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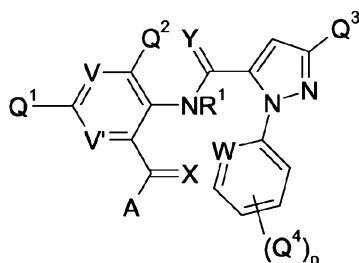
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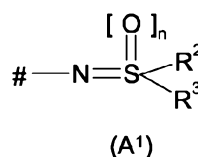
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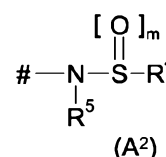
(54) Title: N-THIO-ANTHRANILAMID COMPOUNDS AND THEIR USE AS PESTICIDES



(I)



(A¹)

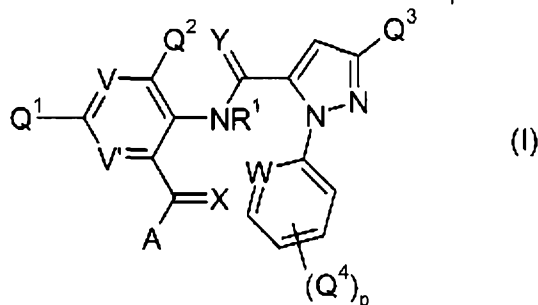


(A²)

(57) Abstract: N-Thio-anthranilamid compounds of Formula (I) wherein A is a group selected from A1 and A2 wherein the variables and the indices are as defined per the description, processes for preparing the compounds (I), pesticidal compositions comprising compounds (I), use of compounds (I) for the control of insects, acarids or nematodes, and methods for treating, controlling, preventing or protecting animals against infestation or infection by parasites by use of compounds of Formula (I).

N-Thio-anthranilamid compounds and their use as pesticides

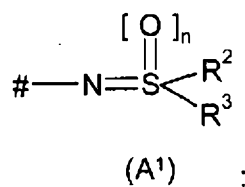
The present invention relates to N-Thio-anthranilamid compounds of formula (I)



5 wherein

10 R^1 is hydrogen; or C_1 - C_{10} -alkyl, C_2 - C_{10} -alkenyl, C_2 - C_{10} -alkynyl, or C_3 - C_8 -cycloalkyl, each of which is unsubstituted or substituted with 1 to 5 groups independently selected from halogen, cyano, nitro, hydroxy, C_1 - C_{10} -alkoxy, C_1 - C_{10} -alkylthio, C_1 - C_{10} -alkylsulfinyl, C_1 - C_{10} -alkylsulfonyl, C_2 - C_{10} -alkoxycarbonyl, C_1 - C_{10} -alkylamino, di(C_1 - C_{10} -alkyl)amino and C_3 - C_8 -cycloalkylamino; or C_1 - C_{10} -alkylcarbonyl, C_1 - C_{10} -alkoxycarbonyl, C_1 - C_{10} -alkylaminocarbonyl, di(C_1 - C_{10} -alkyl)aminocarbonyl;

15 A is A^1



wherein

20 # denotes the binding site;

R^2 and R^3 each independently are R^6 or

25 R^2 and R^3 together with the sulfur atom to which they are attached form a saturated, partially unsaturated or unsaturated 3- to 8-membered ring which contains 1 to 4 heteroatoms selected from oxygen, nitrogen, sulfur, which ring can be fused with one or two saturated, partially unsaturated or unsaturated 5- to 6-membered rings which may contain 1 to 4 heteroatoms selected from oxygen, nitrogen, sulfur, wherein all of the above rings are unsubstituted or substituted by any combination of 1 to 6 groups R^8 ;

30

G is oxygen or sulfur;

R^8 is C_1 - C_{20} -alkyl, C_2 - C_{20} -alkenyl, C_2 - C_{20} -alkynyl, C_3 - C_8 -cycloalkyl, C_3 - C_8 -cycloalkenyl, C_3 - C_8 -cycloalkynyl, phenyl, naphthyl, biphenyl, or a saturated, partially unsaturated or unsaturated 3- to 8-membered ring system which contains 1 to 4 heteroatoms selected from oxygen, nitrogen, sulfur, wherein all of these groups are unsubstituted or substituted by any combination of 1 to 6 groups R^8 ;

R^8 is R^9 ; or two groups R^8 together with the atoms to which they are attached form a saturated, partially unsaturated or unsaturated 3- to 8-membered ring system which may contain 1 to 4 heteroatoms /heterogroups selected from oxygen, nitrogen, sulfur, SO and SO_2 , and which ring system is unsubstituted or substituted with any combination of 1 to 6 groups R^9 .

R^9 is R^{10} , R^{11} , $-C(=G)R^{10}$, $-C(=NOR^{10})R^{10}$, $-C(=NNR^{10_2})R^{10}$, $-C(=G)OR^{10}$, $-C(=G)NR^{10_2}$, $-OC(=G)R^{10}$, $-OC(=G)OR^{10}$, $-NR^{10}C(=G)R^{10}$, $-N[C(=G)R^{10}]_2$, $-NR^{10}C(=G)OR^{10}$, $-C(=G)NR^{10}-NR^{10_2}$, $-C(=G)NR^{10}-NR^{10}[C(=G)R^{10}]$, $-NR^{10}-C(=G)NR^{10_2}$, $-NR^{10}-NR^{10}C(=G)R^{10}$, $-NR^{10}-N[C(=G)R^{10}]_2$, $-N[(C=G)R^{10}]-NR^{10_2}$, $-NR^{10}-NR^{10}[(C=G)GR^{10}]$, $-NR^{10}[(C=G)NR^{10_2}]$, $-NR^{10}[C=NR^{10}]R^{10}$, $-NR^{10}(C=NR^{10})NR^{10_2}$, $-O-NR^{10_2}$, $-O-NR^{10}(C=G)R^{10}$, $-SO_2NR^{10_2}$, $-NR^{10}SO_2R^{10}$, $-SO_2OR^{10}$, $-OSO_2R^{10}$, $-OR^{10}$, $-NR^{10_2}$, $-SR^{10}$, $-SiR^{10_3}$, $-PR^{10_2}$, $-P(=G)R^{10}$, $-SOR^{10}$, $-SO_2R^{10}$, $-PG_2R^{10_2}$, $-PG_3R^{10_2}$, or two groups R^9 together are $(=G)$, $(=N-R^{10})$, $(=CR^{10_2})$, $(=CHR^{10})$, or $(=CH_2)$;

R^{10} is C_1 - C_{10} -alkyl, C_2 - C_{10} -alkenyl, C_2 - C_{10} -alkynyl, C_3 - C_8 -cycloalkyl, C_4 - C_8 -cycloalkenyl, C_3 - C_8 -cycloalkyl- C_1 - C_4 -alkyl, C_4 - C_8 -cycloalkenyl- C_1 - C_4 -alkyl, C_3 - C_8 -cycloalkyl- C_2 - C_4 -alkenyl, C_4 - C_8 -cycloalkenyl- C_2 - C_4 -alkenyl, C_1 - C_{10} -alkyl- C_3 - C_8 -cycloalkyl, C_2 - C_{10} -alkenyl- C_3 - C_8 -cycloalkyl, C_2 - C_{10} -alkynyl- C_3 - C_8 -cycloalkyl, C_1 - C_{10} -alkyl- C_4 - C_8 -cycloalkenyl, C_2 - C_{10} -alkenyl- C_4 - C_8 -cycloalkenyl, C_2 - C_{10} -alkynyl- C_4 - C_8 -cycloalkenyl, or a saturated, partially unsaturated or unsaturated 3- to 8-membered ring system which contains 1 to 4 heteroatoms selected from oxygen, nitrogen, sulfur, wherein the above groups are unsubstituted or substituted with any combination of from 1 to 6 groups R^{11} ;

R^{11} is halogen, cyano, nitro, hydroxy, mercapto, amino, formyl, C_1 - C_{10} -alkylcarbonyl, C_1 - C_{10} -alkoxy, C_2 - C_{10} -alkenyloxy, C_2 - C_{10} -alkynyloxy, C_1 - C_{10} -haloalkoxy, C_3 - C_{10} -haloalkenyloxy, C_3 - C_{10} -haloalkynyloxy, C_3 - C_8 -cycloalkoxy, C_4 - C_8 -cycloalkenyloxy, C_3 - C_8 -halocycloalkoxy, C_4 - C_8 -halocycloalkenyloxy, C_3 - C_8 -cycloalkyl- C_1 - C_4 -alkoxy, C_4 - C_8 -cycloalkenyl- C_1 - C_4 -alkoxy, C_3 - C_8 -cycloalkyl- C_2 - C_4 -alkenyloxy, C_4 - C_8 -cycloalkenyl- C_2 - C_4 -alkenyloxy, C_1 - C_{10} -alkyl- C_3 - C_8 -cycloalkoxy, C_1 - C_{10} -alkenyl- C_3 - C_8 -cycloalkoxy, C_1 - C_{10} -alkynyl- C_3 - C_8 -cycloalkoxy, C_1 - C_{10} -alkyl- C_3 - C_8 -cycloalkenyloxy, C_1 - C_{10} -alkenyl- C_3 - C_8 -cycloalkenyloxy, C_1 - C_4 -alkoxy- C_1 - C_{10} -alkoxy, C_1 - C_4 -alkoxy- C_2 - C_{10} -alkenyloxy, mono- or di(C_1 - C_{10} -alkyl)carbonyl, mono- or di(C_1 - C_{10} -haloalkyl)carbonyl,

mono- or di(C₃-C₈-cycloalkyl)carbamoyl, C₁-C₁₀-alkoxycarbonyl, C₃-C₈-
 cycloalkoxycarbonyl, C₁-C₁₀-alkylcarbonyloxy, C₃-C₈-cyclo alkylcarbonyloxy,
 C₁-C₁₀-haloalkoxycarbonyl, C₁-C₁₀-haloalkylcarbonyloxy, C₁-C₁₀-alkanamido,
 C₁-C₁₀-haloalkanamido, C₂-C₁₀-alkenamido, C₃-C₈-cycloalkanamido, C₃-C₈-
 cycloalkyl-C₁-C₄-alkanamido,
 C₁-C₁₀-alkylthio, C₂-C₁₀-alkenylthio, C₂-C₁₀-alkynylthio, C₁-C₁₀-haloalkylthio,
 C₂-C₁₀-haloalkenylthio, C₂-C₁₀-haloalkynylthio, C₃-C₈-cycloalkylthio, C₃-C₈-
 cycloalkenylthio, C₃-C₈-halocycloalkylthio, C₃-C₈-halocycloalkenylthio, C₃-C₈-
 cycloalkyl- C₁-C₄-alkylthio, C₄-C₈-cycloalkenyl-C₁-C₄-alkylthio, C₃-C₈-
 cycloalkyl- C₂-C₄-alkenylthio, C₄-C₈-cycloalkenyl-C₂-C₄-alkenylthio, C₁-C₁₀-
 alkyl-C₃-C₈-cycloalkylthio, C₁-C₁₀-alkenyl-C₃-C₈-cycloalkylthio, C₁-C₁₀-alkynyl-
 C₃-C₈-cycloalkylthio, C₁-C₁₀-alkyl-C₃-C₈-cycloalkenylthio, C₁-C₁₀-alkenyl-C₃-
 C₈-cycloalkenylthio, C₁-C₁₀-alkylsulfanyl, C₂-C₁₀-alkenylsulfanyl, C₂-C₁₀-
 alkynylsulfanyl, C₁-C₁₀-haloalkylsulfanyl, C₂-C₁₀-haloalkenylsulfanyl, C₂-C₁₀-
 haloalkynylsulfanyl, C₃-C₈-cycloalkylsulfanyl, C₃-C₈-cycloalkenylsulfanyl, C₃-C₈-
 halocycloalkylsulfanyl, C₃-C₈-halocycloalkenylsulfanyl, C₃-C₈-cycloalkyl- C₁-C₄-
 alkylsulfanyl, C₄-C₈-cycloalkenyl-C₁-C₄-alkylsulfanyl, C₃-C₈-cycloalkyl- C₂-C₄-
 alkenylsulfanyl, C₄-C₈-cycloalkenyl-C₂-C₄-alkenylsulfanyl, C₁-C₁₀-alkyl-C₃-C₈-
 cycloalkylsulfanyl, C₁-C₁₀-alkenyl-C₃-C₈-cycloalkylsulfanyl, C₁-C₁₀-alkynyl-C₃-
 C₈-cycloalkylsulfanyl, C₁-C₁₀-alkyl-C₃-C₈-cycloalkenylsulfanyl, C₁-C₁₀-alkenyl-
 C₃-C₈-cycloalkenylsulfanyl, C₁-C₁₀-alkylsulfonyl, C₂-C₁₀-alkenylsulfonyl, C₂-C₁₀-
 alkynylsulfonyl, C₁-C₁₀-haloalkylsulfonyl, C₂-C₁₀-haloalkenylsulfonyl, C₂-C₁₀-
 haloalkynylsulfonyl, C₃-C₈-cycloalkylsulfonyl, C₃-C₈-cycloalkenylsulfonyl, C₃-
 C₈-halocycloalkylsulfonyl, C₃-C₈-halocycloalkenylsulfonyl, C₃-C₈-cycloalkyl-
 C₁-C₄-alkylsulfonyl, C₄-C₈-cycloalkenyl-C₁-C₄-alkylsulfonyl, C₃-C₈-cycloalkyl-
 C₂-C₄-alkenylsulfonyl, C₄-C₈-cycloalkenyl-C₂-C₄-alkenylsulfonyl, C₁-C₁₀-alkyl-
 C₃-C₈-cycloalkylsulfonyl, C₁-C₁₀-alkenyl-C₃-C₈-cycloalkylsulfonyl, C₁-C₁₀-
 alkynyl-C₃-C₈-cycloalkylsulfonyl, C₁-C₁₀-alkyl-C₃-C₈-cycloalkenylsulfonyl, C₁-
 C₁₀-alkenyl-C₃-C₈-cycloalkenylsulfonyl, di(C₁-C₁₀-alkyl)amino, C₁-C₁₀-
 alkylamino, C₂-C₁₀-alkenylamino, C₂-C₁₀-alkynylamino, C₁-C₁₀-alkyl-C₂-C₁₀-
 alkenylamino, C₁-C₁₀-alkyl-C₂-C₁₀-alkynylamino, C₁-C₁₀-haloalkylamino, C₂-
 C₁₀-haloalkenylamino, C₂-C₁₀-haloalkynylamino, C₃-C₈-cycloalkylamino, C₃-
 C₈-cycloalkenylamino, C₃-C₈-halocycloalkylamino, C₃-C₈-
 halocycloalkenylamino, C₃-C₈-cycloalkyl- C₁-C₄-alkylamino, C₄-C₈-
 cycloalkenyl-C₁-C₄-alkylamino, C₃-C₈-cycloalkyl- C₂-C₄-alkenylamino, C₄-C₈-
 cycloalkenyl-C₂-C₄-alkenylamino, C₁-C₁₀-alkyl-C₃-C₈-cycloalkylamino, C₁-C₁₀-
 alkenyl-C₃-C₈-cycloalkylamino, C₁-C₁₀-alkynyl-C₃-C₈-cycloalkylamino, C₁-C₁₀-
 alkyl-C₃-C₈-cycloalkenylamino, C₁-C₁₀-alkenyl-C₃-C₈-cycloalkenylamino,
 tri(C₁-C₁₀-alkyl)silyl, aryl, aryloxy, arylthio, arylamino, aryl-C₁-C₄-alkoxy, aryl-
 C₃-C₄-alkenylloxy, aryl-C₁-C₄-alkylthio, aryl-C₂-C₄-alkenylthio, aryl-C₁-C₄-
 alkylamino, aryl-C₃-C₄-alkenylamino, aryl-di(C₁-C₄-alkyl)silyl, triarylsilyl,
 wherein aryl is phenyl, naphthyl or biphenyl, or

a saturated, partially unsaturated or unsaturated 3- to 8-membered ring system which contains 1 to 4 heteroatoms selected from oxygen, nitrogen, sulfur,

wherein these aryl and these heterocyclic ringsystems are unsubstituted or substituted with any combination of from 1 to 6 groups selected from halogen, cyano, nitro, amino, hydroxy, mercapto, C₁-C₄-alkyl, C₁-C₄-haloalkyl, C₃-C₈-cycloalkyl, C₁-C₄-alkoxy, C₁-C₄-haloalkoxy, C₁-C₄-alkylthio, C₁-C₄-haloalkylthio, di(C₁-C₄-alkyl)amino, C₁-C₄-alkylamino, C₁-C₄-haloalkylamino, formyl and C₁-C₄-alkylcarbonyl;

Q¹ and Q² each independently are hydrogen, halogen, cyano, SCN, nitro, hydroxy, C₁-C₁₀-alkyl, C₁-C₁₀-haloalkyl, C₂-C₁₀-alkenyl, C₂-C₁₀-haloalkenyl, C₂-C₁₀-alkynyl, C₃-C₁₀-haloalkynyl, C₃-C₈-cycloalkyl, C₃-C₈-halocycloalkyl, C₁-C₁₀-alkoxy, C₁-C₁₀-haloalkoxy, C₁-C₁₀-alkylthio, C₁-C₁₀-haloalkylthio, C₁-C₁₀-alkylsulfinyl, C₁-C₁₀-haloalkylsulfinyl, C₁-C₁₀-alkylsulfonyl, C₁-C₁₀-haloalkylsulfonyl, C₁-C₁₀-alkylsulfonyloxy, C₁-C₁₀-haloalkylsulfonyloxy, C₁-C₁₀-alkylamino, di(C₁-C₁₀-alkyl)amino, C₃-C₈-cycloalkylamino, alkylcarbonyl, C₁-C₁₀-alkoxycarbonyl, C₁-C₁₀-alkylaminocarbonyl, di(C₁-C₁₀-alkyl)aminocarbonyl, or tri(C₁-C₁₀)-alkylsilyl, or

Q¹ and Q² are each independently phenyl, benzyl or phenoxy, wherein each ring is unsubstituted or substituted with any combination of from 1 to 3 substituents independently selected from the group halogen, cyano, nitro, C₁-C₁₀-alkyl, C₁-C₁₀-haloalkyl, C₂-C₁₀-alkenyl, C₂-C₁₀-haloalkenyl, C₂-C₁₀-alkynyl, C₃-C₁₀-haloalkynyl, C₃-C₈-cycloalkyl, C₃-C₈-halocycloalkyl, C₁-C₁₀-alkoxy, C₁-C₁₀-haloalkoxy, C₁-C₁₀-alkylthio, C₁-C₁₀-alkylsulfinyl, C₁-C₁₀-alkylsulfonyl, C₁-C₁₀-alkylamino, di(C₁-C₁₀-alkyl)amino, C₃-C₈-cycloalkylamino, C₁-C₁₀-alkyl-C₃-C₈-cycloalkylamino, C₁-C₁₀-alkylcarbonyl, C₁-C₁₀-alkoxycarbonyl, C₁-C₁₀-alkylaminocarbonyl, di(C₁-C₁₀-alkyl)aminocarbonyl and tri(C₁-C₁₀)-alkylsilyl;

Q³ is halogen; or C₁-C₁₀-alkyl, C₁-C₁₀-haloalkyl, C₂-C₁₀-alkenyl, C₂-C₁₀-haloalkenyl, C₂-C₁₀-alkynyl, C₃-C₁₀-haloalkynyl, C₃-C₈-cycloalkyl, C₃-C₈-halocycloalkyl, C₁-C₁₀-alkyl-C₃-C₈-cycloalkyl, C₁-C₁₀-haloalkyl-C₃-C₈-cycloalkyl, each unsubstituted or independently substituted with 1 to 2 groups selected from cyano, C₁-C₁₀-alkoxy, C₁-C₁₀-haloalkoxy, C₁-C₁₀-alkylthio, C₁-C₁₀-haloalkylthio, C₁-C₁₀-alkylsulfinyl, C₁-C₁₀-haloalkylsulfinyl, C₁-C₁₀-alkylsulfonyl, C₁-C₁₀-haloalkylsulfonyl, and C₁-C₁₀-alkoxycarbonyl; or

Q³ is OR¹⁴, S(O)_qR¹⁴, NR¹⁵R¹⁶, OS(O)₂R¹⁷, NR¹⁶S(O)₂R¹⁷, C(S)NH₂, C(R¹⁸)=NOR¹⁸, C₃-C₈-cycloalkyl-C₁-C₄-alkyl, C₁-C₁₀-alkylaminothiocarbonyl, or di(C₁-C₁₀-alkyl)aminothiocarbonyl;

5

R^{14} is C_1 - C_{10} -alkyl, C_1 - C_{10} -haloalkyl, C_2 - C_{10} -alkenyl, C_2 - C_{10} -haloalkenyl, C_2 - C_{10} -alkynyl, C_3 - C_{10} -haloalkynyl, C_3 - C_8 -cycloalkyl, C_3 - C_8 -halocycloalkyl, C_3 - C_8 -cycloalkyl- C_1 - C_4 -alkyl, C_1 - C_4 -alkyl- C_3 - C_8 -cycloalkyl, C_3 - C_8 -halocycloalkyl- C_1 - C_4 -alkyl, C_1 - C_4 -haloalkyl- C_3 - C_8 -cycloalkyl, or C_1 - C_{10} -haloalkylcarbonyl, each unsubstituted or substituted with 1 R^{19} ;

10

R^{15} is C_1 - C_{10} -alkyl, C_1 - C_{10} -haloalkyl, C_2 - C_{10} -alkenyl, C_2 - C_{10} -haloalkenyl, C_2 - C_{10} -alkynyl, C_3 - C_{10} -haloalkynyl, C_3 - C_8 -cycloalkyl, C_3 - C_8 -halocycloalkyl, C_1 - C_4 -alkyl- C_3 - C_8 -cycloalkyl, C_1 - C_4 -haloalkyl- C_3 - C_8 -cycloalkyl, or C_1 - C_{10} -haloalkylcarbonyl, each unsubstituted or substituted with 1 R^{19} ;

15

R^{16} is hydrogen; or C_1 - C_{10} -alkyl, C_1 - C_{10} -haloalkyl, C_2 - C_{10} -alkenyl, C_2 - C_{10} -haloalkenyl, C_2 - C_{10} -alkynyl, C_3 - C_{10} -haloalkynyl, C_3 - C_8 -cycloalkyl, C_3 - C_8 -halocycloalkyl, C_1 - C_4 -alkyl- C_3 - C_8 -cycloalkyl, or C_1 - C_4 -haloalkyl- C_3 - C_8 -cycloalkyl, each unsubstituted or substituted with 1 R^{19} ;

20

R^{17} is C_1 - C_{10} -alkyl, C_1 - C_{10} -haloalkyl, C_2 - C_{10} -alkenyl, C_2 - C_{10} -haloalkenyl, C_2 - C_{10} -alkynyl, C_3 - C_{10} -haloalkynyl, C_3 - C_8 -cycloalkyl, C_3 - C_8 -halocycloalkyl, C_1 - C_4 -alkyl- C_3 - C_8 -cycloalkyl, or C_1 - C_4 -haloalkyl- C_3 - C_8 -cycloalkyl, each unsubstituted or substituted with 1 R^{19} ;

25

R^{19} is cyano, nitro, C_1 - C_{10} -alkoxy, C_1 - C_{10} -haloalkoxy, C_1 - C_{10} -alkylthio, C_1 - C_{10} -haloalkylthio, C_1 - C_{10} -alkylsulfinyl, C_1 - C_{10} -haloalkylsulfinyl, C_1 - C_{10} -alkylsulfonyl, C_1 - C_{10} -haloalkylsulfonyl, C_1 - C_{10} -alkoxycarbonyl, C_1 - C_{10} -alkylamino, or di(C_1 - C_{10} -alkyl)amino; or

30

R^{19} is phenyl or a heteroaromatic 5- or 6-membered ring which contains 1 to 4 heteroatoms selected from oxygen, nitrogen, sulfur, the phenyl radical and the heteroaromatic ring being unsubstituted or substituted with any combination of from 1 to 3 groups selected from halogen, cyano, nitro, C_1 - C_{10} -alkyl, C_1 - C_{10} -haloalkyl, C_2 - C_{10} -alkenyl, C_2 - C_{10} -haloalkenyl, C_2 - C_{10} -alkynyl, C_3 - C_{10} -haloalkynyl, C_3 - C_8 -cycloalkyl, C_3 - C_8 -halocycloalkyl, C_1 - C_{10} -alkoxy, C_1 - C_{10} -haloalkoxy, C_1 - C_{10} -alkylthio, C_1 - C_{10} -alkylsulfinyl, C_1 - C_{10} -alkylsulfonyl, C_1 - C_{10} -alkylamino, di(C_1 - C_{10} -alkyl)amino, C_3 - C_8 -cycloalkylamino, C_1 - C_{10} -alkyl- C_3 - C_8 -cycloalkylamino, C_1 - C_{10} -alkylcarbonyl, C_1 - C_{10} -alkoxycarbonyl, C_1 - C_{10} -alkylaminocarbonyl, di(C_1 - C_{10} -alkyl)aminocarbonyl and tri(C_1 - C_{10} -alkyl)silyl;

35

40

R^{18} is the same or different: hydrogen, C_1 - C_{10} -alkyl, or C_1 - C_{10} -haloalkyl;

q is 0, 1 or 2;

- 5 Q⁴ is halogen, cyano, nitro, hydroxy, COOH, C(O)NH₂, C₁-C₁₀-alkyl, C₁-C₁₀-haloalkyl, C₂-C₁₀-alkenyl, C₂-C₁₀-haloalkenyl, C₂-C₁₀-alkynyl, C₃-C₁₀-haloalkynyl, C₃-C₈-cycloalkyl, C₃-C₈-halocycloalkyl, C₁-C₁₀-alkoxy, C₁-C₁₀-haloalkoxy, C₁-C₁₀-alkylthio, C₁-C₁₀-haloalkylthio, C₁-C₁₀-alkylsulfinyl, C₁-C₁₀-haloalkylsulfinyl, C₁-C₁₀-alkylsulfonyl, C₁-C₁₀-haloalkylsulfonyl, C₁-C₁₀-alkylamino, di(C₁-C₁₀-alkyl)amino, C₃-C₈-cycloalkylamino, C₁-C₁₀-alkylcarbonyl, C₁-C₁₀-alkoxycarbonyl, C₁-C₁₀-alkylaminocarbonyl, di(C₁-C₁₀-alkyl)aminocarbonyl or tri(C₁-C₁₀)-alkylsilyl; or
- 10 Q⁴ is phenyl, benzyl, benzyloxy, phenoxy, a 5- or 6-membered heteroaromatic ring which contains 1 to 4 heteroatoms selected from oxygen, nitrogen, sulfur or an aromatic 8-, 9- or 10-membered fused heterobicyclic ring system which contains 1 to 4 heteroatoms selected from oxygen, nitrogen, sulfur, wherein
- 15 each of the above ring systems is unsubstituted or substituted with any combination of from 1 to 3 groups selected from halogen, cyano, nitro, C₁-C₁₀-alkyl, C₁-C₁₀-haloalkyl, C₂-C₁₀-alkenyl, C₂-C₁₀-haloalkenyl, C₂-C₁₀-alkynyl, C₃-C₁₀-haloalkynyl, C₃-C₈-cycloalkyl, C₃-C₈-halocycloalkyl, C₁-C₁₀-alkoxy, C₁-C₁₀-haloalkoxy, C₁-C₁₀-alkylthio, C₁-C₁₀-alkylsulfinyl, C₁-C₁₀-alkylsulfonyl, C₁-C₁₀-alkylamino, di(C₁-C₁₀-alkyl)amino, C₃-C₈-cycloalkylamino, C₁-C₁₀-alkyl-C₃-C₈-cycloalkylamino, C₁-C₁₀-alkylcarbonyl, C₁-C₁₀-alkoxycarbonyl, C₁-C₁₀-alkylaminocarbonyl, di(C₁-C₁₀-alkyl)aminocarbonyl and tri(C₁-C₁₀)-alkylsilyl;
- 20

X and Y are each independently oxygen or sulfur;

- 25 V and V' are each independently N or CQ²;

W is N, CH or CQ⁴;

- 30 n is 0 or 1;

p is 0, 1, 2, 3, or 4;

or the enantiomers or salts or N-oxides thereof.

- 35 In addition, the present invention relates to processes for preparing the compounds I, pesticidal compositions comprising compounds I and methods for the control of insects, acarids or nematodes by contacting the insect, acarid or nematode or their food supply, habitat or breeding grounds with a pesticidally effective amount of compounds or compositions of formula I.

- 40 Moreover, the present invention also relates to a method of protecting growing plants from attack or infestation by insects or acarids by applying to the foliage of the plants, or

to the soil or water in which they are growing, with a pesticidally effective amount of compositions or compounds of formula I.

5 This invention also provides a method for treating, controlling, preventing or protecting animals against infestation or infection by parasites which comprises orally, topically or parenterally administering or applying to the animals a parasitically effective amount of compositions or compounds of formula I.

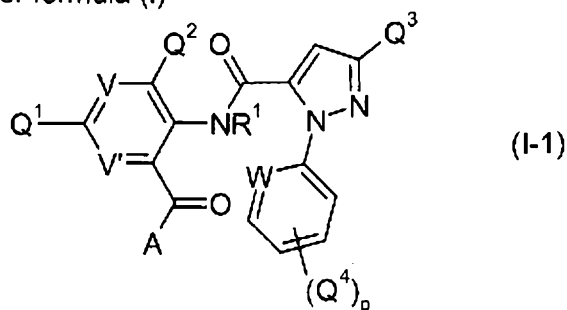
10 In spite of the commercial insecticides, acaricides and nematocides available today, damage to crops, both growing and harvested, caused by insects and nematodes still occurs. Therefore, there is continuing need to develop new and more effective insecticidal, acaricidal and nematocidal agents.

15 It was therefore an object of the present invention to provide new pesticidal compositions, new compounds and new methods for the control of insects, acarids or nematodes and of protecting growing plants from attack or infestation by insects, arachnids or nematodes.

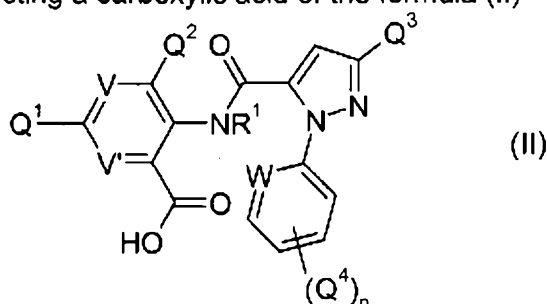
20 We have found that these objects are achieved by the compositions and the compounds of formula I. Furthermore, we have found processes for preparing the compounds of formula I.

25 Anthranilamide compounds have been described in a number of patent applications (WO 01/70671, WO 03/015518, WO 03/015519, WO 04/046129). N-Thio-anthranilamide compounds have not been described in the prior art.

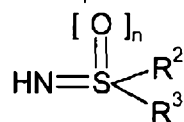
Compounds of the formula (I-1) wherein X and Y are oxygen and the other substituents are as defined above for formula (I)



30 can be prepared by reacting a carboxylic acid of the formula (II)



wherein the variables are as defined for formula (I) is reacted in the presence of a base with a compound of the formula A¹-H,



(A¹-H)

wherein the variables are as defined for formula (I).

5

Suitable activated derivatives of the acid which may be used are, for example, anhydrides, azolides, or acid halides.

10

The activated derivatives of the acid can be obtained according to procedures known in the art, e.g. as listed in "Comprehensive Organic Reactions" VCH Publishers 1989, for the anhydride: pp 965-66, for the acid halides: p 978.

15

Suitable bases are, for example, amines such as triethylamine, diisopropylethylamine, pyridine or lutidine or else alkali hydrides, hydroxides, carbonates, or alkaline earth metal hydroxides, carbonates or bicarbonates.

The amount of the base that can be used in the reaction is usually 1 to 5 moles relative to 1 mole of compound (II).

20

The reaction is advantageously carried out in an inert solvent such as dichloromethane, chloroform, carbon tetrachloride, benzene, toluene, diethyl ether or tetrahydrofuran, or mixtures of these solvents, in a temperature range between 0°C and 100°C, preferably between 20°C and 50°C.

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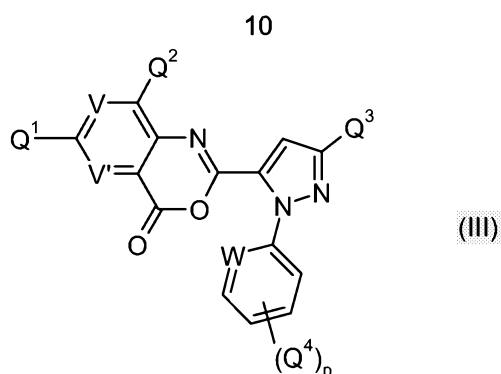
A preferred procedure for the preparation of specific compounds of formula (I-1) involves the reaction of A¹-H or A²-H, respectively, with a benzoxazinone of formula (III)

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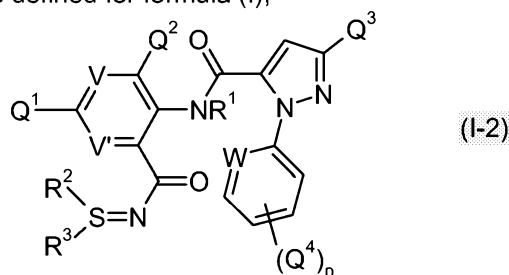
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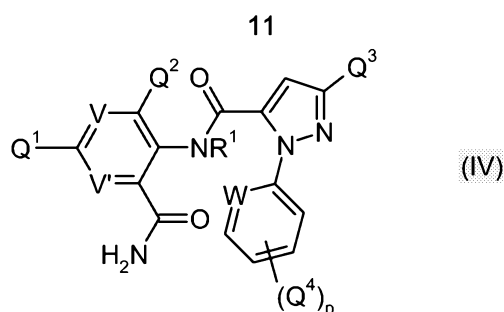
wherein the variables are as defined for formula (I). Typical procedures involve combination of the compounds A¹-H or A²-H with the benzoxazinone of formula (III) in inert solvent such as dichloromethane, chloroform, carbon tetrachloride, benzene, toluene, diethyl ether or tetrahydrofuran, or mixtures of these solvents, in a temperature range between 0°C and 100°C, preferably between 20°C and 50 °C. Addition of a base can be beneficial. Suitable bases are, for example, tertiary amines such as triethylamine, diisopropylethylamine, pyridine or lutidine or else alkali hydrides, hydroxides, carbonates, or alkaline earth metal hydroxides, carbonates or bicarbonates. The amount of the base that can be used in the reaction is usually 1 to 5 moles relative to 1 mole of compound (III).

Benzoxazinones are well documented in the chemical literature and are available via known methods that involve the coupling of either an anthranilic acid or an isatoic anhydride with an acid chloride. For references to the synthesis and chemistry of benzoxazinones see Jakobsen et al, *Bioorganic and Medicinal Chemistry*, 2000, 8, 2095-2103 and references cited therein. See also Coppola, *J. Heterocyclic Chemistry*, 1999, 36, 563-588. The benzoxazinones of formula III can also be prepared according to the procedures described in WO 04/046129 or WO 04/011447 as well as according to references cited therein and suitable modifications thereof.

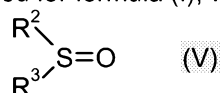
Compounds of the formula (I-2) in which A is A¹, n is 0, X and Y are oxygen and the other variables are as defined for formula (I),



can be prepared by reacting an amide of the formula (IV)



wherein the variables are as defined for formula (I), with a sulfoxide of the formula (V),



- in the presence of a condensating agent, giving the compounds of formula (I-2) with
 5 elimination of water. Suitable condensing agents are, for example, phosphorous oxy-
 chloride, phosphorous (V) oxide, methanesulfonyl chloride, sulfonyl chloride, sulfur tri-
 chloride, boron trifluoride, dicyclohexylcarbodiimide, aryl cyanates or acid anhydrides,
 preferably trifluoroacetic anhydride or trifluoromethanesulfonic anhydride.
- 10 In the compounds of the formula (I) prepared as described above in which A is A¹, n is
 0, X and Y are oxygen and the other variables are as defined for formula (I) the sulfur
 atom can be oxidized to give the respective compounds of the formula (I) in which n is
 1. Suitable oxidizing agents are, for example, sodium periodate or organic peracids,
 such as 3-chloroperbenzoic acid, see e.g. Houben-Weyl, Methoden der Organischen
 15 Chemie, Bd. E11, p. 1299 ff., G. Thieme Verlag, Stuttgart 1985.

The carboxylic acids of formula (II) and the amides of formula (IV) can be prepared, for
 example, according to the procedures described in WO 04/046129 or WO 04/011447
 as well as according to references cited therein and suitable modifications thereof.

- 20 After completion of the reaction, the compounds of formula I can be isolated by em-
 ploying conventional methods such as adding the reaction mixture to water, extracting
 with an organic solvent, concentrating the extract and the like. The isolated compound
 (I) can be purified by a technique such as chromatography, recrystallization and the
 25 like, if necessary.

Compounds of formula A¹-H can be prepared according to procedures known in the
 art, e.g. as described in US 6 136 983 and references cited therein.

- 30 Compounds of formula A²-H can be prepared according to procedures known in the
 art, e.g. as described in WO 03/097589 and references cited therein.

Sulfoxides of formula V can be obtained according to procedures known in the art, e.g.
 as described in J. March, Advanced Organic Chemistry, 4th Edition, Wiley, 1992, p.

- 35 1297.

12

Compounds of formula I, II, III, IV, V, and compounds A¹-H and A²-H which cannot be prepared according to the above procedures can be prepared according to suitable modifications of the above procedures.

- 5 The preparation of the compounds of formula I above may lead to them being obtained as isomer mixtures. If desired, these can be resolved by the methods customary for this purpose, such as crystallization or chromatography, also on optically active adsorbate, to give the pure isomers.
- 10 Agronomically acceptable salts of the compounds I can be formed in a customary manner, e.g. by reaction with an acid of the anion in question.

In this specification and in the claims, reference will be made to a number of terms that shall be defined to have the following meanings:

- 15 "Salt" as used herein includes adducts of compounds I with maleic acid, dimaleic acid, fumaric acid, difumaric acid, methane sulfenic acid, methane sulfonic acid, and succinic acid. Moreover, included as "salts" are those that can form with, for example, amines, metals, alkaline earth metal bases or quaternary ammonium bases, including zwitterions.
- 20 Suitable metal and alkaline earth metal hydroxides as salt formers include the salts of barium, aluminum, nickel, copper, manganese, cobalt zinc, iron, silver, lithium, sodium, potassium, magnesium or calcium. Additional salt formers include chloride, sulfate, acetate, carbonate, hydride, and hydroxide. Desirable salts include adducts of compounds I with maleic acid, dimaleic acid, fumaric acid, difumaric acid, and methane
- 25 sulfonic acid.

"Halogen" will be taken to mean fluoro, chloro, bromo and iodo.

- The term "alkyl" as used herein refers to a branched or unbranched saturated hydrocarbon group having 1 to 10 carbon atoms, such as, and preferably, C₁-C₆-alkyl, for
- 30 example methyl, ethyl, propyl, 1-methylethyl, butyl, 1-methylpropyl, 2-methylpropyl, 1,1-dimethylethyl, pentyl, 1-methylbutyl, 2-methylbutyl, 3-methylbutyl, 2,2-dimethylpropyl, 1-ethylpropyl, hexyl, 1,1-dimethylpropyl, 1,2-dimethylpropyl, 1-methylpentyl, 2-methylpentyl, 3-methylpentyl, 4-methylpentyl, 1,1-dimethylbutyl, 1,2-dimethylbutyl, 1,3-
- 35 dimethylbutyl, 2,2-dimethylbutyl, 2,3-dimethylbutyl, 3,3-dimethylbutyl, 1-ethylbutyl, 2-ethylbutyl, 1,1,2-trimethylpropyl, 1,2,2-trimethylpropyl, 1-ethyl-1-methylpropyl and 1-ethyl-2-methylpropyl.

- The term "haloalkyl" as used herein refers to a straight-chain or branched alkyl group
- 40 having 1 to 10 carbon atoms (as mentioned above), where some or all of the hydrogen atoms in these groups may be replaced by halogen atoms as mentioned above, for example C₁-C₂-haloalkyl, such as chloromethyl, bromomethyl, dichloromethyl, tri-

chloromethyl, fluoromethyl, difluoromethyl, trifluoromethyl, chlorofluoromethyl, dichloro-fluoromethyl, chlorodifluoromethyl, 1-chloroethyl, 1-bromoethyl, 1-fluoroethyl, 2-fluoroethyl, 2,2-difluoroethyl, 2,2,2-trifluoroethyl, 2-chloro-2-fluoroethyl, 2-chloro-2,2-difluoroethyl, 2,2-dichloro-2-fluoroethyl, 2,2,2-trichloroethyl and pentafluoroethyl;

5

Similarly, "alkoxy" and "alkylthio" refer to straight-chain or branched alkyl groups having 1 to 10 carbon atoms (as mentioned above) bonded through oxygen or sulfur linkages, respectively, at any bond in the alkyl group. Examples include methoxy, ethoxy, propoxy, isopropoxy, methylthio, ethylthio, propylthio, isopropylthio, and n-butylthio.

10

Similarly, "alkylamino" refers to a nitrogen atom which carries 1 or 2 straight-chain or branched alkyl groups having 1 to 10 carbon atoms (as mentioned above) which may be the same or different. Examples include methylamino, dimethylamino, ethylamino, diethylamino, methylethylamino, isopropylamino, or methylisopropylamino.

15

Similarly, "alkylsulfinyl" and "alkylsulfonyl" refer to straight-chain or branched alkyl groups having 1 to 10 carbon atoms (as mentioned above) bonded through -S(=O)- or -S(=O)₂-linkages, respectively, at any bond in the alkyl group. Examples include methylsulfinyl and methylsulfonyl.

20

The term "alkylcarbonyl" refers to straight-chain or branched alkyl groups having 1 to 10 carbon atoms (as mentioned above) bonded through a -C(=O)- linkage, respectively, at any bond in the alkyl group. Examples include acetyl, propionyl, butyryl, or 2-methylbutyryl.

25

The term "alkenyl" as used herein intends a branched or unbranched unsaturated hydrocarbon group having 2 to 6 carbon atoms and a double bond in any position, such as ethenyl, 1-propenyl, 2-propenyl, 1-methyl-ethenyl, 1-butenyl, 2-butenyl, 3-butenyl, 1-methyl-1-propenyl, 2-methyl-1-propenyl, 1-methyl-2-propenyl, 2-methyl-2-propenyl; 1-pentenyl, 2-pentenyl, 3-pentenyl, 4-pentenyl, 1-methyl-1-butenyl, 2-methyl-1-butenyl, 3-methyl-1-butenyl, 1-methyl-2-butenyl, 2-methyl-2-butenyl, 3-methyl-2-butenyl, 1-methyl-3-butenyl, 2-methyl-3-butenyl, 3-methyl-3-butenyl, 1,1-dimethyl-2-propenyl, 1,2-dimethyl-1-propenyl, 1,2-dimethyl-2-propenyl, 1-ethyl-1-propenyl, 1-ethyl-2-propenyl, 1-hexenyl, 2-hexenyl, 3-hexenyl, 4-hexenyl, 5-hexenyl, 1-methyl-1-pentenyl, 2-methyl-1-pentenyl, 3-methyl-1-pentenyl, 4-methyl-1-pentenyl, 1-methyl-2-pentenyl, 2-methyl-2-pentenyl, 3-methyl-2-pentenyl, 4-methyl-2-pentenyl, 1-methyl-3-pentenyl, 2-methyl-3-pentenyl, 3-methyl-3-pentenyl, 4-methyl-3-pentenyl, 1-methyl-4-pentenyl, 2-methyl-4-pentenyl, 3-methyl-4-pentenyl, 4-methyl-4-pentenyl, 1,1-dimethyl-2-butenyl, 1,1-dimethyl-3-butenyl, 1,2-dimethyl-1-butenyl, 1,2-dimethyl-2-butenyl, 1,2-dimethyl-3-butenyl, 1,3-dimethyl-1-butenyl, 1,3-dimethyl-2-butenyl, 1,3-dimethyl-3-butenyl, 2,2-dimethyl-3-butenyl, 2,3-dimethyl-1-butenyl, 2,3-dimethyl-2-butenyl, 2,3-dimethyl-3-butenyl, 3,3-dimethyl-1-butenyl, 3,3-dimethyl-2-butenyl, 1-ethyl-1-butenyl, 1-ethyl-2-

35

40

butenyl, 1-ethyl-3-butenyl, 2-ethyl-1-butenyl, 2-ethyl-2-butenyl, 2-ethyl-3-butenyl, 1,1,2-trimethyl-2-propenyl, 1-ethyl-1-methyl-2-propenyl, 1-ethyl-2-methyl-1-propenyl and 1-ethyl-2-methyl-2-propenyl;

- 5 The term "alkynyl" as used herein refers to a branched or unbranched unsaturated hydrocarbon group containing at least one triple bond, such as ethynyl, propynyl, 1-butynyl, 2-butynyl, and the like.

- A saturated, partially unsaturated or unsaturated 3- to 8-membered ring system which contains 1 to 4 heteroatoms selected from oxygen, nitrogen, sulfur, is a ring system wherein two oxygen atoms must not be in adjacent positions and wherein at least 1 carbon atom must be in the ring system e.g. thiophen, furan, pyrrol, thiazol, oxazol, imidazol, isothiazol, isoxazol, pyrazol, 1,3,4-oxadiazol, 1,3,4-thiadiazol, 1,3,4-triazol, 1,2,4-oxadiazol, 1,2,4-thiadiazol, 1,2,4-triazol, 1,2,3-triazol, 1,2,3,4-tetrazol, benzo[b]thiophen, benzo[b]furan, indol, benzo[c]thiophen, benzo[c]furan, isoindol, benzoxazol, benzothiazol, benzimidazol, benzisoxazol, benzisothiazol, benzopyrazol, benzothiadiazol, benzotriazol, dibenzofuran, dibenzothiophen, carbazol, pyridin, pyrazin, pyrimidin, pyridazin, 1,3,5-triazin, 1,2,4-triazin, 1,2,4,5-tetrazin, chinolin, isochinolin, chinoxalin, chinazolin, cinnolin, 1,8-naphthyridin, 1,5-naphthyridin, 1,6-naphthyridin, 1,7-naphthyridin, phthalazin, pyridopyrimidin, purin, pteridin, 4H-chinolizin, piperidin, pyrrolidin, oxazolin, tetrahydrofuran, tetrahydropyran, isoxazolidin or thiazolidin.
- 10
15
20

- A saturated, partially unsaturated or unsaturated 3- to 8-membered ring system which contains 1 to 4 heteroatoms selected from oxygen, nitrogen, sulfur also is e.g.
- 25 a saturated, partially unsaturated or unsaturated 5-or 6-membered heterocycle which contains 1 to 4 heteroatoms selected from oxygen, nitrogen and sulfur, such as pyridine, pyrimidine, (1,2,4)-oxadiazole, (1,3,4)-oxadiazole, pyrrole, furan, thiophene, oxazole, thiazole, imidazole, pyrazole, isoxazole, 1,2,4-triazole, tetrazole, pyrazine, pyridazine, oxazoline, thiazoline, tetrahydrofuran, tetrahydropyran, morpholine, piperidine, piperazine, pyrroline, pyrrolidine, oxazolidine, thiazolidine, oxirane or oxetane ; or
- 30

- a saturated, partially unsaturated or unsaturated 5-or 6-membered heterocycle which contains 1 nitrogen atom and 0 to 2 further heteroatoms selected from oxygen, nitrogen and sulfur, preferably from oxygen and nitrogen, such as piperidine, piperazin and morpholine.
- 35

- Preferably, this ring system is a saturated, partially unsaturated or unsaturated 3- to 6-membered ring system which contains 1 to 4 heteroatoms selected from oxygen, nitrogen, sulfur, wherein two oxygen atoms must not be in adjacent positions and wherein at least 1 carbon atom must be in the ring system.
- 40

Most preferably, this ring system is a radical of pyridine, pyrimidine, (1,2,4)-oxadiazol, 1,3,4-oxadiazol, pyrrol, furan, thiophen, oxazol, thiazol, imidazol, pyrazol, isoxazol, 1,2,4-triazol, tetrazol, pyrazin, pyridazin, oxazolin, thiazolin, tetrahydrofuran, tetrahydropyran, morpholin, piperidin, piperazin, pyrrolin, pyrrolidin, oxazolidin, thiazolidin, oxiran or oxetan.

Tri(C₁-C₁₀)alkylsilyl refers to a silicon atom having 3 straight-chain or branched C₁-C₁₀-alkyl groups as defined above which may be the same or different. Examples include trimethylsilyl, triethylsilyl, triphenylsilyl or triisopropylsilyl.

10

Cycloalkyl: monocyclic 3- to 6-, or 8-membered saturated carbon atom rings, e.g. C₃-C₈-cycloalkyl such as cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, or cyclooctyl.

15 With respect to the intended use of the compounds of formula I, particular preference is given to the following meanings of the substituents, in each case on their own or in combination:

20 A compound of formula I wherein R¹ is hydrogen, C₁-C₆-alkyl, cyano, C₁-C₆-alkylsulfonyl, or C₂-C₆-alkoxycarbonyl, preferably hydrogen or C₁-C₄-alkyl, most preferably hydrogen.

A compound of formula I wherein A is A¹.

25 A compound of formula I wherein A is A².

A compound of formula I wherein R² and R³ each independently are R⁶, -C(=O)R⁷, -C(=NOR⁷)R⁷, -C(=NNR⁷₂)R⁷, -C(=O)OR⁷, -C(=O)NR⁷₂, -OC(=O)R⁷, -OC(=O)OR⁷, C(=O)NR⁷-NR⁷₂, -C(=O)NR⁷-NR⁷[C(=O)R⁷], or R² and R³ together with the sulfur atom to which they are attached form a saturated, partially unsaturated or unsaturated 3- to 8-membered ring which contains 1 to 4 heteroatoms selected from oxygen, nitrogen, sulfur, which ring can be fused with one or two saturated, partially unsaturated or unsaturated 5- to 6-membered rings which may contain 1 to 4 heteroatoms selected from oxygen, nitrogen, sulfur, wherein all of the above rings are unsubstituted or substituted by any combination of 1 to 6 groups R⁸.

40 More preferably, R² and R³ each independently are R⁶ or R² and R³ together with the sulfur atom to which they are attached form a saturated, partially unsaturated or unsaturated 3- to 8-membered ring which contains 1 to 4 heteroatoms selected from oxygen, nitrogen, sulfur, which ring can be fused with one or two saturated, partially unsaturated or unsaturated 5- to 6-membered rings which may contain 1 to 4 heteroa-

toms selected from oxygen, nitrogen, sulfur, wherein all of the above rings are unsubstituted or substituted by any combination of 1 to 6 groups R⁸.

Even more preferred are compounds of formula I wherein R² and R³ each independently are R⁶, preferably hydrogen, C₁-C₂₀-alkyl, C₂-C₂₀-alkenyl, C₂-C₂₀-alkynyl, C₃-C₈-cycloalkyl, C₃-C₈-cycloalkenyl, C₃-C₈-cycloalkynyl, phenyl, naphthyl, biphenyl, or a saturated, partially unsaturated or unsaturated 3- to 8-membered ring which contains 1 to 4 heteroatoms selected from oxygen, nitrogen, sulfur, wherein all of these groups are unsubstituted or substituted by any combination of 1 to 6 groups R⁹.

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Especially preferred are compounds of formula I wherein R² and R³ each independently are C₁-C₁₀-alkyl, C₂-C₁₀-alkenyl, C₂-C₁₀-alkynyl, C₃-C₈-cycloalkyl, or phenyl, wherein these groups are unsubstituted or substituted by any combination of 1 to 6 groups selected from R¹⁰ or R¹¹, and

15

R¹⁰ is C₁-C₁₀-alkyl, C₃-C₈-cycloalkyl, C₁-C₁₀-alkyl-C₃-C₈-cycloalkyl or a saturated, partially unsaturated or unsaturated 3- to 8-membered ring which contains 1 to 4 heteroatoms selected from oxygen, nitrogen, sulfur, wherein these groups are unsubstituted or substituted with any combination of from 1 to 6 groups R¹¹, and

20

R¹¹ is halogen, cyano, nitro, hydroxy, mercapto, amino, formyl, C₁-C₁₀-alkylcarbonyl, C₁-C₁₀-alkoxy, C₂-C₁₀-alkenyloxy, C₂-C₁₀-alkynyloxy, C₁-C₁₀-haloalkoxy, C₃-C₈-cycloalkoxy, C₃-C₈-halocycloalkoxy, C₁-C₁₀-alkoxycarbonyl, C₃-C₈-cycloalkoxycarbonyl, C₁-C₁₀-alkylcarbonyloxy, C₃-C₈-cycloalkylcarbonyloxy, C₁-C₁₀-haloalkoxycarbonyl, C₁-C₁₀-haloalkylcarbonyloxy, C₁-C₁₀-alkanamido, C₃-C₈-cycloalkanamido, C₁-C₁₀-alkylthio, C₂-C₁₀-alkenylthio, C₂-C₁₀-alkynylthio, C₁-C₁₀-haloalkylthio, C₃-C₈-cycloalkylthio, C₃-C₈-halocycloalkylthio, C₃-C₈-cycloalkyl-C₁-C₄-alkylthio, C₁-C₁₀-alkylsulfinyl, C₂-C₁₀-alkenylsulfinyl, C₂-C₁₀-alkynylsulfinyl, C₁-C₁₀-haloalkylsulfinyl, C₃-C₈-cycloalkylsulfinyl, C₃-C₈-halocycloalkenylsulfinyl, C₃-C₈-cycloalkyl-C₁-C₄-alkylsulfinyl, C₁-C₁₀-alkylsulfonyl, C₂-C₁₀-alkenylsulfonyl, C₂-C₁₀-alkynylsulfonyl, C₁-C₁₀-haloalkylsulfonyl, C₃-C₈-cycloalkylsulfonyl, C₃-C₈-halocycloalkylsulfonyl, C₃-C₈-cycloalkyl-C₁-C₄-alkylsulfonyl, di(C₁-C₁₀-alkyl)amino, C₁-C₁₀-alkylamino, C₂-C₁₀-alkenylamino, C₂-C₁₀-alkynylamino, C₁-C₁₀-alkyl-C₂-C₁₀-alkenylamino, C₁-C₁₀-alkyl-C₂-C₁₀-alkynylamino, C₁-C₁₀-haloalkylamino, C₂-C₁₀-haloalkenylamino, C₃-C₈-cycloalkylamino, tri(C₁-C₁₀-alkyl)silyl, aryl, aryloxy, arylthio, arylamino, wherein aryl is phenyl, naphthyl or biphenyl, or a saturated, partially unsaturated or unsaturated 3- to 8-membered ring system which contains 1 to 4 heteroatoms selected from oxygen, nitrogen, sulfur, wherein these aryl and these heterocyclic ringsystems are unsubstituted or substituted with any combination of from 1 to 6 groups selected from halogen, cyano, nitro, amino, hydroxy, mercapto, C₁-C₄-alkyl, C₁-C₄-haloalkyl, C₁-C₄-alkoxy, C₁-C₄-haloalkoxy, C₁-C₄-alkylthio, C₁-C₄-haloalkylthio, di(C₁-C₄-alkyl) amino and C₁-C₄-alkylamino.

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More preferred are compounds of formula I wherein R^2 and R^3 each independently are C_1 - C_{10} -alkyl, C_2 - C_{10} -alkenyl, C_2 - C_{10} -alkynyl, C_3 - C_8 -cycloalkyl, or phenyl, wherein these groups are unsubstituted or substituted by any combination of 1 to 6 groups selected from R^{11} , and

5

R^{11} is halogen, cyano, nitro, hydroxy, mercapto, amino, C_1 - C_{10} -alkoxy, C_1 - C_{10} -haloalkoxy, C_3 - C_8 -cycloalkoxy, C_1 - C_{10} -alkoxycarbonyl, C_1 - C_{10} -alkylcarbonyloxy, C_1 - C_{10} -alkanamido, C_1 - C_{10} -alkylthio, C_1 - C_{10} -alkylsulfinyl, C_1 - C_{10} -alkylsulfonyl, di(C_1 - C_{10} -alkyl)amino or C_1 - C_{10} -alkylamino.

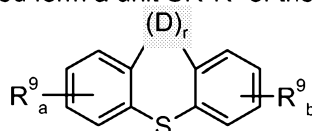
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Preferred are also compounds of formula I wherein R^2 and R^3 together with the sulfur atom to which they are attached form a 5- or 6-membered heterocycle which besides the sulfur atom contains 1 nitrogen or 1 oxygen atom, wherein these groups are unsubstituted or substituted by any combination of 1 to 6 groups selected from with any combination of from 1 to 6 groups selected from halogen, cyano, nitro, amino, hydroxy, mercapto, C_1 - C_4 -alkyl, C_1 - C_4 -haloalkyl, C_1 - C_4 -alkoxy, C_1 - C_4 -haloalkoxy, C_1 - C_4 -alkylthio, C_1 - C_4 -haloalkylthio, di(C_1 - C_4 -alkyl) amino and C_1 - C_4 -alkylamino.

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Preferred are also compounds of formula I wherein R^2 and R^3 together with the sulfur atom to which they are attached form a unit SR^2R^3 of the following formula:

20



wherein

r is 0 or 1;

D is a direct bond, branched or straight C_1 - C_4 -alkylene, O, $S(O)_{0,1,2}$ or NR^i , preferably CH_2 , O, or NR^i ;

25

R^9 is as defined above for compounds of formula I;

R^i is hydrogen, C_1 - C_4 -alkyl, C_1 - C_4 -alkylcarbonyl, C_1 - C_4 -alkoxycarbonyl, C_1 - C_4 -alkylaminocarbonyl, di(C_1 - C_4 -alkyl)aminocarbonyl, or C_1 - C_4 -alkylsulfonyl;

a, b are the same or different 0, 1, 2, 3 or 4, preferably 0, 1, or 2.

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When $r = 0$ then the both arylgroups are unbridged.

Preferred are compounds of formula I wherein R^9 is R^{10} , R^{11} , or $-C(=O)R^{10}$, $-C(=NOR^{10})R^{10}$, $-C(=NNR^{10}_2)R^{10}$, $-C(=O)OR^{10}$, $-C(=O)NR^{10}_2$, $-C(=O)NR^{10}-NR^{10}_2$, $-C(=O)NR^{10}-NR^{10}[C(=O)R^{10}]$, $-SO_2NR^{10}_2$, $-OR^{10}$, $-NR^{10}_2$, or $-SR^{10}$.

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Preferred are compounds of formula I wherein R^4 is $NR^{12}R^{13}$ and

R^{12} and R^{13} are each independently hydrogen, C_1 - C_{20} -alkyl, C_2 - C_{20} -alkenyl or C_2 - C_{20} -alkynyl, each of which is unsubstituted or substituted by from 1 to 6 groups selected from C_1 - C_4 -alkoxy, C_1 - C_4 -alkylthio, CN, NO_2 , formyl, C_1 - C_4 -alkylcarbonyl, C_1 - C_4 -

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alkoxycarbonyl, C₁-C₄-alkylaminocarbonyl, di(C₁-C₄-alkyl)aminocarbonyl, C₁-C₄-alkylsulfinyl, C₁-C₄-alkylsulfonyl, C₃-C₈-cycloalkyl, and phenyl, wherein phenyl itself is unsubstituted or substituted by 1 to 4 substituents selected from halogen, C₁-C₄-alkyl, C₁-C₄-alkoxy, C₁-C₄-fluoroalkyl, C₁-C₄-alkyloxycarbonyl, trifluoromethylsulfonyl, formyl, nitro and cyano; or

C₁-C₂₀-haloalkyl, C₂-C₂₀-haloalkenyl, C₂-C₂₀-haloalkynyl, C₅-C₁₀-cycloalkenyl, or a saturated or partially unsaturated or unsaturated 3- to 8-membered ring system which contains 1 to 4 heteroatoms selected from oxygen, nitrogen, sulfur, wherein this ring system is unsubstituted or substituted by 1 to 4 substituents selected from halogen, C₁-C₄-alkyl, C₁-C₄-alkoxy, C₁-C₄-fluoroalkyl, C₁-C₄-alkyloxycarbonyl, trifluoromethylsulfonyl, formyl, nitro and cyano; or

R¹² and R¹³ together with the nitrogen atom to which they are attached may also form a saturated or partially unsaturated 5- to 8-membered heterocycle which besides the one nitrogen atom contains 0 to 2 further heteroatoms selected from oxygen, nitrogen, sulfur and may contain 1 or 2 carbonyl groups or thiocarbonyl groups and which is unsubstituted or substituted by from 1 to 4 groups selected from C₁-C₄-alkyl, C₁-C₄-alkoxy and C₁-C₄-haloalkyl.

More preferred are compounds of formula I wherein R⁴ is NR¹²R¹³ and

R¹² and R¹³ are each independently hydrogen, C₁-C₂₀-alkyl, C₂-C₂₀-alkenyl or C₂-C₂₀-alkynyl, each of which is unsubstituted or substituted by from 1 to 3 CN, C₁-C₂₀-haloalkyl, or R¹² and R¹³ together with the nitrogen atom to which they are attached may also form a saturated or partially unsaturated 5- to 8-membered heterocycle which besides the one nitrogen atom contains 0 to 2 further heteroatoms selected from oxygen, nitrogen, sulfur, and may contain 1 or 2 carbonyl groups or thiocarbonyl groups and which is unsubstituted or substituted by from 1 to 4 groups selected from C₁-C₄-alkyl, C₁-C₄-alkoxy and C₁-C₄-haloalkyl.

Especially preferred are compounds of formula I wherein R⁴ is NR¹²R¹³ and R¹² and R¹³ together with the nitrogen atom to which they are attached are a saturated or partially unsaturated 5- or 6-membered nitrogen heterocycle which may be substituted by from 1 to 4 groups selected from C₁-C₄-alkyl, C₁-C₄-alkoxy and C₁-C₄-haloalkyl, in particular 2,5-dihydropyrrol-1-yl, 2,3-dihydropyrrol-1-yl, 1-pyrrolidinyl, 1-piperidinyl, 4-morpholinyl, 2-methylmorpholin-4-yl, 2,6-dimethylmorpholin-4-yl, or 1-methylpiperazin-4-yl.

Preferred are compounds of formula I wherein R⁵ is hydrogen.

Preferred are compounds of formula I wherein Q¹ is hydrogen, halogen, cyano, SCN, nitro, hydroxy, C₁-C₁₀-alkyl, C₁-C₁₀-haloalkyl, C₃-C₈-cycloalkyl, C₁-C₁₀-alkoxy, C₁-C₁₀-

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haloalkoxy, C₁-C₁₀-alkylthio, C₁-C₁₀-haloalkylthio, C₁-C₁₀-alkylsulfonyl, C₁-C₁₀-alkylsulfonyloxy, C₁-C₁₀-alkylamino or di(C₁-C₁₀-alkyl)amino, most preferably hydrogen, halogen, cyano, C₁-C₄-alkyl or C₁-C₄-haloalkyl.

- 5 Preferred are compounds of formula I wherein Q² is halogen, cyano, SCN, nitro, hydroxy, C₁-C₁₀-alkyl, C₁-C₁₀-haloalkyl, C₃-C₈-cycloalkyl, C₁-C₁₀-alkoxy, C₁-C₁₀-haloalkoxy, C₁-C₁₀-alkylthio, C₁-C₁₀-haloalkylthio, C₁-C₁₀-alkylsulfonyl, C₁-C₁₀-alkylsulfonyloxy, C₁-C₁₀-alkylamino or di(C₁-C₁₀-alkyl)amino, most preferably halogen, cyano, C₁-C₄-alkyl or C₁-C₄-haloalkyl.

- 10 Preferred are compounds of formula I wherein Q³ is halogen, C₁-C₁₀-alkyl, C₁-C₁₀-haloalkyl, C₂-C₁₀-alkynyl, C₃-C₈-cycloalkyl, C₃-C₈-halocycloalkyl, each unsubstituted or independently substituted with 1 to 2 groups selected from cyano, C₁-C₁₀-alkoxy, C₁-C₁₀-haloalkoxy or C₁-C₁₀-alkylthio, or

- 15 Q³ is OR¹⁴, S(O)_qR¹⁴, NR¹⁵R¹⁶, OS(O)₂R¹⁷, C(S)NH₂, C(R¹⁸)=NOR¹⁸; and

R¹⁴ is C₁-C₁₀-alkyl or C₃-C₈-cycloalkyl unsubstituted or substituted with 1 R¹⁹; and

- 20 R¹⁵ is C₁-C₁₀-alkyl, C₁-C₁₀-haloalkyl, C₂-C₁₀-alkenyl, C₂-C₁₀-alkynyl, each unsubstituted or substituted with 1 R¹⁹; and

R¹⁶ is hydrogen, C₁-C₁₀-alkyl, C₁-C₁₀-haloalkyl, C₂-C₁₀-alkenyl, C₂-C₁₀-alkynyl, each unsubstituted or substituted with 1 R¹⁹; and

- 25 R¹⁷ is C₁-C₁₀-alkyl, C₁-C₁₀-haloalkyl, C₂-C₁₀-alkenyl, C₂-C₁₀-alkynyl, C₃-C₈-cycloalkyl, each unsubstituted or substituted with 1 R¹⁹; and

R¹⁸ is hydrogen, C₁-C₁₀-alkyl, or C₁-C₁₀-haloalkyl; and

- 30 R¹⁹ is cyano, nitro, C₁-C₁₀-alkoxy, C₁-C₁₀-haloalkoxy, C₁-C₁₀-alkylthio, or C₁-C₁₀-haloalkylthio.

- 35 Most preferred are compounds of formula I wherein Q³ is halogen, C₁-C₄-haloalkyl or C₁-C₄-haloalkoxy.

- Preferred are compounds of formula I wherein Q⁴ is halogen, cyano, nitro, C₁-C₁₀-alkyl, C₁-C₁₀-haloalkyl, C₁-C₁₀-alkoxy, C₁-C₁₀-haloalkoxy, C₁-C₁₀-alkylthio, C₁-C₁₀-haloalkylthio, C₁-C₁₀-alkylsulfinyl, C₁-C₁₀-haloalkylsulfinyl, C₁-C₁₀-alkylsulfonyl, C₁-C₁₀-haloalkylsulfonyl, or C₁-C₁₀-alkoxycarbonyl, preferably halogen or C₁-C₄-haloalkyl.

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Preferred are compounds of formula I wherein X and Y are oxygen.

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Preferred are compounds of formula I wherein W is N or CQ⁴, preferably N.

Preferred are compounds of formula I wherein m is 2.

5 Preferred are compounds of formula I wherein n is 0.

Preferred are compounds of formula I wherein V and V' each independently are N or CH. Preferably, both V and V' are CH.

10 Especially preferred are N-thio-anthranilamid compounds of formula I wherein
 W is N;
 R¹ is hydrogen;
 Q¹ is hydrogen, halogen, cyano, C₁-C₄-alkyl or C₁-C₄-haloalkyl;
 Q² is halogen, cyano, C₁-C₄-alkyl or C₁-C₄-haloalkyl;
 15 Q³ is halogen, C₁-C₄-haloalkyl or C₁-C₄-haloalkoxy;
 Q⁴ is halogen or C₁-C₄-haloalkyl and is in the ortho-position; and
 p is 1.

Also, especially preferred are N-thio-anthranilamid compounds of formula I wherein
 20 A is A²;
 R⁴ is C₁-C₆-alkylamino, C₂-C₆-alkenylamino, C₂-C₆-alkynylamino, di(C₁-C₆-alkyl)amino, di(C₂-C₆-alkenyl)amino, di(C₂-C₆-alkynyl)amino, (phenyl)(C₁-C₆-alkyl)amino, (phenyl)(C₂-C₆-alkenyl)amino, (phenyl)(C₂-C₆-alkynyl)amino, piperidine, piperazin or morpholine; and
 25 R⁵ is hydrogen or C₁-C₄-alkyl.

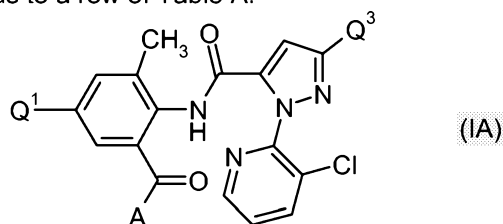
Also, especially preferred are N-thio-anthranilamid compounds of formula I wherein
 A is A¹; and
 R² and R³ each independently are phenyl, C₁-C₆-alkyl, C₂-C₆-alkenyl, or C₂-C₆-alkynyl,
 30 which are unsubstituted or substituted with any combination of 1 to 6 groups selected from halogen and cyano.

Most preferred are compounds of formula I wherein R² and R³ each independently are C₁-C₄-alkyl, phenylmethyl, allylmethyl, propargylmethyl, or together with the sulfur
 35 atom to which they are attached form a 3- to 6-membered saturated ring which contains 1 to 3 heteroatoms selected from sulfur and oxygen.

With respect to their use, particular preference is given to the compounds IA compiled in the tables below. Moreover, the groups mentioned for a substituent in the tables are
 40 on their own, independently of the combination in which they are mentioned, a particularly preferred embodiment of the substituent in question.

Table 1

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CF₃, and A in each case corresponds to a row of Table A.



5 Table 2

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes bromine, and A in each case corresponds to a row of Table A.

Table 3

10 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes chlorine, and A in each case corresponds to a row of Table A.

Table 4

15 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₃, and A in each case corresponds to a row of Table A.

Table 5

20 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OCH₃, and A in each case corresponds to a row of Table A.

Table 6

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OCHCH₂, and A in each case corresponds to a row of Table A.

25 Table 7

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes ethoxy, and A in each case corresponds to a row of Table A.

Table 8

30 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OCH₂CHFOCH₃, and A in each case corresponds to a row of Table A.

Table 9

35 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OCH₂CH=CH₂, and A in each case corresponds to a row of Table A.

Table 10

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OCH₂CCH, and A in each case corresponds to a row of Table A.

Table 11

- 5 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₂OCH₃, and A in each case corresponds to a row of Table A.

Table 12

- 10 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₂OCH₂CH₃, and A in each case corresponds to a row of Table A.

Table 13

- 15 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₂SCH₃, and A in each case corresponds to a row of Table A.

Table 14

- 20 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₂SCH₂CH₃, and A in each case corresponds to a row of Table A.

Table 15

- 25 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₂S(=O)CH₃, and A in each case corresponds to a row of Table A.

Table 16

- 30 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₂S(=O)CH₂CH₃, and A in each case corresponds to a row of Table A.

Table 17

- 35 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₂S(=O)₂CH₃, and A in each case corresponds to a row of Table A.

Table 18

- 40 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₂S(=O)₂CH₂CH₃, and A in each case corresponds to a row of Table A.

Table 19

- 45 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes -OS(=O)₂CH₃, and A in each case corresponds to a row of Table A.

Table 20

- 50 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes -OS(=O)₂CH₂CH₃, and A in each case corresponds to a row of Table A.

Table 21

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes -OS(=O)₂CH₂CF₃, and A in each case corresponds to a row of Table A.

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Table 22

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes -OS(=O)₂CClF₂, and A in each case corresponds to a row of Table A.

10 Table 23

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OC(=O)CF₃, and A in each case corresponds to a row of Table A.

Table 24

15 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes NHCH₂CF₃, and A in each case corresponds to a row of Table A.

Table 25

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OCH₂-cyclopropyl, and A in each case corresponds to a row of Table A.

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Table 26

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OCH₂C(Cl)=CH₂, and A in each case corresponds to a row of Table A.

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Table 27

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OCH₂CH=CF₂, and A in each case corresponds to a row of Table A.

30 Table 28

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes NHS(=O)₂CF₃, and A in each case corresponds to a row of Table A.

Table 29

35 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes NHC(=O)CF₃, and A in each case corresponds to a row of Table A.

Table 30

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OCH₂CN, and A in each case corresponds to a row of Table A.

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Table 31

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Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OCH₂NO₂, and A in each case corresponds to a row of Table A.

Table 32

- 5 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes cyclopropyloxy, and A in each case corresponds to a row of Table A.

Table 33

- 10 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₂OCHF₂, and A in each case corresponds to a row of Table A.

Table 34

- 15 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₂S(=O)₂CHF₂, and A in each case corresponds to a row of Table A.

Table 35

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH=NOCH₃, and A in each case corresponds to a row of Table A.

- 20 Table 36

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH=NOCH₂CH₃, and A in each case corresponds to a row of Table A.

Table 37

- 25 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH=NOCH(CH₃)₂ and A in each case corresponds to a row of Table A.

Table 38

- 30 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH=NOC(CH₃)₃, and A in each case corresponds to a row of Table A.

Table 39

- 35 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes C(CH₃)=NOCH₃, and A in each case corresponds to a row of Table A.

Table 40

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes C(CH₃)=NOCH₂CH₃, and A in each case corresponds to a row of Table A.

- 40 Table 41

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes C(CH₃)=NOCH(CH₃)₂, and A in each case corresponds to a row of Table A.

Table 42

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes C(CH₃)=NOC(CH₃)₃, and A in each case corresponds to a row of Table A.

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Table 43

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CF₃, and A in each case corresponds to a row of Table A.

10 Table 44

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes bromine, and A in each case corresponds to a row of Table A.

Table 45

15 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes chlorine, and A in each case corresponds to a row of Table A.

Table 46

20 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH₃, and A in each case corresponds to a row of Table A.

Table 47

25 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OCH₃, and A in each case corresponds to a row of Table A.

Table 48

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OCHCH₂, and A in each case corresponds to a row of Table A.

30 Table 49

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes ethoxy, and A in each case corresponds to a row of Table A.

Table 50

35 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OCH₂CHFOCH₃, and A in each case corresponds to a row of Table A.

Table 51

40 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OCH₂CH=CH₂, and A in each case corresponds to a row of Table A.

Table 52

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Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OCH₂CCH₃, and A in each case corresponds to a row of Table A.

Table 53

- 5 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH₂OCH₃, and A in each case corresponds to a row of Table A.

Table 54

- 10 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH₂OCH₂CH₃, and A in each case corresponds to a row of Table A.

Table 55

- 15 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH₂SCH₃, and A in each case corresponds to a row of Table A.

Table 56

- Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH₂SCH₂CH₃, and A in each case corresponds to a row of Table A.

20 Table 57

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH₂S(=O)CH₃, and A in each case corresponds to a row of Table A.

Table 58

- 25 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH₂S(=O)CH₂CH₃, and A in each case corresponds to a row of Table A.

Table 59

- 30 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH₂S(=O)₂CH₃, and A in each case corresponds to a row of Table A.

Table 60

- 35 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH₂S(=O)₂CH₂CH₃, and A in each case corresponds to a row of Table A.

Table 61

- Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes -OS(=O)₂CH₃, and A in each case corresponds to a row of Table A.

40 Table 62

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes -OS(=O)₂CH₂CH₃, and A in each case corresponds to a row of Table A.

Table 63

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes -OS(=O)₂CH₂CF₃, and A in each case corresponds to a row of Table A.

5

Table 64

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes -OS(=O)₂CClF₂, and A in each case corresponds to a row of Table A.

10 Table 65

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OC(=O)CF₃, and A in each case corresponds to a row of Table A.

Table 66

15 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes NHCH₂CF₃, and A in each case corresponds to a row of Table A.

Table 67

20 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OCH₂-cyclopropyl, and A in each case corresponds to a row of Table A.

Table 68

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OCH₂C(Cl)=CH₂, and A in each case corresponds to a row of Table A.

25

Table 69

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OCH₂CH=CF₂, and A in each case corresponds to a row of Table A.

30 Table 70

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes NHS(=O)₂CF₃, and A in each case corresponds to a row of Table A.

Table 71

35 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes NHC(=O)CF₃, and A in each case corresponds to a row of Table A.

Table 72

40 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OCH₂CN, and A in each case corresponds to a row of Table A.

Table 73

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OCH₂NO₂, and A in each case corresponds to a row of Table A.

Table 74

- 5 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes cyclopropyloxy, and A in each case corresponds to a row of Table A.

Table 75

- 10 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH₂OCHF₂, and A in each case corresponds to a row of Table A.

Table 76

- 15 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH₂S(=O)₂CHF₂, and A in each case corresponds to a row of Table A.

Table 77

- Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH=NOCH₃, and A in each case corresponds to a row of Table A.

20 Table 78

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH=NOCH₂CH₃, and A in each case corresponds to a row of Table A.

Table 79

- 25 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH=NOCH(CH₃)₂ and A in each case corresponds to a row of Table A.

Table 80

- 30 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH=NOC(CH₃)₃, and A in each case corresponds to a row of Table A.

Table 81

- 35 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes C(CH₃)=NOCH₃, and A in each case corresponds to a row of Table A.

Table 82

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes C(CH₃)=NOCH₂CH₃, and A in each case corresponds to a row of Table A.

40 Table 83

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes C(CH₃)=NOCH(CH₃)₂, and A in each case corresponds to a row of Table A.

Table 84

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes C(CH₃)=NOC(CH₃)₃, and A in each case corresponds to a row of Table A.

5

Table 85

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CF₃, and A in each case corresponds to a row of Table A.

10 Table 86

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes bromine, and A in each case corresponds to a row of Table A.

Table 87

15 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes chlorine, and A in each case corresponds to a row of Table A.

Table 88

20 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₃, and A in each case corresponds to a row of Table A.

Table 89

25 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OCH₃, and A in each case corresponds to a row of Table A.

Table 90

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OCHCH₂, and A in each case corresponds to a row of Table A.

30 Table 91

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes ethoxy, and A in each case corresponds to a row of Table A.

Table 92

35 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OCH₂CHFOCH₃, and A in each case corresponds to a row of Table A.

Table 93

40 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OCH₂CH=CH₂, and A in each case corresponds to a row of Table A.

Table 94

30

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OCH₂CCH₃, and A in each case corresponds to a row of Table A.

Table 95

- 5 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₂OCH₃, and A in each case corresponds to a row of Table A.

Table 96

- 10 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₂OCH₂CH₃, and A in each case corresponds to a row of Table A.

Table 97

- 15 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₂SCH₃, and A in each case corresponds to a row of Table A.

Table 98

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₂SCH₂CH₃, and A in each case corresponds to a row of Table A.

20 Table 99

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₂S(=O)CH₃, and A in each case corresponds to a row of Table A.

Table 100

- 25 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₂S(=O)CH₂CH₃, and A in each case corresponds to a row of Table A.

Table 101

- 30 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₂S(=O)₂CH₃, and A in each case corresponds to a row of Table A.

Table 102

- 35 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₂S(=O)₂CH₂CH₃, and A in each case corresponds to a row of Table A.

Table 103

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes -OS(=O)₂CH₃, and A in each case corresponds to a row of Table A.

40 Table 104

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes -OS(=O)₂CH₂CH₃, and A in each case corresponds to a row of Table A.

Table 105

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes -OS(=O)₂CH₂CF₃, and A in each case corresponds to a row of Table A.

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Table 106

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes -OS(=O)₂CClF₂, and A in each case corresponds to a row of Table A.

10 Table 107

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OC(=O)CF₃, and A in each case corresponds to a row of Table A.

Table 108

15 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes NHCH₂CF₃, and A in each case corresponds to a row of Table A.

Table 109

20 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OCH₂-cyclopropyl, and A in each case corresponds to a row of Table A.

Table 110

25 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OCH₂C(Cl)=CH₂, and A in each case corresponds to a row of Table A.

Table 111

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OCH₂CH=CF₂, and A in each case corresponds to a row of Table A.

30 Table 112

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes NHS(=O)₂CF₃, and A in each case corresponds to a row of Table A.

Table 113

35 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes NHC(=O)CF₃, and A in each case corresponds to a row of Table A.

Table 114

40 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OCH₂CN, and A in each case corresponds to a row of Table A.

Table 115

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OCH₂NO₂, and A in each case corresponds to a row of Table A.

Table 116

- 5 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes cyclopropyloxy, and A in each case corresponds to a row of Table A.

Table 117

- 10 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₂OCHF₂, and A in each case corresponds to a row of Table A.

Table 118

- 15 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₂S(=O)₂CHF₂, and A in each case corresponds to a row of Table A.

Table 119

- Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH=NOCH₃, and A in each case corresponds to a row of Table A.

20 Table 120

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH=NOCH₂CH₃, and A in each case corresponds to a row of Table A.

Table 121

- 25 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH=NOCH(CH₃)₂ and A in each case corresponds to a row of Table A.

Table 122

- 30 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH=NOC(CH₃)₃, and A in each case corresponds to a row of Table A.

Table 123

- 35 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes C(CH₃)=NOCH₃, and A in each case corresponds to a row of Table A.

Table 124

- Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes C(CH₃)=NOCH₂CH₃, and A in each case corresponds to a row of Table A.

40 Table 125

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes C(CH₃)=NOCH(CH₃)₂, and A in each case corresponds to a row of Table A.

Table 126

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes C(CH₃)=NOC(CH₃)₃, and A in each case corresponds to a row of Table A.

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Table 127

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CF₃, and A in each case corresponds to a row of Table A.

10 Table 128

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes bromine, and A in each case corresponds to a row of Table A.

Table 129

15 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes chlorine, and A in each case corresponds to a row of Table A.

Table 130

20 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH₃, and A in each case corresponds to a row of Table A.

Table 131

25 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OCH₃, and A in each case corresponds to a row of Table A.

Table 132

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OCHCH₂, and A in each case corresponds to a row of Table A.

30 Table 133

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes ethoxy, and A in each case corresponds to a row of Table A.

Table 134

35 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OCH₂CHFOCH₃, and A in each case corresponds to a row of Table A.

Table 135

40 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OCH₂CH=CH₂, and A in each case corresponds to a row of Table A.

Table 136

34

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OCH₂CCH, and A in each case corresponds to a row of Table A.

Table 137

- 5 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH₂OCH₃, and A in each case corresponds to a row of Table A.

Table 138

- 10 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH₂OCH₂CH₃, and A in each case corresponds to a row of Table A.

Table 139

- 15 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH₂SCH₃, and A in each case corresponds to a row of Table A.

Table 140

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH₂SCH₂CH₃, and A in each case corresponds to a row of Table A.

20 Table 141

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH₂S(=O)CH₃, and A in each case corresponds to a row of Table A.

Table 142

- 25 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH₂S(=O)CH₂CH₃, and A in each case corresponds to a row of Table A.

Table 143

- 30 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH₂S(=O)₂CH₃, and A in each case corresponds to a row of Table A.

Table 144

- 35 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH₂S(=O)₂CH₂CH₃, and A in each case corresponds to a row of Table A.

Table 145

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes -OS(=O)₂CH₃, and A in each case corresponds to a row of Table A.

40 Table 146

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes -OS(=O)₂CH₂CH₃, and A in each case corresponds to a row of Table A.

Table 147

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes -OS(=O)₂CH₂CF₃, and A in each case corresponds to a row of Table A.

5

Table 148

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes -OS(=O)₂CClF₂, and A in each case corresponds to a row of Table A.

10 Table 149

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OC(=O)CF₃, and A in each case corresponds to a row of Table A.

Table 150

15 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes NHCH₂CF₃, and A in each case corresponds to a row of Table A.

Table 151

20 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OCH₂-cyclopropyl, and A in each case corresponds to a row of Table A.

Table 152

25 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OCH₂C(Cl)=CH₂, and A in each case corresponds to a row of Table A.

Table 153

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OCH₂CH=CF₂, and A in each case corresponds to a row of Table A.

30 Table 154

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes NHS(=O)₂CF₃, and A in each case corresponds to a row of Table A.

Table 155

35 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes NHC(=O)CF₃, and A in each case corresponds to a row of Table A.

Table 156

40 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OCH₂CN, and A in each case corresponds to a row of Table A.

Table 157

36

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OCH₂NO₂, and A in each case corresponds to a row of Table A.

Table 158

- 5 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes cyclopropyloxy, and A in each case corresponds to a row of Table A.

Table 159

- 10 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH₂OCHF₂, and A in each case corresponds to a row of Table A.

Table 160

- 15 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH₂S(=O)₂CHF₂, and A in each case corresponds to a row of Table A.

Table 161

- 20 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH=NOCH₃, and A in each case corresponds to a row of Table A.

Table 162

- 25 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH=NOCH₂CH₃, and A in each case corresponds to a row of Table A.

Table 163

- 30 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH=NOCH(CH₃)₂ and A in each case corresponds to a row of Table A.

Table 164

- 35 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH=NOC(CH₃)₃, and A in each case corresponds to a row of Table A.

Table 165

- 40 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes C(CH₃)=NOCH₃, and A in each case corresponds to a row of Table A.

Table 166

- 45 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes C(CH₃)=NOCH₂CH₃, and A in each case corresponds to a row of Table A.

Table 167

- 50 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes C(CH₃)=NOCH(CH₃)₂, and A in each case corresponds to a row of Table A.

Table 168

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes C(CH₃)=NOC(CH₃)₃, and A in each case corresponds to a row of Table A.

5

Table 169

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CF₃, and A in each case corresponds to a row of Table A.

10 Table 170

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes bromine, and A in each case corresponds to a row of Table A.

Table 171

15 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes chlorine, and A in each case corresponds to a row of Table A.

Table 172

20 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₃, and A in each case corresponds to a row of Table A.

Table 173

25 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OCH₃, and A in each case corresponds to a row of Table A.

Table 174

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OCHCH₂, and A in each case corresponds to a row of Table A.

30 Table 175

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes ethoxy, and A in each case corresponds to a row of Table A.

Table 176

35 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OCH₂CHFOCH₃, and A in each case corresponds to a row of Table A.

Table 177

40 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OCH₂CH=CH₂, and A in each case corresponds to a row of Table A.

Table 178

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OCH₂CCH, and A in each case corresponds to a row of Table A.

Table 179

- 5 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₂OCH₃, and A in each case corresponds to a row of Table A.

Table 180

- 10 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₂OCH₂CH₃, and A in each case corresponds to a row of Table A.

Table 181

- 15 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₂SCH₃, and A in each case corresponds to a row of Table A.

Table 182

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₂SCH₂CH₃, and A in each case corresponds to a row of Table A.

20 Table 183

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₂S(=O)CH₃, and A in each case corresponds to a row of Table A.

Table 184

- 25 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₂S(=O)CH₂CH₃, and A in each case corresponds to a row of Table A.

Table 185

- 30 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₂S(=O)₂CH₃, and A in each case corresponds to a row of Table A.

Table 186

- 35 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₂S(=O)₂CH₂CH₃, and A in each case corresponds to a row of Table A.

Table 187

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes -OS(=O)₂CH₃, and A in each case corresponds to a row of Table A.

40 Table 188

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes -OS(=O)₂CH₂CH₃, and A in each case corresponds to a row of Table A.

Table 189

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes -OS(=O)₂CH₂CF₃, and A in each case corresponds to a row of Table A.

5

Table 190

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes -OS(=O)₂CCIF₂, and A in each case corresponds to a row of Table A.

10 Table 191

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OC(=O)CF₃, and A in each case corresponds to a row of Table A.

Table 192

15 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes NHCH₂CF₃, and A in each case corresponds to a row of Table A.

Table 193

20 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OCH₂-cyclopropyl, and A in each case corresponds to a row of Table A.

Table 194

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OCH₂C(Cl)=CH₂, and A in each case corresponds to a row of Table A.

25

Table 195

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OCH₂CH=CF₂, and A in each case corresponds to a row of Table A.

30 Table 196

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes NHS(=O)₂CF₃, and A in each case corresponds to a row of Table A.

Table 197

35 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes NHC(=O)CF₃, and A in each case corresponds to a row of Table A.

Table 198

40 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OCH₂CN, and A in each case corresponds to a row of Table A.

Table 199

40

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OCH₂NO₂, and A in each case corresponds to a row of Table A.

Table 200

- 5 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes cyclopropyloxy, and A in each case corresponds to a row of Table A.

Table 201

- 10 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₂OCHF₂, and A in each case corresponds to a row of Table A.

Table 202

- 15 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₂S(=O)₂CHF₂, and A in each case corresponds to a row of Table A.

Table 203

- Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH=NOCH₃, and A in each case corresponds to a row of Table A.

20 Table 204

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH=NOCH₂CH₃, and A in each case corresponds to a row of Table A.

Table 205

- 25 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH=NOCH(CH₃)₂ and A in each case corresponds to a row of Table A.

Table 206

- 30 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH=NOC(CH₃)₃, and A in each case corresponds to a row of Table A.

Table 207

- 35 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes C(CH₃)=NOCH₃, and A in each case corresponds to a row of Table A.

Table 208

- Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes C(CH₃)=NOCH₂CH₃, and A in each case corresponds to a row of Table A.

40 Table 209

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes C(CH₃)=NOCH(CH₃)₂, and A in each case corresponds to a row of Table A.

Table 210

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes C(CH₃)=NOC(CH₃)₃, and A in each case corresponds to a row of Table A.

5

Table 211

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CF₃, and A in each case corresponds to a row of Table A.

10 Table 212

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes bromine, and A in each case corresponds to a row of Table A.

Table 213

15 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes chlorine, and A in each case corresponds to a row of Table A.

Table 214

20 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₃, and A in each case corresponds to a row of Table A.

Table 215

25 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OCH₃, and A in each case corresponds to a row of Table A.

Table 216

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OCHCH₂, and A in each case corresponds to a row of Table A.

30 Table 217

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes ethoxy, and A in each case corresponds to a row of Table A.

Table 218

35 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OCH₂CHFOCH₃, and A in each case corresponds to a row of Table A.

Table 219

40 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OCH₂CH=CH₂, and A in each case corresponds to a row of Table A.

Table 220

42

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OCH₂CCH, and A in each case corresponds to a row of Table A.

Table 221

- 5 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₂OCH₃, and A in each case corresponds to a row of Table A.

Table 222

- 10 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₂OCH₂CH₃, and A in each case corresponds to a row of Table A.

Table 223

- 15 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₂SCH₃, and A in each case corresponds to a row of Table A.

Table 224

- 20 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₂SCH₂CH₃, and A in each case corresponds to a row of Table A.

Table 225

- 25 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₂S(=O)CH₃, and A in each case corresponds to a row of Table A.

Table 226

- 30 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₂S(=O)CH₂CH₃, and A in each case corresponds to a row of Table A.

Table 227

- 35 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₂S(=O)₂CH₃, and A in each case corresponds to a row of Table A.

Table 228

- 40 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₂S(=O)₂CH₂CH₃, and A in each case corresponds to a row of Table A.

Table 229

- 45 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes -OS(=O)₂CH₃, and A in each case corresponds to a row of Table A.

Table 230

- 50 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes -OS(=O)₂CH₂CH₃, and A in each case corresponds to a row of Table A.

Table 231

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes -OS(=O)₂CH₂CF₃, and A in each case corresponds to a row of Table A.

5

Table 232

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes -OS(=O)₂CCIF₂, and A in each case corresponds to a row of Table A.

10 Table 233

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OC(=O)CF₃, and A in each case corresponds to a row of Table A.

Table 234

15 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes NHCH₂CF₃, and A in each case corresponds to a row of Table A.

Table 235

20 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OCH₂-cyclopropyl, and A in each case corresponds to a row of Table A.

Table 236

25 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OCH₂C(Cl)=CH₂, and A in each case corresponds to a row of Table A.

Table 237

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OCH₂CH=CF₂, and A in each case corresponds to a row of Table A.

30 Table 238

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes NHS(=O)₂CF₃, and A in each case corresponds to a row of Table A.

Table 239

35 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes NHC(=O)CF₃, and A in each case corresponds to a row of Table A.

Table 240

40 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OCH₂CN, and A in each case corresponds to a row of Table A.

Table 241

44

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OCH₂NO₂, and A in each case corresponds to a row of Table A.

Table 242

- 5 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes cyclopropyloxy, and A in each case corresponds to a row of Table A.

Table 243

- 10 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₂OCHF₂, and A in each case corresponds to a row of Table A.

Table 244

- 15 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₂S(=O)₂CHF₂, and A in each case corresponds to a row of Table A.

Table 245

- Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH=NOCH₃, and A in each case corresponds to a row of Table A.

20 Table 246

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH=NOCH₂CH₃, and A in each case corresponds to a row of Table A.

Table 247

- 25 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH=NOCH(CH₃)₂ and A in each case corresponds to a row of Table A.

Table 248

- 30 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH=NOC(CH₃)₃, and A in each case corresponds to a row of Table A.

Table 249

- 35 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes C(CH₃)=NOCH₃, and A in each case corresponds to a row of Table A.

Table 250

- Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes C(CH₃)=NOCH₂CH₃, and A in each case corresponds to a row of Table A.

40 Table 251

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes C(CH₃)=NOCH(CH₃)₂, and A in each case corresponds to a row of Table A.

Table 252

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes C(CH₃)=NOC(CH₃)₃, and A in each case corresponds to a row of Table A.

5

Table 253

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CF₃, and A in each case corresponds to a row of Table A.

10 Table 254

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes bromine, and A in each case corresponds to a row of Table A.

Table 255

15 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes chlorine, and A in each case corresponds to a row of Table A.

Table 256

20 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₃, and A in each case corresponds to a row of Table A.

Table 257

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OCH₃, and A in each case corresponds to a row of Table A.

25

Table 258

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OCHCH₂, and A in each case corresponds to a row of Table A.

30 Table 259

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes ethoxy, and A in each case corresponds to a row of Table A.

Table 260

35 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OCH₂CHFOCH₃, and A in each case corresponds to a row of Table A.

Table 261

40 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OCH₂CH=CH₂, and A in each case corresponds to a row of Table A.

Table 262

46

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OCH₂CCH₃, and A in each case corresponds to a row of Table A.

Table 263

- 5 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₂OCH₃, and A in each case corresponds to a row of Table A.

Table 264

- 10 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₂OCH₂CH₃, and A in each case corresponds to a row of Table A.

Table 265

- 15 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₂SCH₃, and A in each case corresponds to a row of Table A.

Table 266

- Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₂SCH₂CH₃, and A in each case corresponds to a row of Table A.

20 Table 267

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₂S(=O)CH₃, and A in each case corresponds to a row of Table A.

Table 268

- 25 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₂S(=O)CH₂CH₃, and A in each case corresponds to a row of Table A.

Table 269

- 30 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₂S(=O)₂CH₃, and A in each case corresponds to a row of Table A.

Table 270

- 35 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₂S(=O)₂CH₂CH₃, and A in each case corresponds to a row of Table A.

Table 271

- Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes -OS(=O)₂CH₃, and A in each case corresponds to a row of Table A.

40 Table 272

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes -OS(=O)₂CH₂CH₃, and A in each case corresponds to a row of Table A.

Table 273

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes -OS(=O)₂CH₂CF₃, and A in each case corresponds to a row of Table A.

5

Table 274

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes -OS(=O)₂CClF₂, and A in each case corresponds to a row of Table A.

10 Table 275

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OC(=O)CF₃, and A in each case corresponds to a row of Table A.

Table 276

15 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes NHCH₂CF₃, and A in each case corresponds to a row of Table A.

Table 277

20 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OCH₂-cyclopropyl, and A in each case corresponds to a row of Table A.

Table 278

25 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OCH₂C(Cl)=CH₂, and A in each case corresponds to a row of Table A.

Table 279

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OCH₂CH=CF₂, and A in each case corresponds to a row of Table A.

30 Table 280

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes NHS(=O)₂CF₃, and A in each case corresponds to a row of Table A.

Table 281

35 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes NHC(=O)CF₃, and A in each case corresponds to a row of Table A.

Table 282

40 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OCH₂CN, and A in each case corresponds to a row of Table A.

Table 283

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OCH₂NO₂, and A in each case corresponds to a row of Table A.

Table 284

- 5 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes cyclopropyloxy, and A in each case corresponds to a row of Table A.

Table 285

- 10 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₂OCHF₂, and A in each case corresponds to a row of Table A.

Table 286

- 15 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₂S(=O)₂CHF₂, and A in each case corresponds to a row of Table A.

Table 287

- 20 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH=NOCH₃, and A in each case corresponds to a row of Table A.

Table 288

- 20 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH=NOCH₂CH₃, and A in each case corresponds to a row of Table A.

Table 289

- 25 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH=NOCH(CH₃)₂ and A in each case corresponds to a row of Table A.

Table 290

- 30 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH=NOC(CH₃)₃, and A in each case corresponds to a row of Table A.

Table 291

- 35 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes C(CH₃)=NOCH₃, and A in each case corresponds to a row of Table A.

Table 292

- 40 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes C(CH₃)=NOCH₂CH₃, and A in each case corresponds to a row of Table A.

Table 293

- 40 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes C(CH₃)=NOCH(CH₃)₂, and A in each case corresponds to a row of Table A.

Table 294

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes C(CH₃)=NOC(CH₃)₃, and A in each case corresponds to a row of Table A.

5

Table A

No.	A	R ^a	R ^b	R ^c
IA-1	$\begin{array}{c} \text{O} \\ \parallel \\ -\text{N}-\text{S}-\text{N}- \\ \quad \quad \quad \\ \text{R}^a \quad \quad \quad \text{R}^b \\ \text{O} \quad \quad \quad \text{R}^c \\ \text{A}^{2.1} \end{array}$	H	CH ₃	CH ₃
IA-2	A ^{2.1}	H	CH ₂ CH ₃	CH ₃
IA-3	A ^{2.1}	H	CH ₂ CH ₂ CH ₃	CH ₃
IA-4	A ^{2.1}	H	CH(CH ₃) ₂	CH ₃
IA-5	A ^{2.1}	H	CH ₂ CH ₂ CH ₂ CH ₃	CH ₃
IA-6	A ^{2.1}	H	CH ₂ CH(CH ₃) ₂	CH ₃
IA-7	A ^{2.1}	H	CH ₂ CHCH ₂	CH ₃
IA-8	A ^{2.1}	H	CH ₂ CCH	CH ₃
IA-9	A ^{2.1}	H	C ₆ H ₅	CH ₃
IA-10	A ^{2.1}	CH ₃	CH ₃	CH ₃
IA-11	A ^{2.1}	CH ₃	CH ₂ CH ₃	CH ₃
IA-12	A ^{2.1}	CH ₃	CH ₂ CH ₂ CH ₃	CH ₃
IA-13	A ^{2.1}	CH ₃	CH(CH ₃) ₂	CH ₃
IA-14	A ^{2.1}	CH ₃	CH ₂ CH ₂ CH ₂ CH ₃	CH ₃
IA-15	A ^{2.1}	CH ₃	CH ₂ CH(CH ₃) ₂	CH ₃
IA-16	A ^{2.1}	CH ₃	CH ₂ CHCH ₂	CH ₃
IA-17	A ^{2.1}	CH ₃	CH ₂ CCH	CH ₃
IA-18	A ^{2.1}	CH ₃	C ₆ H ₅	CH ₃
IA-19	A ^{2.1}	CH(CH ₃) ₂	CH ₃	CH ₃
IA-20	A ^{2.1}	CH(CH ₃) ₂	CH ₂ CH ₃	CH ₃
IA-21	A ^{2.1}	CH(CH ₃) ₂	CH ₂ CH ₂ CH ₃	CH ₃
IA-22	A ^{2.1}	CH(CH ₃) ₂	CH(CH ₃) ₂	CH ₃
IA-23	A ^{2.1}	CH(CH ₃) ₂	CH ₂ CH ₂ CH ₂ CH ₃	CH ₃
IA-24	A ^{2.1}	CH(CH ₃) ₂	CH ₂ CH(CH ₃) ₂	CH ₃

No.	A	R ^a	R ^b	R ^c
IA-25	A ² .1	CH(CH ₃) ₂	CH ₂ CHCH ₂	CH ₃
IA-26	A ² .1	CH(CH ₃) ₂	CH ₂ CCH	CH ₃
IA-27	A ² .1	CH(CH ₃) ₂	C ₆ H ₅	CH ₃
IA-28	A ² .1	H	CH ₂ CH ₃	CH ₂ CH ₃
IA-29	A ² .1	H	CH ₂ CH ₂ CH ₃	CH ₂ CH ₃
IA-30	A ² .1	H	CH(CH ₃) ₂	CH ₂ CH ₃
IA-31	A ² .1	H	CH ₂ CH ₂ CH ₂ CH ₃	CH ₂ CH ₃
IA-32	A ² .1	H	CH ₂ CH(CH ₃) ₂	CH ₂ CH ₃
IA-33	A ² .1	H	CH ₂ CHCH ₂	CH ₂ CH ₃
IA-34	A ² .1	H	CH ₂ CCH	CH ₂ CH ₃
IA-35	A ² .1	H	C ₆ H ₅	CH ₂ CH ₃
IA-36	A ² .1	CH ₃	CH ₂ CH ₃	CH ₂ CH ₃
IA-37	A ² .1	CH ₃	CH ₂ CH ₂ CH ₃	CH ₂ CH ₃
IA-38	A ² .1	CH ₃	CH(CH ₃) ₂	CH ₂ CH ₃
IA-39	A ² .1	CH ₃	CH ₂ CH ₂ CH ₂ CH ₃	CH ₂ CH ₃
IA-40	A ² .1	CH ₃	CH ₂ CH(CH ₃) ₂	CH ₂ CH ₃
IA-41	A ² .1	CH ₃	CH ₂ CHCH ₂	CH ₂ CH ₃
IA-42	A ² .1	CH ₃	CH ₂ CCH	CH ₂ CH ₃
IA-43	A ² .1	CH ₃	C ₆ H ₅	CH ₂ CH ₃
IA-44	A ² .1	CH(CH ₃) ₂	CH ₂ CH ₃	CH ₂ CH ₃
IA-45	A ² .1	CH(CH ₃) ₂	CH ₂ CH ₂ CH ₃	CH ₂ CH ₃
IA-46	A ² .1	CH(CH ₃) ₂	CH(CH ₃) ₂	CH ₂ CH ₃
IA-47	A ² .1	CH(CH ₃) ₂	CH ₂ CH ₂ CH ₂ CH ₃	CH ₂ CH ₃
IA-48	A ² .1	CH(CH ₃) ₂	CH ₂ CH(CH ₃) ₂	CH ₂ CH ₃
IA-49	A ² .1	CH(CH ₃) ₂	CH ₂ CHCH ₂	CH ₂ CH ₃
IA-50	A ² .1	CH(CH ₃) ₂	CH ₂ CCH	CH ₂ CH ₃
IA-51	A ² .1	CH(CH ₃) ₂	C ₆ H ₅	CH ₂ CH ₃
IA-52	A ² .1	H	CH ₂ CH ₂ CH ₃	CH ₂ CH ₂ CH ₃
IA-53	A ² .1	H	CH(CH ₃) ₂	CH ₂ CH ₂ CH ₃
IA-54	A ² .1	H	CH ₂ CH ₂ CH ₂ CH ₃	CH ₂ CH ₂ CH ₃
IA-55	A ² .1	H	CH ₂ CH(CH ₃) ₂	CH ₂ CH ₂ CH ₃
IA-56	A ² .1	H	CH ₂ CHCH ₂	CH ₂ CH ₂ CH ₃

No.	A	R ^a	R ^b	R ^c
IA-57	A ² .1	H	CH ₂ CCH	CH ₂ CH ₂ CH ₃
IA-58	A ² .1	H	C ₆ H ₅	CH ₂ CH ₂ CH ₃
IA-59	A ² .1	CH ₃	CH ₂ CH ₂ CH ₃	CH ₂ CH ₂ CH ₃
IA-60	A ² .1	CH ₃	CH(CH ₃) ₂	CH ₂ CH ₂ CH ₃
IA-61	A ² .1	CH ₃	CH ₂ CH ₂ CH ₂ CH ₃	CH ₂ CH ₂ CH ₃
IA-62	A ² .1	CH ₃	CH ₂ CH(CH ₃) ₂	CH ₂ CH ₂ CH ₃
IA-63	A ² .1	CH ₃	CH ₂ CHCH ₂	CH ₂ CH ₂ CH ₃
IA-64	A ² .1	CH ₃	CH ₂ CCH	CH ₂ CH ₂ CH ₃
IA-65	A ² .1	CH ₃	C ₆ H ₅	CH ₂ CH ₂ CH ₃
IA-66	A ² .1	CH(CH ₃) ₂	CH ₂ CH ₂ CH ₃	CH ₂ CH ₂ CH ₃
IA-67	A ² .1	CH(CH ₃) ₂	CH(CH ₃) ₂	CH ₂ CH ₂ CH ₃
IA-68	A ² .1	CH(CH ₃) ₂	CH ₂ CH ₂ CH ₂ CH ₃	CH ₂ CH ₂ CH ₃
IA-69	A ² .1	CH(CH ₃) ₂	CH ₂ CH(CH ₃) ₂	CH ₂ CH ₂ CH ₃
IA-70	A ² .1	CH(CH ₃) ₂	CH ₂ CHCH ₂	CH ₂ CH ₂ CH ₃
IA-71	A ² .1	CH(CH ₃) ₂	CH ₂ CCH	CH ₂ CH ₂ CH ₃
IA-72	A ² .1	CH(CH ₃) ₂	C ₆ H ₅	CH ₂ CH ₂ CH ₃
IA-73	A ² .1	H	CH(CH ₃) ₂	CH(CH ₃) ₂
IA-74	A ² .1	H	CH ₂ CH ₂ CH ₂ CH ₃	CH(CH ₃) ₂
IA-75	A ² .1	H	CH ₂ CH(CH ₃) ₂	CH(CH ₃) ₂
IA-76	A ² .1	H	CH ₂ CHCH ₂	CH(CH ₃) ₂
IA-77	A ² .1	H	CH ₂ CCH	CH(CH ₃) ₂
IA-78	A ² .1	H	C ₆ H ₅	CH(CH ₃) ₂
IA-79	A ² .1	CH ₃	CH(CH ₃) ₂	CH(CH ₃) ₂
IA-80	A ² .1	CH ₃	CH ₂ CH ₂ CH ₂ CH ₃	CH(CH ₃) ₂
IA-81	A ² .1	CH ₃	CH ₂ CH(CH ₃) ₂	CH(CH ₃) ₂
IA-82	A ² .1	CH ₃	CH ₂ CHCH ₂	CH(CH ₃) ₂
IA-83	A ² .1	CH ₃	CH ₂ CCH	CH(CH ₃) ₂
IA-84	A ² .1	CH ₃	C ₆ H ₅	CH(CH ₃) ₂
IA-85	A ² .1	CH(CH ₃) ₂	CH(CH ₃) ₂	CH(CH ₃) ₂
IA-86	A ² .1	CH(CH ₃) ₂	CH ₂ CH ₂ CH ₂ CH ₃	CH(CH ₃) ₂
IA-87	A ² .1	CH(CH ₃) ₂	CH ₂ CH(CH ₃) ₂	CH(CH ₃) ₂
IA-88	A ² .1	CH(CH ₃) ₂	CH ₂ CHCH ₂	CH(CH ₃) ₂

No.	A	R ^a	R ^b	R ^c
IA-89	A ² .1	CH(CH ₃) ₂	CH ₂ CCH	CH(CH ₃) ₂
IA-90	A ² .1	CH(CH ₃) ₂	C ₆ H ₅	CH(CH ₃) ₂
IA-91	A ² .1	H	CH ₂ CH ₂ CH ₂ CH ₃	CH ₂ CH ₂ CH ₂ CH ₃
IA-92	A ² .1	H	CH ₂ CH(CH ₃) ₂	CH ₂ CH ₂ CH ₂ CH ₃
IA-93	A ² .1	H	CH ₂ CHCH ₂	CH ₂ CH ₂ CH ₂ CH ₃
IA-94	A ² .1	H	CH ₂ CCH	CH ₂ CH ₂ CH ₂ CH ₃
IA-95	A ² .1	H	C ₆ H ₅	CH ₂ CH ₂ CH ₂ CH ₃
IA-96	A ² .1	CH ₃	CH ₂ CH ₂ CH ₂ CH ₃	CH ₂ CH ₂ CH ₂ CH ₃
IA-97	A ² .1	CH ₃	CH ₂ CH(CH ₃) ₂	CH ₂ CH ₂ CH ₂ CH ₃
IA-98	A ² .1	CH ₃	CH ₂ CHCH ₂	CH ₂ CH ₂ CH ₂ CH ₃
IA-99	A ² .1	CH ₃	CH ₂ CCH	CH ₂ CH ₂ CH ₂ CH ₃
IA-100	A ² .1	CH ₃	C ₆ H ₅	CH ₂ CH ₂ CH ₂ CH ₃
IA-101	A ² .1	CH(CH ₃) ₂	CH ₂ CH ₂ CH ₂ CH ₃	CH ₂ CH ₂ CH ₂ CH ₃
IA-102	A ² .1	CH(CH ₃) ₂	CH ₂ CH(CH ₃) ₂	CH ₂ CH ₂ CH ₂ CH ₃
IA-103	A ² .1	CH(CH ₃) ₂	CH ₂ CHCH ₂	CH ₂ CH ₂ CH ₂ CH ₃
IA-104	A ² .1	CH(CH ₃) ₂	CH ₂ CCH	CH ₂ CH ₂ CH ₂ CH ₃
IA-105	A ² .1	CH(CH ₃) ₂	C ₆ H ₅	CH ₂ CH ₂ CH ₂ CH ₃
IA-106	A ² .1	H	CH ₂ CH(CH ₃) ₂	CH ₂ CH(CH ₃) ₂
IA-107	A ² .1	H	CH ₂ CHCH ₂	CH ₂ CH(CH ₃) ₂
IA-108	A ² .1	H	CH ₂ CCH	CH ₂ CH(CH ₃) ₂
IA-109	A ² .1	H	C ₆ H ₅	CH ₂ CH(CH ₃) ₂
IA-110	A ² .1	CH ₃	CH ₂ CH(CH ₃) ₂	CH ₂ CH(CH ₃) ₂
IA-111	A ² .1	CH ₃	CH ₂ CHCH ₂	CH ₂ CH(CH ₃) ₂
IA-112	A ² .1	CH ₃	CH ₂ CCH	CH ₂ CH(CH ₃) ₂
IA-113	A ² .1	CH ₃	C ₆ H ₅	CH ₂ CH(CH ₃) ₂
IA-114	A ² .1	CH(CH ₃) ₂	CH ₂ CH(CH ₃) ₂	CH ₂ CH(CH ₃) ₂
IA-115	A ² .1	CH(CH ₃) ₂	CH ₂ CHCH ₂	CH ₂ CH(CH ₃) ₂
IA-116	A ² .1	CH(CH ₃) ₂	CH ₂ CCH	CH ₂ CH(CH ₃) ₂
IA-117	A ² .1	CH(CH ₃) ₂	C ₆ H ₅	CH ₂ CH(CH ₃) ₂
IA-118	A ² .1	H	CH ₂ CHCH ₂	CH ₂ CHCH ₂
IA-119	A ² .1	H	CH ₂ CCH	CH ₂ CHCH ₂
IA-120	A ² .1	H	C ₆ H ₅	CH ₂ CHCH ₂

No.	A	R ^a	R ^b	R ^c
IA-121	A ² .1	CH ₃	CH ₂ CHCH ₂	CH ₂ CHCH ₂
IA-122	A ² .1	CH ₃	CH ₂ CCH	CH ₂ CHCH ₂
IA-123	A ² .1	CH ₃	C ₆ H ₅	CH ₂ CHCH ₂
IA-124	A ² .1	CH(CH ₃) ₂	CH ₂ CHCH ₂	CH ₂ CHCH ₂
IA-125	A ² .1	CH(CH ₃) ₂	CH ₂ CCH	CH ₂ CHCH ₂
IA-126	A ² .1	CH(CH ₃) ₂	C ₆ H ₅	CH ₂ CHCH ₂
IA-127	A ² .1	H	CH ₂ CCH	CH ₂ CCH
IA-128	A ² .1	H	C ₆ H ₅	CH ₂ CCH
IA-129	A ² .1	CH ₃	CH ₂ CCH	CH ₂ CCH
IA-130	A ² .1	CH ₃	C ₆ H ₅	CH ₂ CCH
IA-131	A ² .1	CH(CH ₃) ₂	CH ₂ CCH	CH ₂ CCH
IA-132	A ² .1	CH(CH ₃) ₂	C ₆ H ₅	CH ₂ CCH
IA-133	A ² .1	H	C ₆ H ₅	C ₆ H ₅
IA-134	A ² .1	CH ₃	C ₆ H ₅	C ₆ H ₅
IA-135	A ² .1	CH(CH ₃) ₂	C ₆ H ₅	C ₆ H ₅

Table 295

Compounds of the formula IA (as defined above) wherein Q¹ denotes hydrogen, Q³ denotes CF₃, and A in each case corresponds to a row of Table B.

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Table 296

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes bromine, and A in each case corresponds to a row of Table B.

10 Table 297

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes chlorine, and A in each case corresponds to a row of Table B.

Table 298

15 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₃, and A in each case corresponds to a row of Table B.

Table 299

20 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OCH₃, and A in each case corresponds to a row of Table B.

Table 300

54

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OCHCH₂, and A in each case corresponds to a row of Table B.

Table 301

- 5 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes ethoxy, and A in each case corresponds to a row of Table B.

Table 302

- 10 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OCH₂CHFOCH₃, and A in each case corresponds to a row of Table B.

Table 303

- 15 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OCH₂CH=CH₂, and A in each case corresponds to a row of Table B.

Table 304

- 20 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OCH₂CCH, and A in each case corresponds to a row of Table B.

Table 305

- 25 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₂OCH₃, and A in each case corresponds to a row of Table B.

Table 306

- 30 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₂OCH₂CH₃, and A in each case corresponds to a row of Table B.

Table 307

- 35 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₂SCH₃, and A in each case corresponds to a row of Table B.

Table 308

- 40 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₂SCH₂CH₃, and A in each case corresponds to a row of Table B.

Table 309

- 45 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₂S(=O)CH₃, and A in each case corresponds to a row of Table B.

Table 310

- 50 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₂S(=O)CH₂CH₃, and A in each case corresponds to a row of Table B.

Table 311

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₂S(=O)₂CH₃, and A in each case corresponds to a row of Table B.

5

Table 312

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₂S(=O)₂CH₂CH₃, and A in each case corresponds to a row of Table B.

10 Table 313

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes -OS(=O)₂CH₃, and A in each case corresponds to a row of Table B.

Table 314

15 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes -OS(=O)₂CH₂CH₃, and A in each case corresponds to a row of Table B.

Table 315

20 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes -OS(=O)₂CH₂CF₃, and A in each case corresponds to a row of Table B.

Table 316

25 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes -OS(=O)₂CClF₂, and A in each case corresponds to a row of Table B.

Table 317

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OC(=O)CF₃, and A in each case corresponds to a row of Table B.

30 Table 318

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes NHCH₂CF₃, and A in each case corresponds to a row of Table B.

Table 319

35 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OCH₂-cyclopropyl, and A in each case corresponds to a row of Table B.

Table 320

40 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OCH₂C(Cl)=CH₂, and A in each case corresponds to a row of Table B.

Table 321

56

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OCH₂CH=CF₂, and A in each case corresponds to a row of Table B.

Table 322

- 5 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes NHS(=O)₂CF₃, and A in each case corresponds to a row of Table B.

Table 323

- 10 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes NHC(=O)CF₃, and A in each case corresponds to a row of Table B.

Table 324

- 15 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OCH₂CN, and A in each case corresponds to a row of Table B.

Table 325

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OCH₂NO₂, and A in each case corresponds to a row of Table B.

20 Table 326

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes cyclopropyloxy, and A in each case corresponds to a row of Table B.

Table 327

- 25 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₂OCHF₂, and A in each case corresponds to a row of Table B.

Table 328

- 30 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₂S(=O)₂CHF₂, and A in each case corresponds to a row of Table B.

Table 329

- 35 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH=NOCH₃, and A in each case corresponds to a row of Table B.

Table 330

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH=NOCH₂CH₃, and A in each case corresponds to a row of Table B.

40 Table 331

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH=NOCH(CH₃)₂ and A in each case corresponds to a row of Table B.

Table 332

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH=NOC(CH₃)₃, and A in each case corresponds to a row of Table B.

5

Table 333

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes C(CH₃)=NOCH₃, and A in each case corresponds to a row of Table B.

10 Table 334

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes C(CH₃)=NOCH₂CH₃, and A in each case corresponds to a row of Table B.

Table 335

15 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes C(CH₃)=NOCH(CH₃)₂, and A in each case corresponds to a row of Table B.

Table 336

20 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes C(CH₃)=NOC(CH₃)₃, and A in each case corresponds to a row of Table B.

Table 337

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CF₃, and A in each case corresponds to a row of Table B.

25

Table 338

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes bromine, and A in each case corresponds to a row of Table B.

30 Table 339

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes chlorine, and A in each case corresponds to a row of Table B.

Table 340

35 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH₃, and A in each case corresponds to a row of Table B.

Table 341

40 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OCH₃, and A in each case corresponds to a row of Table B.

Table 342

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OCHCH₂, and A in each case corresponds to a row of Table B.

Table 343

- 5 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes ethoxy, and A in each case corresponds to a row of Table B.

Table 344

- 10 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OCH₂CHFOCH₃, and A in each case corresponds to a row of Table B.

Table 345

- 15 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OCH₂CH=CH₂, and A in each case corresponds to a row of Table B.

Table 346

- 20 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OCH₂CCH, and A in each case corresponds to a row of Table B.

Table 347

- 25 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH₂OCH₃, and A in each case corresponds to a row of Table B.

Table 348

- 30 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH₂OCH₂CH₃, and A in each case corresponds to a row of Table B.

Table 349

- 35 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH₂SCH₃, and A in each case corresponds to a row of Table B.

Table 350

- 40 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH₂SCH₂CH₃, and A in each case corresponds to a row of Table B.

Table 351

- 45 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH₂S(=O)CH₃, and A in each case corresponds to a row of Table B.

Table 352

- 50 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH₂S(=O)CH₂CH₃, and A in each case corresponds to a row of Table B.

Table 353

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH₂S(=O)₂CH₃, and A in each case corresponds to a row of Table B.

5

Table 354

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH₂S(=O)₂CH₂CH₃, and A in each case corresponds to a row of Table B.

10 Table 355

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes -OS(=O)₂CH₃, and A in each case corresponds to a row of Table B.

Table 356

15 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes -OS(=O)₂CH₂CH₃, and A in each case corresponds to a row of Table B.

Table 357

20 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes -OS(=O)₂CH₂CF₃, and A in each case corresponds to a row of Table B.

Table 358

25 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes -OS(=O)₂CClF₂, and A in each case corresponds to a row of Table B.

Table 359

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OC(=O)CF₃, and A in each case corresponds to a row of Table B.

30 Table 360

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes NHCH₂CF₃, and A in each case corresponds to a row of Table B.

Table 361

35 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OCH₂-cyclopropyl, and A in each case corresponds to a row of Table B.

Table 362

40 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OCH₂C(Cl)=CH₂, and A in each case corresponds to a row of Table B.

Table 363

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OCH₂CH=CF₂, and A in each case corresponds to a row of Table B.

Table 364

- 5 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes NHS(=O)₂CF₃, and A in each case corresponds to a row of Table B.

Table 365

- 10 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes NHC(=O)CF₃, and A in each case corresponds to a row of Table B.

Table 366

- 15 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OCH₂CN, and A in each case corresponds to a row of Table B.

Table 367

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OCH₂NO₂, and A in each case corresponds to a row of Table B.

20 Table 368

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes cyclopropyloxy, and A in each case corresponds to a row of Table B.

Table 369

- 25 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH₂OCHF₂, and A in each case corresponds to a row of Table B.

Table 370

- 30 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH₂S(=O)₂CHF₂, and A in each case corresponds to a row of Table B.

Table 371

- 35 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH=NOCH₃, and A in each case corresponds to a row of Table B.

Table 372

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH=NOCH₂CH₃, and A in each case corresponds to a row of Table B.

40 Table 373

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH=NOCH(CH₃)₂ and A in each case corresponds to a row of Table B.

Table 374

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH=NOC(CH₃)₃, and A in each case corresponds to a row of Table B.

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Table 375

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes C(CH₃)=NOCH₃, and A in each case corresponds to a row of Table B.

10 Table 376

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes C(CH₃)=NOCH₂CH₃, and A in each case corresponds to a row of Table B.

Table 377

15 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes C(CH₃)=NOCH(CH₃)₂, and A in each case corresponds to a row of Table B.

Table 378

20 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes C(CH₃)=NOC(CH₃)₃, and A in each case corresponds to a row of Table B.

Table 379

25 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CF₃, and A in each case corresponds to a row of Table B.

Table 380

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes bromine, and A in each case corresponds to a row of Table B.

30 Table 381

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes chlorine, and A in each case corresponds to a row of Table B.

Table 382

35 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₃, and A in each case corresponds to a row of Table B.

Table 383

40 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OCH₃, and A in each case corresponds to a row of Table B.

Table 384

62

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OCHCH₂, and A in each case corresponds to a row of Table B.

Table 385

- 5 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes ethoxy, and A in each case corresponds to a row of Table B.

Table 386

- 10 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OCH₂CHFOCH₃, and A in each case corresponds to a row of Table B.

Table 387

- 15 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OCH₂CH=CH₂, and A in each case corresponds to a row of Table B.

Table 388

- 20 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OCH₂CCH, and A in each case corresponds to a row of Table B.

Table 389

- 25 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₂OCH₃, and A in each case corresponds to a row of Table B.

Table 390

- 30 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₂OCH₂CH₃, and A in each case corresponds to a row of Table B.

Table 391

- 35 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₂SCH₃, and A in each case corresponds to a row of Table B.

Table 392

- 40 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₂SCH₂CH₃, and A in each case corresponds to a row of Table B.

Table 393

- 45 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₂S(=O)CH₃, and A in each case corresponds to a row of Table B.

Table 394

- 50 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₂S(=O)CH₂CH₃, and A in each case corresponds to a row of Table B.

Table 395

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₂S(=O)₂CH₃, and A in each case corresponds to a row of Table B.

5

Table 396

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₂S(=O)₂CH₂CH₃, and A in each case corresponds to a row of Table B.

10 Table 397

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes -OS(=O)₂CH₃, and A in each case corresponds to a row of Table B.

Table 398

15 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes -OS(=O)₂CH₂CH₃, and A in each case corresponds to a row of Table B.

Table 399

20 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes -OS(=O)₂CH₂CF₃, and A in each case corresponds to a row of Table B.

Table 400

25 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes -OS(=O)₂CClF₂, and A in each case corresponds to a row of Table B.

Table 401

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OC(=O)CF₃, and A in each case corresponds to a row of Table B.

30 Table 402

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes NHCH₂CF₃, and A in each case corresponds to a row of Table B.

Table 403

35 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OCH₂-cyclopropyl, and A in each case corresponds to a row of Table B.

Table 404

40 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OCH₂C(Cl)=CH₂, and A in each case corresponds to a row of Table B.

Table 405

64

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OCH₂CH=CF₂, and A in each case corresponds to a row of Table B.

Table 406

- 5 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes NHS(=O)₂CF₃, and A in each case corresponds to a row of Table B.

Table 407

- 10 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes NHC(=O)CF₃, and A in each case corresponds to a row of Table B.

Table 408

- 15 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OCH₂CN, and A in each case corresponds to a row of Table B.

Table 409

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OCH₂NO₂, and A in each case corresponds to a row of Table B.

20 Table 410

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes cyclopropyloxy, and A in each case corresponds to a row of Table B.

Table 411

- 25 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₂OCHF₂, and A in each case corresponds to a row of Table B.

Table 412

- 30 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₂S(=O)₂CHF₂, and A in each case corresponds to a row of Table B.

Table 413

- 35 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH=NOCH₃, and A in each case corresponds to a row of Table B.

Table 414

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH=NOCH₂CH₃, and A in each case corresponds to a row of Table B.

40 Table 415

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH=NOCH(CH₃)₂ and A in each case corresponds to a row of Table B.

Table 416

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH=NOC(CH₃)₃, and A in each case corresponds to a row of Table B.

5

Table 417

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes C(CH₃)=NOCH₃, and A in each case corresponds to a row of Table B.

10 Table 418

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes C(CH₃)=NOCH₂CH₃, and A in each case corresponds to a row of Table B.

Table 419

15 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes C(CH₃)=NOCH(CH₃)₂, and A in each case corresponds to a row of Table B.

Table 420

20 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes C(CH₃)=NOC(CH₃)₃, and A in each case corresponds to a row of Table B.

Table 421

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CF₃, and A in each case corresponds to a row of Table B.

25

Table 422

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes bromine, and A in each case corresponds to a row of Table B.

30 Table 423

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes chlorine, and A in each case corresponds to a row of Table B.

Table 424

35 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH₃, and A in each case corresponds to a row of Table B.

Table 425

40 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OCH₃, and A in each case corresponds to a row of Table B.

Table 426

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OCHCH₂, and A in each case corresponds to a row of Table B.

Table 427

- 5 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes ethoxy, and A in each case corresponds to a row of Table B.

Table 428

- 10 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OCH₂CHFOCH₃, and A in each case corresponds to a row of Table B.

Table 429

- 15 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OCH₂CH=CH₂, and A in each case corresponds to a row of Table B.

Table 430

- 20 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OCH₂CCH, and A in each case corresponds to a row of Table B.

Table 431

- 25 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH₂OCH₃, and A in each case corresponds to a row of Table B.

Table 432

- 30 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH₂OCH₂CH₃, and A in each case corresponds to a row of Table B.

Table 433

- 35 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH₂SCH₃, and A in each case corresponds to a row of Table B.

Table 434

- 40 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH₂SCH₂CH₃, and A in each case corresponds to a row of Table B.

Table 435

- 45 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH₂S(=O)CH₃, and A in each case corresponds to a row of Table B.

Table 436

- 50 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH₂S(=O)CH₂CH₃, and A in each case corresponds to a row of Table B.

Table 437

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH₂S(=O)₂CH₃, and A in each case corresponds to a row of Table B.

5

Table 438

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH₂S(=O)₂CH₂CH₃, and A in each case corresponds to a row of Table B.

10 Table 439

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes -OS(=O)₂CH₃, and A in each case corresponds to a row of Table B.

Table 440

15 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes -OS(=O)₂CH₂CH₃, and A in each case corresponds to a row of Table B.

Table 441

20 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes -OS(=O)₂CH₂CF₃, and A in each case corresponds to a row of Table B.

Table 442

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes -OS(=O)₂CClF₂, and A in each case corresponds to a row of Table B.

25

Table 443

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OC(=O)CF₃, and A in each case corresponds to a row of Table B.

30 Table 444

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes NHCH₂CF₃, and A in each case corresponds to a row of Table B.

Table 445

35 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OCH₂-cyclopropyl, and A in each case corresponds to a row of Table B.

Table 446

40 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OCH₂C(Cl)=CH₂, and A in each case corresponds to a row of Table B.

Table 447

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OCH₂CH=CF₂, and A in each case corresponds to a row of Table B.

Table 448

- 5 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes NHS(=O)₂CF₃, and A in each case corresponds to a row of Table B.

Table 449

- 10 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes NHC(=O)CF₃, and A in each case corresponds to a row of Table B.

Table 450

- 15 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OCH₂CN, and A in each case corresponds to a row of Table B.

Table 451

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OCH₂NO₂, and A in each case corresponds to a row of Table B.

20 Table 452

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes cyclopropyloxy, and A in each case corresponds to a row of Table B.

Table 453

- 25 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH₂OCHF₂, and A in each case corresponds to a row of Table B.

Table 454

- 30 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH₂S(=O)₂CHF₂, and A in each case corresponds to a row of Table B.

Table 455

- 35 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH=NOCH₃, and A in each case corresponds to a row of Table B.

Table 456

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH=NOCH₂CH₃, and A in each case corresponds to a row of Table B.

40 Table 457

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH=NOCH(CH₃)₂ and A in each case corresponds to a row of Table B.

Table 458

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH=NOC(CH₃)₃, and A in each case corresponds to a row of Table B.

5

Table 459

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes C(CH₃)=NOCH₃, and A in each case corresponds to a row of Table B.

10 Table 460

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes C(CH₃)=NOCH₂CH₃, and A in each case corresponds to a row of Table B.

Table 461

15 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes C(CH₃)=NOCH(CH₃)₂, and A in each case corresponds to a row of Table B.

Table 462

20 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes C(CH₃)=NOC(CH₃)₃, and A in each case corresponds to a row of Table B.

Table 463

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CF₃, and A in each case corresponds to a row of Table B.

25

Table 464

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes bromine, and A in each case corresponds to a row of Table B.

30 Table 465

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes chlorine, and A in each case corresponds to a row of Table B.

Table 466

35 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₃, and A in each case corresponds to a row of Table B.

Table 467

40 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OCH₃, and A in each case corresponds to a row of Table B.

Table 468

70

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OCHCH₂, and A in each case corresponds to a row of Table B.

Table 469

- 5 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes ethoxy, and A in each case corresponds to a row of Table B.

Table 470

- 10 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OCH₂CHFOCH₃, and A in each case corresponds to a row of Table B.

Table 471

- 15 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OCH₂CH=CH₂, and A in each case corresponds to a row of Table B.

Table 472

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OCH₂CCH, and A in each case corresponds to a row of Table B.

20 Table 473

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₂OCH₃, and A in each case corresponds to a row of Table B.

Table 474

- 25 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₂OCH₂CH₃, and A in each case corresponds to a row of Table B.

Table 475

- 30 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₂SCH₃, and A in each case corresponds to a row of Table B.

Table 476

- 35 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₂SCH₂CH₃, and A in each case corresponds to a row of Table B.

Table 477

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₂S(=O)CH₃, and A in each case corresponds to a row of Table B.

40 Table 478

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₂S(=O)CH₂CH₃, and A in each case corresponds to a row of Table B.

Table 479

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₂S(=O)₂CH₃, and A in each case corresponds to a row of Table B.

5

Table 480

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₂S(=O)₂CH₂CH₃, and A in each case corresponds to a row of Table B.

10 Table 481

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes -OS(=O)₂CH₃, and A in each case corresponds to a row of Table B.

Table 482

15 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes -OS(=O)₂CH₂CH₃, and A in each case corresponds to a row of Table B.

Table 483

20 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes -OS(=O)₂CH₂CF₃, and A in each case corresponds to a row of Table B.

Table 484

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes -OS(=O)₂CClF₂, and A in each case corresponds to a row of Table B.

25

Table 485

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OC(=O)CF₃, and A in each case corresponds to a row of Table B.

30 Table 486

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes NHCH₂CF₃, and A in each case corresponds to a row of Table B.

Table 487

35 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OCH₂-cyclopropyl, and A in each case corresponds to a row of Table B.

Table 488

40 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OCH₂C(Cl)=CH₂, and A in each case corresponds to a row of Table B.

Table 489

72

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OCH₂CH=CF₂, and A in each case corresponds to a row of Table B.

Table 490

- 5 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes NHS(=O)₂CF₃, and A in each case corresponds to a row of Table B.

Table 491

- 10 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes NHC(=O)CF₃, and A in each case corresponds to a row of Table B.

Table 492

- 15 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OCH₂CN, and A in each case corresponds to a row of Table B.

Table 493

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OCH₂NO₂, and A in each case corresponds to a row of Table B.

20 Table 494

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes cyclopropyloxy, and A in each case corresponds to a row of Table B.

Table 495

- 25 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₂OCHF₂, and A in each case corresponds to a row of Table B.

Table 496

- 30 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₂S(=O)₂CHF₂, and A in each case corresponds to a row of Table B.

Table 497

- 35 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH=NOCH₃, and A in each case corresponds to a row of Table B.

Table 498

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH=NOCH₂CH₃, and A in each case corresponds to a row of Table B.

40 Table 499

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH=NOCH(CH₃)₂ and A in each case corresponds to a row of Table B.

Table 500

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH=NOC(CH₃)₃, and A in each case corresponds to a row of Table B.

5

Table 501

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes C(CH₃)=NOCH₃, and A in each case corresponds to a row of Table B.

10 Table 502

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes C(CH₃)=NOCH₂CH₃, and A in each case corresponds to a row of Table B.

Table 503

15 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes C(CH₃)=NOCH(CH₃)₂, and A in each case corresponds to a row of Table B.

Table 504

20 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes C(CH₃)=NOC(CH₃)₃, and A in each case corresponds to a row of Table B.

Table 505

25 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CF₃, and A in each case corresponds to a row of Table B.

Table 506

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes bromine, and A in each case corresponds to a row of Table B.

30 Table 507

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes chlorine, and A in each case corresponds to a row of Table B.

Table 508

35 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₃, and A in each case corresponds to a row of Table B.

Table 509

40 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OCH₃, and A in each case corresponds to a row of Table B.

Table 510

74

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OCHCH₂, and A in each case corresponds to a row of Table B.

Table 511

- 5 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes ethoxy, and A in each case corresponds to a row of Table B.

Table 512

- 10 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OCH₂CHFOCH₃, and A in each case corresponds to a row of Table B.

Table 513

- 15 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OCH₂CH=CH₂, and A in each case corresponds to a row of Table B.

Table 514

- 20 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OCH₂CCH, and A in each case corresponds to a row of Table B.

Table 515

- 25 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₂OCH₃, and A in each case corresponds to a row of Table B.

Table 516

- 30 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₂OCH₂CH₃, and A in each case corresponds to a row of Table B.

Table 517

- 35 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₂SCH₃, and A in each case corresponds to a row of Table B.

Table 518

- 40 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₂SCH₂CH₃, and A in each case corresponds to a row of Table B.

Table 519

- 45 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₂S(=O)CH₃, and A in each case corresponds to a row of Table B.

Table 520

- 50 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₂S(=O)CH₂CH₃, and A in each case corresponds to a row of Table B.

Table 521

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₂S(=O)₂CH₃, and A in each case corresponds to a row of Table B.

5

Table 522

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₂S(=O)₂CH₂CH₃, and A in each case corresponds to a row of Table B.

10 Table 523

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes -OS(=O)₂CH₃, and A in each case corresponds to a row of Table B.

Table 524

15 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes -OS(=O)₂CH₂CH₃, and A in each case corresponds to a row of Table B.

Table 525

20 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes -OS(=O)₂CH₂CF₃, and A in each case corresponds to a row of Table B.

Table 526

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes -OS(=O)₂CClF₂, and A in each case corresponds to a row of Table B.

25

Table 527

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OC(=O)CF₃, and A in each case corresponds to a row of Table B.

30 Table 528

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes NHCH₂CF₃, and A in each case corresponds to a row of Table B.

Table 529

35 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OCH₂-cyclopropyl, and A in each case corresponds to a row of Table B.

Table 530

40 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OCH₂C(Cl)=CH₂, and A in each case corresponds to a row of Table B.

Table 531

76

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OCH₂CH=CF₂, and A in each case corresponds to a row of Table B.

Table 532

- 5 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes NHS(=O)₂CF₃, and A in each case corresponds to a row of Table B.

Table 533

- 10 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes NHC(=O)CF₃, and A in each case corresponds to a row of Table B.

Table 534

- 15 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OCH₂CN, and A in each case corresponds to a row of Table B.

Table 535

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OCH₂NO₂, and A in each case corresponds to a row of Table B.

20 Table 536

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes cyclopropyloxy, and A in each case corresponds to a row of Table B.

Table 537

- 25 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₂OCHF₂, and A in each case corresponds to a row of Table B.

Table 538

- 30 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₂S(=O)₂CHF₂, and A in each case corresponds to a row of Table B.

Table 539

- 35 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH=NOCH₃, and A in each case corresponds to a row of Table B.

Table 540

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH=NOCH₂CH₃, and A in each case corresponds to a row of Table B.

40 Table 541

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH=NOCH(CH₃)₂ and A in each case corresponds to a row of Table B.

Table 542

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH=NOC(CH₃)₃, and A in each case corresponds to a row of Table B.

5

Table 543

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes C(CH₃)=NOCH₃, and A in each case corresponds to a row of Table B.

10 Table 544

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes C(CH₃)=NOCH₂CH₃, and A in each case corresponds to a row of Table B.

Table 545

15 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes C(CH₃)=NOCH(CH₃)₂, and A in each case corresponds to a row of Table B.

Table 546

20 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes C(CH₃)=NOC(CH₃)₃, and A in each case corresponds to a row of Table B.

Table 547

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CF₃, and A in each case corresponds to a row of Table B.

25

Table 548

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes bromine, and A in each case corresponds to a row of Table B.

30 Table 549

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes chlorine, and A in each case corresponds to a row of Table B.

Table 550

35 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₃, and A in each case corresponds to a row of Table B.

Table 551

40 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OCH₃, and A in each case corresponds to a row of Table B.

Table 552

78

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OCHCH₂, and A in each case corresponds to a row of Table B.

Table 553

- 5 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes ethoxy, and A in each case corresponds to a row of Table B.

Table 554

- 10 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OCH₂CHFOCH₃, and A in each case corresponds to a row of Table B.

Table 555

- 15 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OCH₂CH=CH₂, and A in each case corresponds to a row of Table B.

Table 556

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OCH₂CCH, and A in each case corresponds to a row of Table B.

20 Table 557

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₂OCH₃, and A in each case corresponds to a row of Table B.

Table 558

- 25 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₂OCH₂CH₃, and A in each case corresponds to a row of Table B.

Table 559

- 30 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₂SCH₃, and A in each case corresponds to a row of Table B.

Table 560

- 35 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₂SCH₂CH₃, and A in each case corresponds to a row of Table B.

Table 561

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₂S(=O)CH₃, and A in each case corresponds to a row of Table B.

40 Table 562

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₂S(=O)CH₂CH₃, and A in each case corresponds to a row of Table B.

Table 563

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₂S(=O)₂CH₃, and A in each case corresponds to a row of Table B.

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Table 564

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₂S(=O)₂CH₂CH₃, and A in each case corresponds to a row of Table B.

10 Table 565

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes -OS(=O)₂CH₃, and A in each case corresponds to a row of Table B.

Table 566

15 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes -OS(=O)₂CH₂CH₃, and A in each case corresponds to a row of Table B.

Table 567

20 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes -OS(=O)₂CH₂CF₃, and A in each case corresponds to a row of Table B.

Table 568

25 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes -OS(=O)₂CClF₂, and A in each case corresponds to a row of Table B.

Table 569

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OC(=O)CF₃, and A in each case corresponds to a row of Table B.

30 Table 570

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes NHCH₂CF₃, and A in each case corresponds to a row of Table B.

Table 571

35 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OCH₂-cyclopropyl, and A in each case corresponds to a row of Table B.

Table 572

40 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OCH₂C(Cl)=CH₂, and A in each case corresponds to a row of Table B.

Table 573

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OCH₂CH=CF₂, and A in each case corresponds to a row of Table B.

Table 574

- 5 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes NHS(=O)₂CF₃, and A in each case corresponds to a row of Table B.

Table 575

- 10 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes NHC(=O)CF₃, and A in each case corresponds to a row of Table B.

Table 576

- 15 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OCH₂CN, and A in each case corresponds to a row of Table B.

Table 577

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OCH₂NO₂, and A in each case corresponds to a row of Table B.

20 Table 578

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes cyclopropyloxy, and A in each case corresponds to a row of Table B.

Table 579

- 25 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₂OCHF₂, and A in each case corresponds to a row of Table B.

Table 580

- 30 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₂S(=O)₂CHF₂, and A in each case corresponds to a row of Table B.

Table 581

- 35 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH=NOCH₃, and A in each case corresponds to a row of Table B.

Table 582

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH=NOCH₂CH₃, and A in each case corresponds to a row of Table B.

40 Table 583

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH=NOCH(CH₃)₂ and A in each case corresponds to a row of Table B.

Table 584

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH=NOC(CH₃)₃, and A in each case corresponds to a row of Table B.

5

Table 585

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes C(CH₃)=NOCH₃, and A in each case corresponds to a row of Table B.

10 Table 586

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes C(CH₃)=NOCH₂CH₃, and A in each case corresponds to a row of Table B.

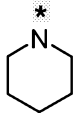
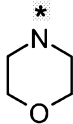
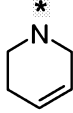
Table 587

15 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes C(CH₃)=NOCH(CH₃)₂, and A in each case corresponds to a row of Table B.

Table 588

20 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes C(CH₃)=NOC(CH₃)₃, and A in each case corresponds to a row of Table B.

Table B

No.	A	R ^{a#}	R ^d
IA-136	$\begin{array}{c} \text{O} \\ \parallel \\ \text{---N---S---R}^d \\ \\ \text{R}^{a\#} \\ \text{A}^{2.2} \end{array}$	H	
IA-137	A ^{2.2}	CH ₃	
IA-138	A ^{2.2}	CH(CH ₃) ₂	

* denotes the binding site.

25 Table 589

Compounds of the formula IA (as defined above) wherein Q¹ denotes hydrogen, Q³ denotes CF₃, and A in each case corresponds to a row of Table C.

Table 590

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes bromine, and A in each case corresponds to a row of Table C.

5 Table 591

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes chlorine, and A in each case corresponds to a row of Table C.

Table 592

10 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₃, and A in each case corresponds to a row of Table C.

Table 593

15 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OCH₃, and A in each case corresponds to a row of Table C.

Table 594

20 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OCHCH₂, and A in each case corresponds to a row of Table C.

Table 595

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes ethoxy, and A in each case corresponds to a row of Table C.

25 Table 596

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OCH₂CHFOCH₃, and A in each case corresponds to a row of Table C.

Table 597

30 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OCH₂CH=CH₂, and A in each case corresponds to a row of Table C.

Table 598

35 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OCH₂CCH, and A in each case corresponds to a row of Table C.

Table 599

40 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₂OCH₃, and A in each case corresponds to a row of Table C.

Table 600

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₂OCH₂CH₃, and A in each case corresponds to a row of Table C.

Table 601

- 5 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₂SCH₃, and A in each case corresponds to a row of Table C.

Table 602

- 10 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₂SCH₂CH₃, and A in each case corresponds to a row of Table C.

Table 603

- 15 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₂S(=O)CH₃, and A in each case corresponds to a row of Table C.

Table 604

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₂S(=O)CH₂CH₃, and A in each case corresponds to a row of Table C.

20 Table 605

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₂S(=O)₂CH₃, and A in each case corresponds to a row of Table C.

Table 606

- 25 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₂S(=O)₂CH₂CH₃, and A in each case corresponds to a row of Table C.

Table 607

- 30 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes -OS(=O)₂CH₃, and A in each case corresponds to a row of Table C.

Table 608

- 35 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes -OS(=O)₂CH₂CH₃, and A in each case corresponds to a row of Table C.

Table 609

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes -OS(=O)₂CH₂CF₃, and A in each case corresponds to a row of Table C.

40 Table 610

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes -OS(=O)₂CClF₂, and A in each case corresponds to a row of Table C.

Table 611

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OC(=O)CF₃, and A in each case corresponds to a row of Table C.

5

Table 612

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes NHCH₂CF₃, and A in each case corresponds to a row of Table C.

10 Table 613

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OCH₂-cyclopropyl, and A in each case corresponds to a row of Table C.

Table 614

15 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OCH₂C(Cl)=CH₂, and A in each case corresponds to a row of Table C.

Table 615

20 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OCH₂CH=CF₂, and A in each case corresponds to a row of Table C.

Table 616

25 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes NHS(=O)₂CF₃, and A in each case corresponds to a row of Table C.

Table 617

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes NHC(=O)CF₃, and A in each case corresponds to a row of Table C.

30 Table 618

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OCH₂CN, and A in each case corresponds to a row of Table C.

Table 619

35 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OCH₂NO₂, and A in each case corresponds to a row of Table C.

Table 620

40 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes cyclopropyloxy, and A in each case corresponds to a row of Table C.

Table 621

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₂OCHF₂, and A in each case corresponds to a row of Table C.

Table 622

- 5 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₂S(=O)₂CHF₂, and A in each case corresponds to a row of Table C.

Table 623

- 10 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH=NOCH₃, and A in each case corresponds to a row of Table C.

Table 624

- 15 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH=NOCH₂CH₃, and A in each case corresponds to a row of Table C.

Table 625

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH=NOCH(CH₃)₂ and A in each case corresponds to a row of Table C.

20 Table 626

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH=NOC(CH₃)₃, and A in each case corresponds to a row of Table C.

Table 627

- 25 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes C(CH₃)=NOCH₃, and A in each case corresponds to a row of Table C.

Table 628

- 30 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes C(CH₃)=NOCH₂CH₃, and A in each case corresponds to a row of Table C.

Table 629

- 35 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes C(CH₃)=NOCH(CH₃)₂, and A in each case corresponds to a row of Table C.

Table 630

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes C(CH₃)=NOC(CH₃)₃, and A in each case corresponds to a row of Table C.

40 Table 631

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CF₃, and A in each case corresponds to a row of Table C.

Table 632

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes bromine, and A in each case corresponds to a row of Table C.

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Table 633

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes chlorine, and A in each case corresponds to a row of Table C.

10 Table 634

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH₃, and A in each case corresponds to a row of Table C.

Table 635

15 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OCH₃, and A in each case corresponds to a row of Table C.

Table 636

20 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OCHCH₂, and A in each case corresponds to a row of Table C.

Table 637

25 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes ethoxy, and A in each case corresponds to a row of Table C.

Table 638

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OCH₂CHFOCH₃, and A in each case corresponds to a row of Table C.

30 Table 639

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OCH₂CH=CH₂, and A in each case corresponds to a row of Table C.

Table 640

35 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OCH₂CCH, and A in each case corresponds to a row of Table C.

Table 641

40 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH₂OCH₃, and A in each case corresponds to a row of Table C.

Table 642

87

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH₂OCH₂CH₃, and A in each case corresponds to a row of Table C.

Table 643

- 5 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH₂SCH₃, and A in each case corresponds to a row of Table C.

Table 644

- 10 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH₂SCH₂CH₃, and A in each case corresponds to a row of Table C.

Table 645

- 15 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH₂S(=O)CH₃, and A in each case corresponds to a row of Table C.

Table 646

- 20 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH₂S(=O)CH₂CH₃, and A in each case corresponds to a row of Table C.

Table 647

- 25 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH₂S(=O)₂CH₃, and A in each case corresponds to a row of Table C.

Table 648

- 30 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH₂S(=O)₂CH₂CH₃, and A in each case corresponds to a row of Table C.

Table 649

- 35 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes -OS(=O)₂CH₃, and A in each case corresponds to a row of Table C.

Table 650

- 40 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes -OS(=O)₂CH₂CH₃, and A in each case corresponds to a row of Table C.

Table 651

- 45 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes -OS(=O)₂CH₂CF₃, and A in each case corresponds to a row of Table C.

Table 652

- 50 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes -OS(=O)₂CClF₂, and A in each case corresponds to a row of Table C.

Table 653

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OC(=O)CF₃, and A in each case corresponds to a row of Table C.

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Table 654

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes NHCH₂CF₃, and A in each case corresponds to a row of Table C.

10 Table 655

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OCH₂-cyclopropyl, and A in each case corresponds to a row of Table C.

Table 656

15 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OCH₂C(Cl)=CH₂, and A in each case corresponds to a row of Table C.

Table 657

20 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OCH₂CH=CF₂, and A in each case corresponds to a row of Table C.

Table 658

25 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes NHS(=O)₂CF₃, and A in each case corresponds to a row of Table C.

Table 659

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes NHC(=O)CF₃, and A in each case corresponds to a row of Table C.

30 Table 660

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OCH₂CN, and A in each case corresponds to a row of Table C.

Table 661

35 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OCH₂NO₂, and A in each case corresponds to a row of Table C.

Table 662

40 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes cyclopropyloxy, and A in each case corresponds to a row of Table C.

Table 663

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH₂OCHF₂, and A in each case corresponds to a row of Table C.

Table 664

- 5 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH₂S(=O)₂CHF₂, and A in each case corresponds to a row of Table C.

Table 665

- 10 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH=NOCH₃, and A in each case corresponds to a row of Table C.

Table 666

- 15 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH=NOCH₂CH₃, and A in each case corresponds to a row of Table C.

Table 667

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH=NOCH(CH₃)₂ and A in each case corresponds to a row of Table C.

20 Table 668

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH=NOC(CH₃)₃, and A in each case corresponds to a row of Table C.

Table 669

- 25 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes C(CH₃)=NOCH₃, and A in each case corresponds to a row of Table C.

Table 670

- 30 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes C(CH₃)=NOCH₂CH₃, and A in each case corresponds to a row of Table C.

Table 671

- 35 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes C(CH₃)=NOCH(CH₃)₂, and A in each case corresponds to a row of Table C.

Table 672

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes C(CH₃)=NOC(CH₃)₃, and A in each case corresponds to a row of Table C.

40 Table 673

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CF₃, and A in each case corresponds to a row of Table C.

Table 674

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes bromine, and A in each case corresponds to a row of Table C.

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Table 675

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes chlorine, and A in each case corresponds to a row of Table C.

10 Table 676

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₃, and A in each case corresponds to a row of Table C.

Table 677

15 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OCH₃, and A in each case corresponds to a row of Table C.

Table 678

20 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OCHCH₂, and A in each case corresponds to a row of Table C.

Table 679

25 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes ethoxy, and A in each case corresponds to a row of Table C.

Table 680

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OCH₂CHFOCH₃, and A in each case corresponds to a row of Table C.

30 Table 681

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OCH₂CH=CH₂, and A in each case corresponds to a row of Table C.

Table 682

35 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OCH₂CCH, and A in each case corresponds to a row of Table C.

Table 683

40 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₂OCH₃, and A in each case corresponds to a row of Table C.

Table 684

91

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₂OCH₂CH₃, and A in each case corresponds to a row of Table C.

Table 685

- 5 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₂SCH₃, and A in each case corresponds to a row of Table C.

Table 686

- 10 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₂SCH₂CH₃, and A in each case corresponds to a row of Table C.

Table 687

- 15 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₂S(=O)CH₃, and A in each case corresponds to a row of Table C.

Table 688

- 20 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₂S(=O)CH₂CH₃, and A in each case corresponds to a row of Table C.

Table 689

- 25 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₂S(=O)₂CH₃, and A in each case corresponds to a row of Table C.

Table 690

- 30 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₂S(=O)₂CH₂CH₃, and A in each case corresponds to a row of Table C.

Table 691

- 35 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes -OS(=O)₂CH₃, and A in each case corresponds to a row of Table C.

Table 692

- 40 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes -OS(=O)₂CH₂CH₃, and A in each case corresponds to a row of Table C.

Table 693

- 45 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes -OS(=O)₂CH₂CF₃, and A in each case corresponds to a row of Table C.

Table 694

- 50 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes -OS(=O)₂CClF₂, and A in each case corresponds to a row of Table C.

Table 695

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OC(=O)CF₃, and A in each case corresponds to a row of Table C.

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Table 696

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes NHCH₂CF₃, and A in each case corresponds to a row of Table C.

10 Table 697

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OCH₂-cyclopropyl, and A in each case corresponds to a row of Table C.

Table 698

15 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OCH₂C(Cl)=CH₂, and A in each case corresponds to a row of Table C.

Table 699

20 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OCH₂CH=CF₂, and A in each case corresponds to a row of Table C.

Table 700

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes NHS(=O)₂CF₃, and A in each case corresponds to a row of Table C.

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Table 701

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes NHC(=O)CF₃, and A in each case corresponds to a row of Table C.

30 Table 702

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OCH₂CN, and A in each case corresponds to a row of Table C.

Table 703

35 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OCH₂NO₂, and A in each case corresponds to a row of Table C.

Table 704

40 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes cyclopropyloxy, and A in each case corresponds to a row of Table C.

Table 705

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₂OCHF₂, and A in each case corresponds to a row of Table C.

Table 706

- 5 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₂S(=O)₂CHF₂, and A in each case corresponds to a row of Table C.

Table 707

- 10 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH=NOCH₃, and A in each case corresponds to a row of Table C.

Table 708

- 15 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH=NOCH₂CH₃, and A in each case corresponds to a row of Table C.

Table 709

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH=NOCH(CH₃)₂ and A in each case corresponds to a row of Table C.

20 Table 710

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH=NOC(CH₃)₃, and A in each case corresponds to a row of Table C.

Table 711

- 25 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes C(CH₃)=NOCH₃, and A in each case corresponds to a row of Table C.

Table 712

- 30 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes C(CH₃)=NOCH₂CH₃, and A in each case corresponds to a row of Table C.

Table 713

- 35 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes C(CH₃)=NOCH(CH₃)₂, and A in each case corresponds to a row of Table C.

Table 714

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes C(CH₃)=NOC(CH₃)₃, and A in each case corresponds to a row of Table C.

40 Table 715

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CF₃, and A in each case corresponds to a row of Table C.

Table 716

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes bromine, and A in each case corresponds to a row of Table C.

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Table 717

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes chlorine, and A in each case corresponds to a row of Table C.

10 Table 718

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH₃, and A in each case corresponds to a row of Table C.

Table 719

15 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OCH₃, and A in each case corresponds to a row of Table C.

Table 720

20 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OCHCH₂, and A in each case corresponds to a row of Table C.

Table 721

25 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes ethoxy, and A in each case corresponds to a row of Table C.

Table 722

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OCH₂CHFOCH₃, and A in each case corresponds to a row of Table C.

30 Table 723

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OCH₂CH=CH₂, and A in each case corresponds to a row of Table C.

Table 724

35 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OCH₂CCH, and A in each case corresponds to a row of Table C.

Table 725

40 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH₂OCH₃, and A in each case corresponds to a row of Table C.

Table 726

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH₂OCH₂CH₃, and A in each case corresponds to a row of Table C.

Table 727

- 5 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH₂SCH₃, and A in each case corresponds to a row of Table C.

Table 728

- 10 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH₂SCH₂CH₃, and A in each case corresponds to a row of Table C.

Table 729

- 15 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH₂S(=O)CH₃, and A in each case corresponds to a row of Table C.

Table 730

- 20 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH₂S(=O)CH₂CH₃, and A in each case corresponds to a row of Table C.

Table 731

- 25 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH₂S(=O)₂CH₃, and A in each case corresponds to a row of Table C.

Table 732

- 30 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH₂S(=O)₂CH₂CH₃, and A in each case corresponds to a row of Table C.

Table 733

- 35 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes -OS(=O)₂CH₃, and A in each case corresponds to a row of Table C.

Table 734

- 40 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes -OS(=O)₂CH₂CH₃, and A in each case corresponds to a row of Table C.

Table 735

- 45 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes -OS(=O)₂CH₂CF₃, and A in each case corresponds to a row of Table C.

Table 736

- 50 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes -OS(=O)₂CClF₂, and A in each case corresponds to a row of Table C.

Table 737

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OC(=O)CF₃, and A in each case corresponds to a row of Table C.

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Table 738

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes NHCH₂CF₃, and A in each case corresponds to a row of Table C.

10 Table 739

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OCH₂-cyclopropyl, and A in each case corresponds to a row of Table C.

Table 740

15 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OCH₂C(Cl)=CH₂, and A in each case corresponds to a row of Table C.

Table 741

20 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OCH₂CH=CF₂, and A in each case corresponds to a row of Table C.

Table 742

25 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes NHS(=O)₂CF₃, and A in each case corresponds to a row of Table C.

Table 743

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes NHC(=O)CF₃, and A in each case corresponds to a row of Table C.

30 Table 744

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OCH₂CN, and A in each case corresponds to a row of Table C.

Table 745

35 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OCH₂NO₂, and A in each case corresponds to a row of Table C.

Table 746

40 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes cyclopropyloxy, and A in each case corresponds to a row of Table C.

Table 747

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH₂OCHF₂, and A in each case corresponds to a row of Table C.

Table 748

- 5 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH₂S(=O)₂CHF₂, and A in each case corresponds to a row of Table C.

Table 749

- 10 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH=NOCH₃, and A in each case corresponds to a row of Table C.

Table 750

- 15 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH=NOCH₂CH₃, and A in each case corresponds to a row of Table C.

Table 751

- 20 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH=NOCH(CH₃)₂ and A in each case corresponds to a row of Table C.

Table 752

- 25 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH=NOC(CH₃)₃, and A in each case corresponds to a row of Table C.

Table 753

- 30 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes C(CH₃)=NOCH₃, and A in each case corresponds to a row of Table C.

Table 754

- 35 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes C(CH₃)=NOCH₂CH₃, and A in each case corresponds to a row of Table C.

Table 755

- 40 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes C(CH₃)=NOCH(CH₃)₂, and A in each case corresponds to a row of Table C.

Table 756

- 45 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes C(CH₃)=NOC(CH₃)₃, and A in each case corresponds to a row of Table C.

Table 757

- 50 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CF₃, and A in each case corresponds to a row of Table C.

Table 758

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes bromine, and A in each case corresponds to a row of Table C.

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Table 759

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes chlorine, and A in each case corresponds to a row of Table C.

10 Table 760

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₃, and A in each case corresponds to a row of Table C.

Table 761

15 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OCH₃, and A in each case corresponds to a row of Table C.

Table 762

20 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OCHCH₂, and A in each case corresponds to a row of Table C.

Table 763

25 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes ethoxy, and A in each case corresponds to a row of Table C.

Table 764

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OCH₂CHFOCH₃, and A in each case corresponds to a row of Table C.

30 Table 765

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OCH₂CH=CH₂, and A in each case corresponds to a row of Table C.

Table 766

35 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OCH₂CCH, and A in each case corresponds to a row of Table C.

Table 767

40 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₂OCH₃, and A in each case corresponds to a row of Table C.

Table 768

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₂OCH₂CH₃, and A in each case corresponds to a row of Table C.

Table 769

- 5 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₂SCH₃, and A in each case corresponds to a row of Table C.

Table 770

- 10 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₂SCH₂CH₃, and A in each case corresponds to a row of Table C.

Table 771

- 15 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₂S(=O)CH₃, and A in each case corresponds to a row of Table C.

Table 772

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₂S(=O)CH₂CH₃, and A in each case corresponds to a row of Table C.

20 Table 773

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₂S(=O)₂CH₃, and A in each case corresponds to a row of Table C.

Table 774

- 25 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₂S(=O)₂CH₂CH₃, and A in each case corresponds to a row of Table C.

Table 775

- 30 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes -OS(=O)₂CH₃, and A in each case corresponds to a row of Table C.

Table 776

- 35 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes -OS(=O)₂CH₂CH₃, and A in each case corresponds to a row of Table C.

Table 777

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes -OS(=O)₂CH₂CF₃, and A in each case corresponds to a row of Table C.

40 Table 778

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes -OS(=O)₂CClF₂, and A in each case corresponds to a row of Table C.

Table 779

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OC(=O)CF₃, and A in each case corresponds to a row of Table C.

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Table 780

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes NHCH₂CF₃, and A in each case corresponds to a row of Table C.

10 Table 781

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OCH₂-cyclopropyl, and A in each case corresponds to a row of Table C.

Table 782

15 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OCH₂C(Cl)=CH₂, and A in each case corresponds to a row of Table C.

Table 783

20 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OCH₂CH=CF₂, and A in each case corresponds to a row of Table C.

Table 784

25 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes NHS(=O)₂CF₃, and A in each case corresponds to a row of Table C.

Table 785

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes NHC(=O)CF₃, and A in each case corresponds to a row of Table C.

30 Table 786

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OCH₂CN, and A in each case corresponds to a row of Table C.

Table 787

35 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OCH₂NO₂, and A in each case corresponds to a row of Table C.

Table 788

40 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes cyclopropyloxy, and A in each case corresponds to a row of Table C.

Table 789

101

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₂OCHF₂, and A in each case corresponds to a row of Table C.

Table 790

- 5 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₂S(=O)₂CHF₂, and A in each case corresponds to a row of Table C.

Table 791

- 10 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH=NOCH₃, and A in each case corresponds to a row of Table C.

Table 792

- 15 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH=NOCH₂CH₃, and A in each case corresponds to a row of Table C.

Table 793

- 20 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH=NOCH(CH₃)₂ and A in each case corresponds to a row of Table C.

Table 794

- 25 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH=NOC(CH₃)₃, and A in each case corresponds to a row of Table C.

Table 795

- 30 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes C(CH₃)=NOCH₃, and A in each case corresponds to a row of Table C.

Table 796

- 35 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes C(CH₃)=NOCH₂CH₃, and A in each case corresponds to a row of Table C.

Table 797

- 40 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes C(CH₃)=NOCH(CH₃)₂, and A in each case corresponds to a row of Table C.

Table 798

- 45 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes C(CH₃)=NOC(CH₃)₃, and A in each case corresponds to a row of Table C.

Table 799

- 50 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CF₃, and A in each case corresponds to a row of Table C.

Table 800

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes bromine, and A in each case corresponds to a row of Table C.

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Table 801

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes chlorine, and A in each case corresponds to a row of Table C.

10 Table 802

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₃, and A in each case corresponds to a row of Table C.

Table 803

15 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OCH₃, and A in each case corresponds to a row of Table C.

Table 804

20 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OCHCH₂, and A in each case corresponds to a row of Table C.

Table 805

25 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes ethoxy, and A in each case corresponds to a row of Table C.

Table 806

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OCH₂CHFOCH₃, and A in each case corresponds to a row of Table C.

30 Table 807

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OCH₂CH=CH₂, and A in each case corresponds to a row of Table C.

Table 808

35 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OCH₂CCH, and A in each case corresponds to a row of Table C.

Table 809

40 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₂OCH₃, and A in each case corresponds to a row of Table C.

Table 810

103

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₂OCH₂CH₃, and A in each case corresponds to a row of Table C.

Table 811

- 5 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₂SCH₃, and A in each case corresponds to a row of Table C.

Table 812

- 10 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₂SCH₂CH₃, and A in each case corresponds to a row of Table C.

Table 813

- 15 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₂S(=O)CH₃, and A in each case corresponds to a row of Table C.

Table 814

- 20 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₂S(=O)CH₂CH₃, and A in each case corresponds to a row of Table C.

Table 815

- 25 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₂S(=O)₂CH₃, and A in each case corresponds to a row of Table C.

Table 816

- 30 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₂S(=O)₂CH₂CH₃, and A in each case corresponds to a row of Table C.

Table 817

- 35 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes -OS(=O)₂CH₃, and A in each case corresponds to a row of Table C.

Table 818

- 40 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes -OS(=O)₂CH₂CH₃, and A in each case corresponds to a row of Table C.

Table 819

- 45 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes -OS(=O)₂CH₂CF₃, and A in each case corresponds to a row of Table C.

Table 820

- 50 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes -OS(=O)₂CClF₂, and A in each case corresponds to a row of Table C.

Table 821

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OC(=O)CF₃, and A in each case corresponds to a row of Table C.

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Table 822

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes NHCH₂CF₃, and A in each case corresponds to a row of Table C.

10 Table 823

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OCH₂-cyclopropyl, and A in each case corresponds to a row of Table C.

Table 824

15 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OCH₂C(Cl)=CH₂, and A in each case corresponds to a row of Table C.

Table 825

20 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OCH₂CH=CF₂, and A in each case corresponds to a row of Table C.

Table 826

25 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes NHS(=O)₂CF₃, and A in each case corresponds to a row of Table C.

Table 827

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes NHC(=O)CF₃, and A in each case corresponds to a row of Table C.

30 Table 828

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OCH₂CN, and A in each case corresponds to a row of Table C.

Table 829

35 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OCH₂NO₂, and A in each case corresponds to a row of Table C.

Table 830

40 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes cyclopropyloxy, and A in each case corresponds to a row of Table C.

Table 831

105

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₂OCHF₂, and A in each case corresponds to a row of Table C.

Table 832

- 5 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₂S(=O)₂CHF₂, and A in each case corresponds to a row of Table C.

Table 833

- 10 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH=NOCH₃, and A in each case corresponds to a row of Table C.

Table 834

- 15 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH=NOCH₂CH₃, and A in each case corresponds to a row of Table C.

Table 835

- 20 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH=NOCH(CH₃)₂ and A in each case corresponds to a row of Table C.

Table 836

- 25 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH=NOC(CH₃)₃, and A in each case corresponds to a row of Table C.

Table 837

- 30 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes C(CH₃)=NOCH₃, and A in each case corresponds to a row of Table C.

Table 838

- 35 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes C(CH₃)=NOCH₂CH₃, and A in each case corresponds to a row of Table C.

Table 839

- 40 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes C(CH₃)=NOCH(CH₃)₂, and A in each case corresponds to a row of Table C.

Table 840

- 45 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes C(CH₃)=NOC(CH₃)₃, and A in each case corresponds to a row of Table C.

Table 841

- 50 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CF₃, and A in each case corresponds to a row of Table C.

Table 842

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes bromine, and A in each case corresponds to a row of Table C.

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Table 843

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes chlorine, and A in each case corresponds to a row of Table C.

10 Table 844

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₃, and A in each case corresponds to a row of Table C.

Table 845

15 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OCH₃, and A in each case corresponds to a row of Table C.

Table 846

20 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OCHCH₂, and A in each case corresponds to a row of Table C.

Table 847

25 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes ethoxy, and A in each case corresponds to a row of Table C.

Table 848

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OCH₂CHFOCH₃, and A in each case corresponds to a row of Table C.

30 Table 849

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OCH₂CH=CH₂, and A in each case corresponds to a row of Table C.

Table 850

35 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OCH₂CCH, and A in each case corresponds to a row of Table C.

Table 851

40 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₂OCH₃, and A in each case corresponds to a row of Table C.

Table 852

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Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₂OCH₂CH₃, and A in each case corresponds to a row of Table C.

Table 853

- 5 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₂SCH₃, and A in each case corresponds to a row of Table C.

Table 854

- 10 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₂SCH₂CH₃, and A in each case corresponds to a row of Table C.

Table 855

- 15 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₂S(=O)CH₃, and A in each case corresponds to a row of Table C.

Table 856

- 20 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₂S(=O)CH₂CH₃, and A in each case corresponds to a row of Table C.

Table 857

- 25 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₂S(=O)₂CH₃, and A in each case corresponds to a row of Table C.

Table 858

- 30 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₂S(=O)₂CH₂CH₃, and A in each case corresponds to a row of Table C.

Table 859

- 35 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes -OS(=O)₂CH₃, and A in each case corresponds to a row of Table C.

Table 860

- 40 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes -OS(=O)₂CH₂CH₃, and A in each case corresponds to a row of Table C.

Table 861

- 45 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes -OS(=O)₂CH₂CF₃, and A in each case corresponds to a row of Table C.

Table 862

- 50 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes -OS(=O)₂CClF₂, and A in each case corresponds to a row of Table C.

Table 863

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OC(=O)CF₃, and A in each case corresponds to a row of Table C.

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Table 864

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes NHCH₂CF₃, and A in each case corresponds to a row of Table C.

10 Table 865

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OCH₂-cyclopropyl, and A in each case corresponds to a row of Table C.

Table 866

15 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OCH₂C(Cl)=CH₂, and A in each case corresponds to a row of Table C.

Table 867

20 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OCH₂CH=CF₂, and A in each case corresponds to a row of Table C.

Table 868

25 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes NHS(=O)₂CF₃, and A in each case corresponds to a row of Table C.

Table 869

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes NHC(=O)CF₃, and A in each case corresponds to a row of Table C.

30 Table 870

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OCH₂CN, and A in each case corresponds to a row of Table C.

Table 871

35 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OCH₂NO₂, and A in each case corresponds to a row of Table C.

Table 872

40 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes cyclopropyloxy, and A in each case corresponds to a row of Table C.

Table 873

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₂OCHF₂, and A in each case corresponds to a row of Table C.

Table 874

- 5 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₂S(=O)₂CHF₂, and A in each case corresponds to a row of Table C.

Table 875

- 10 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH=NOCH₃, and A in each case corresponds to a row of Table C.

Table 876

- 15 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH=NOCH₂CH₃, and A in each case corresponds to a row of Table C.

Table 877

- 20 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH=NOCH(CH₃)₂ and A in each case corresponds to a row of Table C.

Table 878

- 25 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH=NOC(CH₃)₃, and A in each case corresponds to a row of Table C.

Table 879

- 30 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes C(CH₃)=NOCH₃, and A in each case corresponds to a row of Table C.

Table 880

- 35 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes C(CH₃)=NOCH₂CH₃, and A in each case corresponds to a row of Table C.

Table 881

- 40 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes C(CH₃)=NOCH(CH₃)₂, and A in each case corresponds to a row of Table C.

Table 882

- Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes C(CH₃)=NOC(CH₃)₃, and A in each case corresponds to a row of Table C.

Table C

No.	A	R ^e	R ^f
IA-139	$\begin{array}{c} \text{—N=S} \begin{array}{l} \nearrow \text{R}^e \\ \searrow \text{R}^f \end{array} \\ \text{A}^{1.1} \end{array}$	CH ₃	CH ₃
IA-140	A ^{1.1}	CH ₂ CH ₃	CH ₃
IA-141	A ^{1.1}	CH=CH ₂	CH ₃
IA-142	A ^{1.1}	CH ₂ CH ₂ CH ₃	CH ₃
IA-143	A ^{1.1}	CH(CH ₃) ₂	CH ₃
IA-144	A ^{1.1}	CH ₂ CH ₂ CH ₂ CH ₃	CH ₃
IA-145	A ^{1.1}	C(CH ₃) ₃	CH ₃
IA-146	A ^{1.1}	CH ₂ CH(CH ₃) ₂	CH ₃
IA-147	A ^{1.1}	CH(CH ₃)CH ₂ CH ₃	CH ₃
IA-148	A ^{1.1}	CH ₂ CHCH ₂	CH ₃
IA-149	A ^{1.1}	CH ₂ CCH	CH ₃
IA-150	A ^{1.1}	CH(CH ₃)CH=CH ₂	CH ₃
IA-151	A ^{1.1}	CHF ₂	CH ₃
IA-152	A ^{1.1}	CH ₂ Cl	CH ₃
IA-153	A ^{1.1}	CH ₂ CH ₂ CN	CH ₃
IA-154	A ^{1.1}	CH ₂ CH ₂ Cl	CH ₃
IA-155	A ^{1.1}	CH ₂ CH ₂ OH	CH ₃
IA-156	A ^{1.1}	CH ₂ CH ₂ CH ₂ OH	CH ₃
IA-157	A ^{1.1}	CH ₂ CH(OH)CH ₂ OH	CH ₃
IA-158	A ^{1.1}	CH ₂ CH(OCH ₃) ₂	CH ₃
IA-159	A ^{1.1}	CH ₂ SCH ₃	CH ₃
IA-160	A ^{1.1}	(CH ₂) ₃ SCH ₃	CH ₃
IA-161	A ^{1.1}	CH ₂ S(=O)CH ₃	CH ₃
IA-162	A ^{1.1}	CH ₂ S(=O) ₂ CH ₃	CH ₃
IA-163	A ^{1.1}	CH ₂ C(=O)CH ₃	CH ₃
IA-164	A ^{1.1}	CH ₂ C(=O)CH ₂ CH ₃	CH ₃
IA-165	A ^{1.1}	CH ₂ COOH	CH ₃
IA-166	A ^{1.1}	CH ₂ COOCH ₃	CH ₃
IA-167	A ^{1.1}	CH ₂ COOCH ₂ CH ₃	CH ₃

No.	A	R ^e	R ^f
IA-168	A ^{1.1}	cyclo-C ₃ H ₅	CH ₃
IA-169	A ^{1.1}	cyclo-C ₄ H ₇	CH ₃
IA-170	A ^{1.1}	cyclo-C ₅ H ₉	CH ₃
IA-171	A ^{1.1}	cyclo-C ₆ H ₁₁	CH ₃
IA-172	A ^{1.1}	C ₆ H ₅	CH ₃
IA-173	A ^{1.1}	CH ₂ CH ₃	CH ₂ CH ₃
IA-174	A ^{1.1}	CH=CH ₂	CH ₂ CH ₃
IA-175	A ^{1.1}	CH ₂ CH ₂ CH ₃	CH ₂ CH ₃
IA-176	A ^{1.1}	CH(CH ₃) ₂	CH ₂ CH ₃
IA-177	A ^{1.1}	CH ₂ CH ₂ CH ₂ CH ₃	CH ₂ CH ₃
IA-178	A ^{1.1}	C(CH ₃) ₃	CH ₂ CH ₃
IA-179	A ^{1.1}	CH ₂ CH(CH ₃) ₂	CH ₂ CH ₃
IA-180	A ^{1.1}	CH(CH ₃)CH ₂ CH ₃	CH ₂ CH ₃
IA-181	A ^{1.1}	CH ₂ CHCH ₂	CH ₂ CH ₃
IA-182	A ^{1.1}	CH ₂ CCH	CH ₂ CH ₃
IA-183	A ^{1.1}	CH(CH ₃)CH=CH ₂	CH ₂ CH ₃
IA-184	A ^{1.1}	CHF ₂	CH ₂ CH ₃
IA-185	A ^{1.1}	CH ₂ Cl	CH ₂ CH ₃
IA-186	A ^{1.1}	CH ₂ CH ₂ CN	CH ₂ CH ₃
IA-187	A ^{1.1}	CH ₂ CH ₂ Cl	CH ₂ CH ₃
IA-188	A ^{1.1}	CH ₂ CH ₂ OH	CH ₂ CH ₃
IA-189	A ^{1.1}	CH ₂ CH ₂ CH ₂ OH	CH ₂ CH ₃
IA-190	A ^{1.1}	CH ₂ CH(OH)CH ₂ OH	CH ₂ CH ₃
IA-191	A ^{1.1}	CH ₂ CH(OCH ₃) ₂	CH ₂ CH ₃
IA-192	A ^{1.1}	CH ₂ SCH ₃	CH ₂ CH ₃
IA-193	A ^{1.1}	(CH ₂) ₃ SCH ₃	CH ₂ CH ₃
IA-194	A ^{1.1}	CH ₂ S(=O)CH ₃	CH ₂ CH ₃
IA-195	A ^{1.1}	CH ₂ S(=O) ₂ CH ₃	CH ₂ CH ₃
IA-196	A ^{1.1}	CH ₂ C(=O)CH ₃	CH ₂ CH ₃
IA-197	A ^{1.1}	CH ₂ C(=O)CH ₂ CH ₃	CH ₂ CH ₃
IA-198	A ^{1.1}	CH ₂ COOH	CH ₂ CH ₃
IA-199	A ^{1.1}	CH ₂ COOCH ₃	CH ₂ CH ₃

No.	A	R ^e	R ^f
IA-200	A ^{1.1}	CH ₂ COOCH ₂ CH ₃	CH ₂ CH ₃
IA-201	A ^{1.1}	cyclo-C ₃ H ₅	CH ₂ CH ₃
IA-202	A ^{1.1}	cyclo-C ₄ H ₇	CH ₂ CH ₃
IA-203	A ^{1.1}	cyclo-C ₅ H ₉	CH ₂ CH ₃
IA-204	A ^{1.1}	cyclo-C ₆ H ₁₁	CH ₂ CH ₃
IA-205	A ^{1.1}	C ₆ H ₅	CH ₂ CH ₃
IA-206	A ^{1.1}	CH=CH ₂	CH=CH ₂
IA-207	A ^{1.1}	CH ₂ CH ₂ CH ₃	CH=CH ₂
IA-208	A ^{1.1}	CH(CH ₃) ₂	CH=CH ₂
IA-209	A ^{1.1}	CH ₂ CH ₂ CH ₂ CH ₃	CH=CH ₂
IA-210	A ^{1.1}	C(CH ₃) ₃	CH=CH ₂
IA-211	A ^{1.1}	CH ₂ CH(CH ₃) ₂	CH=CH ₂
IA-212	A ^{1.1}	CH(CH ₃)CH ₂ CH ₃	CH=CH ₂
IA-213	A ^{1.1}	CH ₂ CHCH ₂	CH=CH ₂
IA-214	A ^{1.1}	CH ₂ CCH	CH=CH ₂
IA-215	A ^{1.1}	CH(CH ₃)CH=CH ₂	CH=CH ₂
IA-216	A ^{1.1}	CHF ₂	CH=CH ₂
IA-217	A ^{1.1}	CH ₂ Cl	CH=CH ₂
IA-218	A ^{1.1}	CH ₂ CH ₂ CN	CH=CH ₂
IA-219	A ^{1.1}	CH ₂ CH ₂ Cl	CH=CH ₂
IA-220	A ^{1.1}	CH ₂ CH ₂ OH	CH=CH ₂
IA-221	A ^{1.1}	CH ₂ CH ₂ CH ₂ OH	CH=CH ₂
IA-222	A ^{1.1}	CH ₂ CH(OH)CH ₂ OH	CH=CH ₂
IA-223	A ^{1.1}	CH ₂ CH(OCH ₃) ₂	CH=CH ₂
IA-224	A ^{1.1}	CH ₂ SCH ₃	CH=CH ₂
IA-225	A ^{1.1}	(CH ₂) ₃ SCH ₃	CH=CH ₂
IA-226	A ^{1.1}	CH ₂ S(=O)CH ₃	CH=CH ₂
IA-227	A ^{1.1}	CH ₂ S(=O) ₂ CH ₃	CH=CH ₂
IA-228	A ^{1.1}	CH ₂ C(=O)CH ₃	CH=CH ₂
IA-229	A ^{1.1}	CH ₂ C(=O)CH ₂ CH ₃	CH=CH ₂
IA-230	A ^{1.1}	CH ₂ COOH	CH=CH ₂
IA-231	A ^{1.1}	CH ₂ COOCH ₃	CH=CH ₂

No.	A	R ^e	R ^f
IA-232	A ^{1.1}	CH ₂ COOCH ₂ CH ₃	CH=CH ₂
IA-233	A ^{1.1}	cyclo-C ₃ H ₅	CH=CH ₂
IA-234	A ^{1.1}	cyclo-C ₄ H ₇	CH=CH ₂
IA-235	A ^{1.1}	cyclo-C ₅ H ₉	CH=CH ₂
IA-236	A ^{1.1}	cyclo-C ₆ H ₁₁	CH=CH ₂
IA-237	A ^{1.1}	C ₆ H ₅	CH=CH ₂
IA-238	A ^{1.1}	CH ₂ CH ₂ CH ₃	CH ₂ CH ₂ CH ₃
IA-239	A ^{1.1}	CH(CH ₃) ₂	CH ₂ CH ₂ CH ₃
IA-240	A ^{1.1}	CH ₂ CH ₂ CH ₂ CH ₃	CH ₂ CH ₂ CH ₃
IA-241	A ^{1.1}	C(CH ₃) ₃	CH ₂ CH ₂ CH ₃
IA-242	A ^{1.1}	CH ₂ CH(CH ₃) ₂	CH ₂ CH ₂ CH ₃
IA-243	A ^{1.1}	CH(CH ₃)CH ₂ CH ₃	CH ₂ CH ₂ CH ₃
IA-244	A ^{1.1}	CH ₂ CHCH ₂	CH ₂ CH ₂ CH ₃
IA-245	A ^{1.1}	CH ₂ CCH	CH ₂ CH ₂ CH ₃
IA-246	A ^{1.1}	CH(CH ₃)CH=CH ₂	CH ₂ CH ₂ CH ₃
IA-247	A ^{1.1}	CHF ₂	CH ₂ CH ₂ CH ₃
IA-248	A ^{1.1}	CH ₂ Cl	CH ₂ CH ₂ CH ₃
IA-249	A ^{1.1}	CH ₂ CH ₂ CN	CH ₂ CH ₂ CH ₃
IA-250	A ^{1.1}	CH ₂ CH ₂ Cl	CH ₂ CH ₂ CH ₃
IA-251	A ^{1.1}	CH ₂ CH ₂ OH	CH ₂ CH ₂ CH ₃
IA-252	A ^{1.1}	CH ₂ CH ₂ CH ₂ OH	CH ₂ CH ₂ CH ₃
IA-253	A ^{1.1}	CH ₂ CH(OH)CH ₂ OH	CH ₂ CH ₂ CH ₃
IA-254	A ^{1.1}	CH ₂ CH(OCH ₃) ₂	CH ₂ CH ₂ CH ₃
IA-255	A ^{1.1}	CH ₂ SCH ₃	CH ₂ CH ₂ CH ₃
IA-256	A ^{1.1}	(CH ₂) ₃ SCH ₃	CH ₂ CH ₂ CH ₃
IA-257	A ^{1.1}	CH ₂ S(=O)CH ₃	CH ₂ CH ₂ CH ₃
IA-258	A ^{1.1}	CH ₂ S(=O) ₂ CH ₃	CH ₂ CH ₂ CH ₃
IA-259	A ^{1.1}	CH ₂ C(=O)CH ₃	CH ₂ CH ₂ CH ₃
IA-260	A ^{1.1}	CH ₂ C(=O)CH ₂ CH ₃	CH ₂ CH ₂ CH ₃
IA-261	A ^{1.1}	CH ₂ COOH	CH ₂ CH ₂ CH ₃
IA-262	A ^{1.1}	CH ₂ COOCH ₃	CH ₂ CH ₂ CH ₃
IA-263	A ^{1.1}	CH ₂ COOCH ₂ CH ₃	CH ₂ CH ₂ CH ₃

No.	A	R ^e	R ^f
IA-264	A ^{1.1}	cyclo-C ₃ H ₅	CH ₂ CH ₂ CH ₃
IA-265	A ^{1.1}	cyclo-C ₄ H ₇	CH ₂ CH ₂ CH ₃
IA-266	A ^{1.1}	cyclo-C ₅ H ₉	CH ₂ CH ₂ CH ₃
IA-267	A ^{1.1}	cyclo-C ₆ H ₁₁	CH ₂ CH ₂ CH ₃
IA-268	A ^{1.1}	C ₆ H ₅	CH ₂ CH ₂ CH ₃
IA-269	A ^{1.1}	CH(CH ₃) ₂	CH(CH ₃) ₂
IA-270	A ^{1.1}	CH ₂ CH ₂ CH ₂ CH ₃	CH(CH ₃) ₂
IA-271	A ^{1.1}	C(CH ₃) ₃	CH(CH ₃) ₂
IA-272	A ^{1.1}	CH ₂ CH(CH ₃) ₂	CH(CH ₃) ₂
IA-273	A ^{1.1}	CH(CH ₃)CH ₂ CH ₃	CH(CH ₃) ₂
IA-274	A ^{1.1}	CH ₂ CHCH ₂	CH(CH ₃) ₂
IA-275	A ^{1.1}	CH ₂ CCH	CH(CH ₃) ₂
IA-276	A ^{1.1}	CH(CH ₃)CH=CH ₂	CH(CH ₃) ₂
IA-277	A ^{1.1}	CHF ₂	CH(CH ₃) ₂
IA-278	A ^{1.1}	CH ₂ Cl	CH(CH ₃) ₂
IA-279	A ^{1.1}	CH ₂ CH ₂ CN	CH(CH ₃) ₂
IA-280	A ^{1.1}	CH ₂ CH ₂ Cl	CH(CH ₃) ₂
IA-281	A ^{1.1}	CH ₂ CH ₂ OH	CH(CH ₃) ₂
IA-282	A ^{1.1}	CH ₂ CH ₂ CH ₂ OH	CH(CH ₃) ₂
IA-283	A ^{1.1}	CH ₂ CH(OH)CH ₂ OH	CH(CH ₃) ₂
IA-284	A ^{1.1}	CH ₂ CH(OCH ₃) ₂	CH(CH ₃) ₂
IA-285	A ^{1.1}	CH ₂ SCH ₃	CH(CH ₃) ₂
IA-286	A ^{1.1}	(CH ₂) ₃ SCH ₃	CH(CH ₃) ₂
IA-287	A ^{1.1}	CH ₂ S(=O)CH ₃	CH(CH ₃) ₂
IA-288	A ^{1.1}	CH ₂ S(=O) ₂ CH ₃	CH(CH ₃) ₂
IA-289	A ^{1.1}	CH ₂ C(=O)CH ₃	CH(CH ₃) ₂
IA-290	A ^{1.1}	CH ₂ C(=O)CH ₂ CH ₃	CH(CH ₃) ₂
IA-291	A ^{1.1}	CH ₂ COOH	CH(CH ₃) ₂
IA-292	A ^{1.1}	CH ₂ COOCH ₃	CH(CH ₃) ₂
IA-293	A ^{1.1}	CH ₂ COOCH ₂ CH ₃	CH(CH ₃) ₂
IA-294	A ^{1.1}	cyclo-C ₃ H ₅	CH(CH ₃) ₂
IA-295	A ^{1.1}	cyclo-C ₄ H ₇	CH(CH ₃) ₂

No.	A	R ^e	R ^f
IA-296	A ^{1.1}	cyclo-C ₅ H ₉	CH(CH ₃) ₂
IA-297	A ^{1.1}	cyclo-C ₆ H ₁₁	CH(CH ₃) ₂
IA-298	A ^{1.1}	C ₆ H ₅	CH(CH ₃) ₂
IA-299	A ^{1.1}	CH ₂ CH ₂ CH ₂ CH ₃	CH ₂ CH ₂ CH ₂ CH ₃
IA-300	A ^{1.1}	C(CH ₃) ₃	CH ₂ CH ₂ CH ₂ CH ₃
IA-301	A ^{1.1}	CH ₂ CH(CH ₃) ₂	CH ₂ CH ₂ CH ₂ CH ₃
IA-302	A ^{1.1}	CH(CH ₃)CH ₂ CH ₃	CH ₂ CH ₂ CH ₂ CH ₃
IA-303	A ^{1.1}	CH ₂ CHCH ₂	CH ₂ CH ₂ CH ₂ CH ₃
IA-304	A ^{1.1}	CH ₂ CCH	CH ₂ CH ₂ CH ₂ CH ₃
IA-305	A ^{1.1}	CH(CH ₃)CH=CH ₂	CH ₂ CH ₂ CH ₂ CH ₃
IA-306	A ^{1.1}	CHF ₂	CH ₂ CH ₂ CH ₂ CH ₃
IA-307	A ^{1.1}	CH ₂ Cl	CH ₂ CH ₂ CH ₂ CH ₃
IA-308	A ^{1.1}	CH ₂ CH ₂ CN	CH ₂ CH ₂ CH ₂ CH ₃
IA-309	A ^{1.1}	CH ₂ CH ₂ Cl	CH ₂ CH ₂ CH ₂ CH ₃
IA-310	A ^{1.1}	CH ₂ CH ₂ OH	CH ₂ CH ₂ CH ₂ CH ₃
IA-311	A ^{1.1}	CH ₂ CH ₂ CH ₂ OH	CH ₂ CH ₂ CH ₂ CH ₃
IA-312	A ^{1.1}	CH ₂ CH(OH)CH ₂ OH	CH ₂ CH ₂ CH ₂ CH ₃
IA-313	A ^{1.1}	CH ₂ CH(OCH ₃) ₂	CH ₂ CH ₂ CH ₂ CH ₃
IA-314	A ^{1.1}	CH ₂ SCH ₃	CH ₂ CH ₂ CH ₂ CH ₃
IA-315	A ^{1.1}	(CH ₂) ₃ SCH ₃	CH ₂ CH ₂ CH ₂ CH ₃
IA-316	A ^{1.1}	CH ₂ S(=O)CH ₃	CH ₂ CH ₂ CH ₂ CH ₃
IA-317	A ^{1.1}	CH ₂ S(=O) ₂ CH ₃	CH ₂ CH ₂ CH ₂ CH ₃
IA-318	A ^{1.1}	CH ₂ C(=O)CH ₃	CH ₂ CH ₂ CH ₂ CH ₃
IA-319	A ^{1.1}	CH ₂ C(=O)CH ₂ CH ₃	CH ₂ CH ₂ CH ₂ CH ₃
IA-320	A ^{1.1}	CH ₂ COOH	CH ₂ CH ₂ CH ₂ CH ₃
IA-321	A ^{1.1}	CH ₂ COOCH ₃	CH ₂ CH ₂ CH ₂ CH ₃
IA-322	A ^{1.1}	CH ₂ COOCH ₂ CH ₃	CH ₂ CH ₂ CH ₂ CH ₃
IA-323	A ^{1.1}	cyclo-C ₃ H ₅	CH ₂ CH ₂ CH ₂ CH ₃
IA-324	A ^{1.1}	cyclo-C ₄ H ₇	CH ₂ CH ₂ CH ₂ CH ₃
IA-325	A ^{1.1}	cyclo-C ₅ H ₉	CH ₂ CH ₂ CH ₂ CH ₃
IA-326	A ^{1.1}	cyclo-C ₆ H ₁₁	CH ₂ CH ₂ CH ₂ CH ₃
IA-327	A ^{1.1}	C ₆ H ₅	CH ₂ CH ₂ CH ₂ CH ₃

No.	A	R ^e	R ^f
IA-328	A ^{1.1}	C(CH ₃) ₃	C(CH ₃) ₃
IA-329	A ^{1.1}	CH ₂ CH(CH ₃) ₂	C(CH ₃) ₃
IA-330	A ^{1.1}	CH(CH ₃)CH ₂ CH ₃	C(CH ₃) ₃
IA-331	A ^{1.1}	CH ₂ CHCH ₂	C(CH ₃) ₃
IA-332	A ^{1.1}	CH ₂ CCH	C(CH ₃) ₃
IA-333	A ^{1.1}	CH(CH ₃)CH=CH ₂	C(CH ₃) ₃
IA-334	A ^{1.1}	CHF ₂	C(CH ₃) ₃
IA-335	A ^{1.1}	CH ₂ Cl	C(CH ₃) ₃
IA-336	A ^{1.1}	CH ₂ CH ₂ CN	C(CH ₃) ₃
IA-337	A ^{1.1}	CH ₂ CH ₂ Cl	C(CH ₃) ₃
IA-338	A ^{1.1}	CH ₂ CH ₂ OH	C(CH ₃) ₃
IA-339	A ^{1.1}	CH ₂ CH ₂ CH ₂ OH	C(CH ₃) ₃
IA-340	A ^{1.1}	CH ₂ CH(OH)CH ₂ OH	C(CH ₃) ₃
IA-341	A ^{1.1}	CH ₂ CH(OCH ₃) ₂	C(CH ₃) ₃
IA-342	A ^{1.1}	CH ₂ SCH ₃	C(CH ₃) ₃
IA-343	A ^{1.1}	(CH ₂) ₃ SCH ₃	C(CH ₃) ₃
IA-344	A ^{1.1}	CH ₂ S(=O)CH ₃	C(CH ₃) ₃
IA-345	A ^{1.1}	CH ₂ S(=O) ₂ CH ₃	C(CH ₃) ₃
IA-346	A ^{1.1}	CH ₂ C(=O)CH ₃	C(CH ₃) ₃
IA-347	A ^{1.1}	CH ₂ C(=O)CH ₂ CH ₃	C(CH ₃) ₃
IA-348	A ^{1.1}	CH ₂ COOH	C(CH ₃) ₃
IA-349	A ^{1.1}	CH ₂ COOCH ₃	C(CH ₃) ₃
IA-350	A ^{1.1}	CH ₂ COOCH ₂ CH ₃	C(CH ₃) ₃
IA-351	A ^{1.1}	cyclo-C ₃ H ₅	C(CH ₃) ₃
IA-352	A ^{1.1}	cyclo-C ₄ H ₇	C(CH ₃) ₃
IA-353	A ^{1.1}	cyclo-C ₅ H ₉	C(CH ₃) ₃
IA-354	A ^{1.1}	cyclo-C ₆ H ₁₁	C(CH ₃) ₃
IA-355	A ^{1.1}	C ₆ H ₅	C(CH ₃) ₃
IA-356	A ^{1.1}	CH ₂ CH(CH ₃) ₂	CH ₂ CH(CH ₃) ₂
IA-357	A ^{1.1}	CH(CH ₃)CH ₂ CH ₃	CH ₂ CH(CH ₃) ₂
IA-358	A ^{1.1}	CH ₂ CHCH ₂	CH ₂ CH(CH ₃) ₂
IA-359	A ^{1.1}	CH ₂ CCH	CH ₂ CH(CH ₃) ₂

No.	A	R ^e	R ^f
IA-360	A ^{1.1}	CH(CH ₃)CH=CH ₂	CH ₂ CH(CH ₃) ₂
IA-361	A ^{1.1}	CHF ₂	CH ₂ CH(CH ₃) ₂
IA-362	A ^{1.1}	CH ₂ Cl	CH ₂ CH(CH ₃) ₂
IA-363	A ^{1.1}	CH ₂ CH ₂ CN	CH ₂ CH(CH ₃) ₂
IA-364	A ^{1.1}	CH ₂ CH ₂ Cl	CH ₂ CH(CH ₃) ₂
IA-365	A ^{1.1}	CH ₂ CH ₂ OH	CH ₂ CH(CH ₃) ₂
IA-366	A ^{1.1}	CH ₂ CH ₂ CH ₂ OH	CH ₂ CH(CH ₃) ₂
IA-367	A ^{1.1}	CH ₂ CH(OH)CH ₂ OH	CH ₂ CH(CH ₃) ₂
IA-368	A ^{1.1}	CH ₂ CH(OCH ₃) ₂	CH ₂ CH(CH ₃) ₂
IA-369	A ^{1.1}	CH ₂ SCH ₃	CH ₂ CH(CH ₃) ₂
IA-370	A ^{1.1}	(CH ₂) ₃ SCH ₃	CH ₂ CH(CH ₃) ₂
IA-371	A ^{1.1}	CH ₂ S(=O)CH ₃	CH ₂ CH(CH ₃) ₂
IA-372	A ^{1.1}	CH ₂ S(=O) ₂ CH ₃	CH ₂ CH(CH ₃) ₂
IA-373	A ^{1.1}	CH ₂ C(=O)CH ₃	CH ₂ CH(CH ₃) ₂
IA-374	A ^{1.1}	CH ₂ C(=O)CH ₂ CH ₃	CH ₂ CH(CH ₃) ₂
IA-375	A ^{1.1}	CH ₂ COOH	CH ₂ CH(CH ₃) ₂
IA-376	A ^{1.1}	CH ₂ COOCH ₃	CH ₂ CH(CH ₃) ₂
IA-377	A ^{1.1}	CH ₂ COOCH ₂ CH ₃	CH ₂ CH(CH ₃) ₂
IA-378	A ^{1.1}	cyclo-C ₃ H ₅	CH ₂ CH(CH ₃) ₂
IA-379	A ^{1.1}	cyclo-C ₄ H ₇	CH ₂ CH(CH ₃) ₂
IA-380	A ^{1.1}	cyclo-C ₅ H ₉	CH ₂ CH(CH ₃) ₂
IA-381	A ^{1.1}	cyclo-C ₆ H ₁₁	CH ₂ CH(CH ₃) ₂
IA-382	A ^{1.1}	C ₆ H ₅	CH ₂ CH(CH ₃) ₂
IA-383	A ^{1.1}	CH(CH ₃)CH ₂ CH ₃	CH(CH ₃)CH ₂ CH ₃
IA-384	A ^{1.1}	CH ₂ CHCH ₂	CH(CH ₃)CH ₂ CH ₃
IA-385	A ^{1.1}	CH ₂ CCH	CH(CH ₃)CH ₂ CH ₃
IA-386	A ^{1.1}	CH(CH ₃)CH=CH ₂	CH(CH ₃)CH ₂ CH ₃
IA-387	A ^{1.1}	CHF ₂	CH(CH ₃)CH ₂ CH ₃
IA-388	A ^{1.1}	CH ₂ Cl	CH(CH ₃)CH ₂ CH ₃
IA-389	A ^{1.1}	CH ₂ CH ₂ CN	CH(CH ₃)CH ₂ CH ₃
IA-390	A ^{1.1}	CH ₂ CH ₂ Cl	CH(CH ₃)CH ₂ CH ₃
IA-391	A ^{1.1}	CH ₂ CH ₂ OH	CH(CH ₃)CH ₂ CH ₃

No.	A	R ^e	R ^f
IA-392	A ^{1.1}	CH ₂ CH ₂ CH ₂ OH	CH(CH ₃)CH ₂ CH ₃
IA-393	A ^{1.1}	CH ₂ CH(OH)CH ₂ OH	CH(CH ₃)CH ₂ CH ₃
IA-394	A ^{1.1}	CH ₂ CH(OCH ₃) ₂	CH(CH ₃)CH ₂ CH ₃
IA-395	A ^{1.1}	CH ₂ SCH ₃	CH(CH ₃)CH ₂ CH ₃
IA-396	A ^{1.1}	(CH ₂) ₃ SCH ₃	CH(CH ₃)CH ₂ CH ₃
IA-397	A ^{1.1}	CH ₂ S(=O)CH ₃	CH(CH ₃)CH ₂ CH ₃
IA-398	A ^{1.1}	CH ₂ S(=O) ₂ CH ₃	CH(CH ₃)CH ₂ CH ₃
IA-399	A ^{1.1}	CH ₂ C(=O)CH ₃	CH(CH ₃)CH ₂ CH ₃
IA-400	A ^{1.1}	CH ₂ C(=O)CH ₂ CH ₃	CH(CH ₃)CH ₂ CH ₃
IA-401	A ^{1.1}	CH ₂ COOH	CH(CH ₃)CH ₂ CH ₃
IA-402	A ^{1.1}	CH ₂ COOCH ₃	CH(CH ₃)CH ₂ CH ₃
IA-403	A ^{1.1}	CH ₂ COOCH ₂ CH ₃	CH(CH ₃)CH ₂ CH ₃
IA-404	A ^{1.1}	cyclo-C ₃ H ₅	CH(CH ₃)CH ₂ CH ₃
IA-405	A ^{1.1}	cyclo-C ₄ H ₇	CH(CH ₃)CH ₂ CH ₃
IA-406	A ^{1.1}	cyclo-C ₅ H ₉	CH(CH ₃)CH ₂ CH ₃
IA-407	A ^{1.1}	cyclo-C ₆ H ₁₁	CH(CH ₃)CH ₂ CH ₃
IA-408	A ^{1.1}	C ₆ H ₅	CH(CH ₃)CH ₂ CH ₃
IA-409	A ^{1.1}	CH ₂ CHCH ₂	CH ₂ CHCH ₂
IA-410	A ^{1.1}	CH ₂ CCH	CH ₂ CHCH ₂
IA-411	A ^{1.1}	CH(CH ₃)CH=CH ₂	CH ₂ CHCH ₂
IA-412	A ^{1.1}	CHF ₂	CH ₂ CHCH ₂
IA-413	A ^{1.1}	CH ₂ Cl	CH ₂ CHCH ₂
IA-414	A ^{1.1}	CH ₂ CH ₂ CN	CH ₂ CHCH ₂
IA-415	A ^{1.1}	CH ₂ CH ₂ Cl	CH ₂ CHCH ₂
IA-416	A ^{1.1}	CH ₂ CH ₂ OH	CH ₂ CHCH ₂
IA-417	A ^{1.1}	CH ₂ CH ₂ CH ₂ OH	CH ₂ CHCH ₂
IA-418	A ^{1.1}	CH ₂ CH(OH)CH ₂ OH	CH ₂ CHCH ₂
IA-419	A ^{1.1}	CH ₂ CH(OCH ₃) ₂	CH ₂ CHCH ₂
IA-420	A ^{1.1}	CH ₂ SCH ₃	CH ₂ CHCH ₂
IA-421	A ^{1.1}	(CH ₂) ₃ SCH ₃	CH ₂ CHCH ₂
IA-422	A ^{1.1}	CH ₂ S(=O)CH ₃	CH ₂ CHCH ₂
IA-423	A ^{1.1}	CH ₂ S(=O) ₂ CH ₃	CH ₂ CHCH ₂

No.	A	R ^e	R ^f
IA-424	A ^{1.1}	CH ₂ C(=O)CH ₃	CH ₂ CHCH ₂
IA-425	A ^{1.1}	CH ₂ C(=O)CH ₂ CH ₃	CH ₂ CHCH ₂
IA-426	A ^{1.1}	CH ₂ COOH	CH ₂ CHCH ₂
IA-427	A ^{1.1}	CH ₂ COOCH ₃	CH ₂ CHCH ₂
IA-428	A ^{1.1}	CH ₂ COOCH ₂ CH ₃	CH ₂ CHCH ₂
IA-429	A ^{1.1}	cyclo-C ₃ H ₅	CH ₂ CHCH ₂
IA-430	A ^{1.1}	cyclo-C ₄ H ₇	CH ₂ CHCH ₂
IA-431	A ^{1.1}	cyclo-C ₅ H ₉	CH ₂ CHCH ₂
IA-432	A ^{1.1}	cyclo-C ₆ H ₁₁	CH ₂ CHCH ₂
IA-433	A ^{1.1}	C ₆ H ₅	CH ₂ CHCH ₂
IA-434	A ^{1.1}	CH ₂ CCH	CH ₂ CCH
IA-435	A ^{1.1}	CH(CH ₃)CH=CH ₂	CH ₂ CCH
IA-436	A ^{1.1}	CHF ₂	CH ₂ CCH
IA-437	A ^{1.1}	CH ₂ Cl	CH ₂ CCH
IA-438	A ^{1.1}	CH ₂ CH ₂ CN	CH ₂ CCH
IA-439	A ^{1.1}	CH ₂ CH ₂ Cl	CH ₂ CCH
IA-440	A ^{1.1}	CH ₂ CH ₂ OH	CH ₂ CCH
IA-441	A ^{1.1}	CH ₂ CH ₂ CH ₂ OH	CH ₂ CCH
IA-442	A ^{1.1}	CH ₂ CH(OH)CH ₂ OH	CH ₂ CCH
IA-443	A ^{1.1}	CH ₂ CH(OCH ₃) ₂	CH ₂ CCH
IA-444	A ^{1.1}	CH ₂ SCH ₃	CH ₂ CCH
IA-445	A ^{1.1}	(CH ₂) ₃ SCH ₃	CH ₂ CCH
IA-446	A ^{1.1}	CH ₂ S(=O)CH ₃	CH ₂ CCH
IA-447	A ^{1.1}	CH ₂ S(=O) ₂ CH ₃	CH ₂ CCH
IA-448	A ^{1.1}	CH ₂ C(=O)CH ₃	CH ₂ CCH
IA-449	A ^{1.1}	CH ₂ C(=O)CH ₂ CH ₃	CH ₂ CCH
IA-450	A ^{1.1}	CH ₂ COOH	CH ₂ CCH
IA-451	A ^{1.1}	CH ₂ COOCH ₃	CH ₂ CCH
IA-452	A ^{1.1}	CH ₂ COOCH ₂ CH ₃	CH ₂ CCH
IA-453	A ^{1.1}	cyclo-C ₃ H ₅	CH ₂ CCH
IA-454	A ^{1.1}	cyclo-C ₄ H ₇	CH ₂ CCH
IA-455	A ^{1.1}	cyclo-C ₅ H ₉	CH ₂ CCH

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No.	A	R ^e	R ^f
IA-456	A ^{1.1}	cyclo-C ₆ H ₁₁	CH ₂ CCH
IA-457	A ^{1.1}	C ₆ H ₅	CH ₂ CCH
IA-458	A ^{1.1}	CH(CH ₃)CH=CH ₂	CH(CH ₃)CH=CH ₂
IA-459	A ^{1.1}	CHF ₂	CH(CH ₃)CH=CH ₂
IA-460	A ^{1.1}	CH ₂ Cl	CH(CH ₃)CH=CH ₂
IA-461	A ^{1.1}	CH ₂ CH ₂ CN	CH(CH ₃)CH=CH ₂
IA-462	A ^{1.1}	CH ₂ CH ₂ Cl	CH(CH ₃)CH=CH ₂
IA-463	A ^{1.1}	CH ₂ CH ₂ OH	CH(CH ₃)CH=CH ₂
IA-464	A ^{1.1}	CH ₂ CH ₂ CH ₂ OH	CH(CH ₃)CH=CH ₂
IA-465	A ^{1.1}	CH ₂ CH(OH)CH ₂ OH	CH(CH ₃)CH=CH ₂
IA-466	A ^{1.1}	CH ₂ CH(OCH ₃) ₂	CH(CH ₃)CH=CH ₂
IA-467	A ^{1.1}	CH ₂ SCH ₃	CH(CH ₃)CH=CH ₂
IA-468	A ^{1.1}	(CH ₂) ₃ SCH ₃	CH(CH ₃)CH=CH ₂
IA-469	A ^{1.1}	CH ₂ S(=O)CH ₃	CH(CH ₃)CH=CH ₂
IA-470	A ^{1.1}	CH ₂ S(=O) ₂ CH ₃	CH(CH ₃)CH=CH ₂
IA-471	A ^{1.1}	CH ₂ C(=O)CH ₃	CH(CH ₃)CH=CH ₂
IA-472	A ^{1.1}	CH ₂ C(=O)CH ₂ CH ₃	CH(CH ₃)CH=CH ₂
IA-473	A ^{1.1}	CH ₂ COOH	CH(CH ₃)CH=CH ₂
IA-474	A ^{1.1}	CH ₂ COOCH ₃	CH(CH ₃)CH=CH ₂
IA-475	A ^{1.1}	CH ₂ COOCH ₂ CH ₃	CH(CH ₃)CH=CH ₂
IA-476	A ^{1.1}	cyclo-C ₃ H ₅	CH(CH ₃)CH=CH ₂
IA-477	A ^{1.1}	cyclo-C ₄ H ₇	CH(CH ₃)CH=CH ₂
IA-478	A ^{1.1}	cyclo-C ₅ H ₉	CH(CH ₃)CH=CH ₂
IA-479	A ^{1.1}	cyclo-C ₆ H ₁₁	CH(CH ₃)CH=CH ₂
IA-480	A ^{1.1}	C ₆ H ₅	CH(CH ₃)CH=CH ₂
IA-481	A ^{1.1}	CHF ₂	CHF ₂
IA-482	A ^{1.1}	CH ₂ Cl	CHF ₂
IA-483	A ^{1.1}	CH ₂ CH ₂ CN	CHF ₂
IA-484	A ^{1.1}	CH ₂ CH ₂ Cl	CHF ₂
IA-485	A ^{1.1}	CH ₂ CH ₂ OH	CHF ₂
IA-486	A ^{1.1}	CH ₂ CH ₂ CH ₂ OH	CHF ₂
IA-487	A ^{1.1}	CH ₂ CH(OH)CH ₂ OH	CHF ₂

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No.	A	R ^e	R ^f
IA-488	A ^{1.1}	CH ₂ CH(OCH ₃) ₂	CHF ₂
IA-489	A ^{1.1}	CH ₂ SCH ₃	CHF ₂
IA-490	A ^{1.1}	(CH ₂) ₃ SCH ₃	CHF ₂
IA-491	A ^{1.1}	CH ₂ S(=O)CH ₃	CHF ₂
IA-492	A ^{1.1}	CH ₂ S(=O) ₂ CH ₃	CHF ₂
IA-493	A ^{1.1}	CH ₂ C(=O)CH ₃	CHF ₂
IA-494	A ^{1.1}	CH ₂ C(=O)CH ₂ CH ₃	CHF ₂
IA-495	A ^{1.1}	CH ₂ COOH	CHF ₂
IA-496	A ^{1.1}	CH ₂ COOCH ₃	CHF ₂
IA-497	A ^{1.1}	CH ₂ COOCH ₂ CH ₃	CHF ₂
IA-498	A ^{1.1}	cyclo-C ₃ H ₅	CHF ₂
IA-499	A ^{1.1}	cyclo-C ₄ H ₇	CHF ₂
IA-500	A ^{1.1}	cyclo-C ₅ H ₉	CHF ₂
IA-501	A ^{1.1}	cyclo-C ₆ H ₁₁	CHF ₂
IA-502	A ^{1.1}	C ₆ H ₅	CHF ₂
IA-503	A ^{1.1}	CH ₂ Cl	CH ₂ Cl
IA-504	A ^{1.1}	CH ₂ CH ₂ CN	CH ₂ Cl
IA-505	A ^{1.1}	CH ₂ CH ₂ Cl	CH ₂ Cl
IA-506	A ^{1.1}	CH ₂ CH ₂ OH	CH ₂ Cl
IA-507	A ^{1.1}	CH ₂ CH ₂ CH ₂ OH	CH ₂ Cl
IA-508	A ^{1.1}	CH ₂ CH(OH)CH ₂ OH	CH ₂ Cl
IA-509	A ^{1.1}	CH ₂ CH(OCH ₃) ₂	CH ₂ Cl
IA-510	A ^{1.1}	CH ₂ SCH ₃	CH ₂ Cl
IA-511	A ^{1.1}	(CH ₂) ₃ SCH ₃	CH ₂ Cl
IA-512	A ^{1.1}	CH ₂ S(=O)CH ₃	CH ₂ Cl
IA-513	A ^{1.1}	CH ₂ S(=O) ₂ CH ₃	CH ₂ Cl
IA-514	A ^{1.1}	CH ₂ C(=O)CH ₃	CH ₂ Cl
IA-515	A ^{1.1}	CH ₂ C(=O)CH ₂ CH ₃	CH ₂ Cl
IA-516	A ^{1.1}	CH ₂ COOH	CH ₂ Cl
IA-517	A ^{1.1}	CH ₂ COOCH ₃	CH ₂ Cl
IA-518	A ^{1.1}	CH ₂ COOCH ₂ CH ₃	CH ₂ Cl
IA-519	A ^{1.1}	cyclo-C ₃ H ₅	CH ₂ Cl

No.	A	R ^e	R ^f
IA-520	A ^{1.1}	cyclo-C ₄ H ₇	CH ₂ Cl
IA-521	A ^{1.1}	cyclo-C ₅ H ₉	CH ₂ Cl
IA-522	A ^{1.1}	cyclo-C ₆ H ₁₁	CH ₂ Cl
IA-523	A ^{1.1}	C ₆ H ₅	CH ₂ Cl
IA-524	A ^{1.1}	CH ₂ CH ₂ CN	CH ₂ CH ₂ CN
IA-525	A ^{1.1}	CH ₂ CH ₂ Cl	CH ₂ CH ₂ CN
IA-526	A ^{1.1}	CH ₂ CH ₂ OH	CH ₂ CH ₂ CN
IA-527	A ^{1.1}	CH ₂ CH ₂ CH ₂ OH	CH ₂ CH ₂ CN
IA-528	A ^{1.1}	CH ₂ CH(OH)CH ₂ OH	CH ₂ CH ₂ CN
IA-529	A ^{1.1}	CH ₂ CH(OCH ₃) ₂	CH ₂ CH ₂ CN
IA-530	A ^{1.1}	CH ₂ SCH ₃	CH ₂ CH ₂ CN
IA-531	A ^{1.1}	(CH ₂) ₃ SCH ₃	CH ₂ CH ₂ CN
IA-532	A ^{1.1}	CH ₂ S(=O)CH ₃	CH ₂ CH ₂ CN
IA-533	A ^{1.1}	CH ₂ S(=O) ₂ CH ₃	CH ₂ CH ₂ CN
IA-534	A ^{1.1}	CH ₂ C(=O)CH ₃	CH ₂ CH ₂ CN
IA-535	A ^{1.1}	CH ₂ C(=O)CH ₂ CH ₃	CH ₂ CH ₂ CN
IA-536	A ^{1.1}	CH ₂ COOH	CH ₂ CH ₂ CN
IA-537	A ^{1.1}	CH ₂ COOCH ₃	CH ₂ CH ₂ CN
IA-538	A ^{1.1}	CH ₂ COOCH ₂ CH ₃	CH ₂ CH ₂ CN
IA-539	A ^{1.1}	cyclo-C ₃ H ₅	CH ₂ CH ₂ CN
IA-540	A ^{1.1}	cyclo-C ₄ H ₇	CH ₂ CH ₂ CN
IA-541	A ^{1.1}	cyclo-C ₅ H ₉	CH ₂ CH ₂ CN
IA-542	A ^{1.1}	cyclo-C ₆ H ₁₁	CH ₂ CH ₂ CN
IA-543	A ^{1.1}	C ₆ H ₅	CH ₂ CH ₂ CN
IA-544	A ^{1.1}	CH ₂ CH ₂ Cl	CH ₂ CH ₂ Cl
IA-545	A ^{1.1}	CH ₂ CH ₂ OH	CH ₂ CH ₂ Cl
IA-546	A ^{1.1}	CH ₂ CH ₂ CH ₂ OH	CH ₂ CH ₂ Cl
IA-547	A ^{1.1}	CH ₂ CH(OH)CH ₂ OH	CH ₂ CH ₂ Cl
IA-548	A ^{1.1}	CH ₂ CH(OCH ₃) ₂	CH ₂ CH ₂ Cl
IA-549	A ^{1.1}	CH ₂ SCH ₃	CH ₂ CH ₂ Cl
IA-550	A ^{1.1}	(CH ₂) ₃ SCH ₃	CH ₂ CH ₂ Cl
IA-551	A ^{1.1}	CH ₂ S(=O)CH ₃	CH ₂ CH ₂ Cl

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No.	A	R ^e	R ^f
IA-552	A ^{1.1}	CH ₂ S(=O) ₂ CH ₃	CH ₂ CH ₂ Cl
IA-553	A ^{1.1}	CH ₂ C(=O)CH ₃	CH ₂ CH ₂ Cl
IA-554	A ^{1.1}	CH ₂ C(=O)CH ₂ CH ₃	CH ₂ CH ₂ Cl
IA-555	A ^{1.1}	CH ₂ COOH	CH ₂ CH ₂ Cl
IA-556	A ^{1.1}	CH ₂ COOCH ₃	CH ₂ CH ₂ Cl
IA-557	A ^{1.1}	CH ₂ COOCH ₂ CH ₃	CH ₂ CH ₂ Cl
IA-558	A ^{1.1}	cyclo-C ₃ H ₅	CH ₂ CH ₂ Cl
IA-559	A ^{1.1}	cyclo-C ₄ H ₇	CH ₂ CH ₂ Cl
IA-560	A ^{1.1}	cyclo-C ₅ H ₉	CH ₂ CH ₂ Cl
IA-561	A ^{1.1}	cyclo-C ₆ H ₁₁	CH ₂ CH ₂ Cl
IA-562	A ^{1.1}	C ₆ H ₅	CH ₂ CH ₂ Cl
IA-563	A ^{1.1}	CH ₂ CH ₂ OH	CH ₂ CH ₂ OH
IA-564	A ^{1.1}	CH ₂ CH ₂ CH ₂ OH	CH ₂ CH ₂ OH
IA-565	A ^{1.1}	CH ₂ CH(OH)CH ₂ OH	CH ₂ CH ₂ OH
IA-566	A ^{1.1}	CH ₂ CH(OCH ₃) ₂	CH ₂ CH ₂ OH
IA-567	A ^{1.1}	CH ₂ SCH ₃	CH ₂ CH ₂ OH
IA-568	A ^{1.1}	(CH ₂) ₃ SCH ₃	CH ₂ CH ₂ OH
IA-569	A ^{1.1}	CH ₂ S(=O)CH ₃	CH ₂ CH ₂ OH
IA-570	A ^{1.1}	CH ₂ S(=O) ₂ CH ₃	CH ₂ CH ₂ OH
IA-571	A ^{1.1}	CH ₂ C(=O)CH ₃	CH ₂ CH ₂ OH
IA-572	A ^{1.1}	CH ₂ C(=O)CH ₂ CH ₃	CH ₂ CH ₂ OH
IA-573	A ^{1.1}	CH ₂ COOH	CH ₂ CH ₂ OH
IA-574	A ^{1.1}	CH ₂ COOCH ₃	CH ₂ CH ₂ OH
IA-575	A ^{1.1}	CH ₂ COOCH ₂ CH ₃	CH ₂ CH ₂ OH
IA-576	A ^{1.1}	cyclo-C ₃ H ₅	CH ₂ CH ₂ OH
IA-577	A ^{1.1}	cyclo-C ₄ H ₇	CH ₂ CH ₂ OH
IA-578	A ^{1.1}	cyclo-C ₅ H ₉	CH ₂ CH ₂ OH
IA-579	A ^{1.1}	cyclo-C ₆ H ₁₁	CH ₂ CH ₂ OH
IA-580	A ^{1.1}	C ₆ H ₅	CH ₂ CH ₂ OH
IA-581	A ^{1.1}	CH ₂ CH ₂ CH ₂ OH	CH ₂ CH ₂ CH ₂ OH
IA-582	A ^{1.1}	CH ₂ CH(OH)CH ₂ OH	CH ₂ CH ₂ CH ₂ OH
IA-583	A ^{1.1}	CH ₂ CH(OCH ₃) ₂	CH ₂ CH ₂ CH ₂ OH

No.	A	R ^e	R ^f
IA-584	A ^{1.1}	CH ₂ SCH ₃	CH ₂ CH ₂ CH ₂ OH
IA-585	A ^{1.1}	(CH ₂) ₃ SCH ₃	CH ₂ CH ₂ CH ₂ OH
IA-586	A ^{1.1}	CH ₂ S(=O)CH ₃	CH ₂ CH ₂ CH ₂ OH
IA-587	A ^{1.1}	CH ₂ S(=O) ₂ CH ₃	CH ₂ CH ₂ CH ₂ OH
IA-588	A ^{1.1}	CH ₂ C(=O)CH ₃	CH ₂ CH ₂ CH ₂ OH
IA-589	A ^{1.1}	CH ₂ C(=O)CH ₂ CH ₃	CH ₂ CH ₂ CH ₂ OH
IA-590	A ^{1.1}	CH ₂ COOH	CH ₂ CH ₂ CH ₂ OH
IA-591	A ^{1.1}	CH ₂ COOCH ₃	CH ₂ CH ₂ CH ₂ OH
IA-592	A ^{1.1}	CH ₂ COOCH ₂ CH ₃	CH ₂ CH ₂ CH ₂ OH
IA-593	A ^{1.1}	cyclo-C ₃ H ₅	CH ₂ CH ₂ CH ₂ OH
IA-594	A ^{1.1}	cyclo-C ₄ H ₇	CH ₂ CH ₂ CH ₂ OH
IA-595	A ^{1.1}	cyclo-C ₅ H ₉	CH ₂ CH ₂ CH ₂ OH
IA-596	A ^{1.1}	cyclo-C ₆ H ₁₁	CH ₂ CH ₂ CH ₂ OH
IA-597	A ^{1.1}	C ₆ H ₅	CH ₂ CH ₂ CH ₂ OH
IA-598	A ^{1.1}	CH ₂ CH(OH)CH ₂ OH	CH ₂ CH(OH)CH ₂ OH
IA-599	A ^{1.1}	CH ₂ CH(OCH ₃) ₂	CH ₂ CH(OH)CH ₂ OH
IA-600	A ^{1.1}	CH ₂ SCH ₃	CH ₂ CH(OH)CH ₂ OH
IA-601	A ^{1.1}	(CH ₂) ₃ SCH ₃	CH ₂ CH(OH)CH ₂ OH
IA-602	A ^{1.1}	CH ₂ S(=O)CH ₃	CH ₂ CH(OH)CH ₂ OH
IA-603	A ^{1.1}	CH ₂ S(=O) ₂ CH ₃	CH ₂ CH(OH)CH ₂ OH
IA-604	A ^{1.1}	CH ₂ C(=O)CH ₃	CH ₂ CH(OH)CH ₂ OH
IA-605	A ^{1.1}	CH ₂ C(=O)CH ₂ CH ₃	CH ₂ CH(OH)CH ₂ OH
IA-606	A ^{1.1}	CH ₂ COOH	CH ₂ CH(OH)CH ₂ OH
IA-607	A ^{1.1}	CH ₂ COOCH ₃	CH ₂ CH(OH)CH ₂ OH
IA-608	A ^{1.1}	CH ₂ COOCH ₂ CH ₃	CH ₂ CH(OH)CH ₂ OH
IA-609	A ^{1.1}	cyclo-C ₃ H ₅	CH ₂ CH(OH)CH ₂ OH
IA-610	A ^{1.1}	cyclo-C ₄ H ₇	CH ₂ CH(OH)CH ₂ OH
IA-611	A ^{1.1}	cyclo-C ₅ H ₉	CH ₂ CH(OH)CH ₂ OH
IA-612	A ^{1.1}	cyclo-C ₆ H ₁₁	CH ₂ CH(OH)CH ₂ OH
IA-613	A ^{1.1}	C ₆ H ₅	CH ₂ CH(OH)CH ₂ OH
IA-614	A ^{1.1}	CH ₂ CH(OCH ₃) ₂	CH ₂ CH(OCH ₃) ₂
IA-615	A ^{1.1}	CH ₂ SCH ₃	CH ₂ CH(OCH ₃) ₂

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No.	A	R ^e	R ^f
IA-616	A ^{1.1}	(CH ₂) ₃ SCH ₃	CH ₂ CH(OCH ₃) ₂
IA-617	A ^{1.1}	CH ₂ S(=O)CH ₃	CH ₂ CH(OCH ₃) ₂
IA-618	A ^{1.1}	CH ₂ S(=O) ₂ CH ₃	CH ₂ CH(OCH ₃) ₂
IA-619	A ^{1.1}	CH ₂ C(=O)CH ₃	CH ₂ CH(OCH ₃) ₂
IA-620	A ^{1.1}	CH ₂ C(=O)CH ₂ CH ₃	CH ₂ CH(OCH ₃) ₂
IA-621	A ^{1.1}	CH ₂ COOH	CH ₂ CH(OCH ₃) ₂
IA-622	A ^{1.1}	CH ₂ COOCH ₃	CH ₂ CH(OCH ₃) ₂
IA-623	A ^{1.1}	CH ₂ COOCH ₂ CH ₃	CH ₂ CH(OCH ₃) ₂
IA-624	A ^{1.1}	cyclo-C ₃ H ₅	CH ₂ CH(OCH ₃) ₂
IA-625	A ^{1.1}	cyclo-C ₄ H ₇	CH ₂ CH(OCH ₃) ₂
IA-626	A ^{1.1}	cyclo-C ₅ H ₉	CH ₂ CH(OCH ₃) ₂
IA-627	A ^{1.1}	cyclo-C ₆ H ₁₁	CH ₂ CH(OCH ₃) ₂
IA-628	A ^{1.1}	C ₆ H ₅	CH ₂ CH(OCH ₃) ₂
IA-629	A ^{1.1}	CH ₂ SCH ₃	CH ₂ SCH ₃
IA-630	A ^{1.1}	(CH ₂) ₃ SCH ₃	CH ₂ SCH ₃
IA-631	A ^{1.1}	CH ₂ S(=O)CH ₃	CH ₂ SCH ₃
IA-632	A ^{1.1}	CH ₂ S(=O) ₂ CH ₃	CH ₂ SCH ₃
IA-633	A ^{1.1}	CH ₂ C(=O)CH ₃	CH ₂ SCH ₃
IA-634	A ^{1.1}	CH ₂ C(=O)CH ₂ CH ₃	CH ₂ SCH ₃
IA-635	A ^{1.1}	CH ₂ COOH	CH ₂ SCH ₃
IA-636	A ^{1.1}	CH ₂ COOCH ₃	CH ₂ SCH ₃
IA-637	A ^{1.1}	CH ₂ COOCH ₂ CH ₃	CH ₂ SCH ₃
IA-638	A ^{1.1}	cyclo-C ₃ H ₅	CH ₂ SCH ₃
IA-639	A ^{1.1}	cyclo-C ₄ H ₇	CH ₂ SCH ₃
IA-640	A ^{1.1}	cyclo-C ₅ H ₉	CH ₂ SCH ₃
IA-641	A ^{1.1}	cyclo-C ₆ H ₁₁	CH ₂ SCH ₃
IA-642	A ^{1.1}	C ₆ H ₅	CH ₂ SCH ₃
IA-643	A ^{1.1}	(CH ₂) ₃ SCH ₃	(CH ₂) ₃ SCH ₃
IA-644	A ^{1.1}	CH ₂ S(=O)CH ₃	(CH ₂) ₃ SCH ₃
IA-645	A ^{1.1}	CH ₂ S(=O) ₂ CH ₃	(CH ₂) ₃ SCH ₃
IA-646	A ^{1.1}	CH ₂ C(=O)CH ₃	(CH ₂) ₃ SCH ₃
IA-647	A ^{1.1}	CH ₂ C(=O)CH ₂ CH ₃	(CH ₂) ₃ SCH ₃

No.	A	R ^e	R ^f
IA-648	A ^{1.1}	CH ₂ COOH	(CH ₂) ₃ SCH ₃
IA-649	A ^{1.1}	CH ₂ COOCH ₃	(CH ₂) ₃ SCH ₃
IA-650	A ^{1.1}	CH ₂ COOCH ₂ CH ₃	(CH ₂) ₃ SCH ₃
IA-651	A ^{1.1}	cyclo-C ₃ H ₅	(CH ₂) ₃ SCH ₃
IA-652	A ^{1.1}	cyclo-C ₄ H ₇	(CH ₂) ₃ SCH ₃
IA-653	A ^{1.1}	cyclo-C ₅ H ₉	(CH ₂) ₃ SCH ₃
IA-654	A ^{1.1}	cyclo-C ₆ H ₁₁	(CH ₂) ₃ SCH ₃
IA-655	A ^{1.1}	C ₆ H ₅	(CH ₂) ₃ SCH ₃
IA-656	A ^{1.1}	CH ₂ S(=O)CH ₃	CH ₂ S(=O)CH ₃
IA-657	A ^{1.1}	CH ₂ S(=O) ₂ CH ₃	CH ₂ S(=O)CH ₃
IA-658	A ^{1.1}	CH ₂ C(=O)CH ₃	CH ₂ S(=O)CH ₃
IA-659	A ^{1.1}	CH ₂ C(=O)CH ₂ CH ₃	CH ₂ S(=O)CH ₃
IA-660	A ^{1.1}	CH ₂ COOH	CH ₂ S(=O)CH ₃
IA-661	A ^{1.1}	CH ₂ COOCH ₃	CH ₂ S(=O)CH ₃
IA-662	A ^{1.1}	CH ₂ COOCH ₂ CH ₃	CH ₂ S(=O)CH ₃
IA-663	A ^{1.1}	cyclo-C ₃ H ₅	CH ₂ S(=O)CH ₃
IA-664	A ^{1.1}	cyclo-C ₄ H ₇	CH ₂ S(=O)CH ₃
IA-665	A ^{1.1}	cyclo-C ₅ H ₉	CH ₂ S(=O)CH ₃
IA-666	A ^{1.1}	cyclo-C ₆ H ₁₁	CH ₂ S(=O)CH ₃
IA-667	A ^{1.1}	C ₆ H ₅	CH ₂ S(=O)CH ₃
IA-668	A ^{1.1}	CH ₂ S(=O) ₂ CH ₃	CH ₂ S(=O) ₂ CH ₃
IA-669	A ^{1.1}	CH ₂ C(=O)CH ₃	CH ₂ S(=O) ₂ CH ₃
IA-670	A ^{1.1}	CH ₂ C(=O)CH ₂ CH ₃	CH ₂ S(=O) ₂ CH ₃
IA-671	A ^{1.1}	CH ₂ COOH	CH ₂ S(=O) ₂ CH ₃
IA-672	A ^{1.1}	CH ₂ COOCH ₃	CH ₂ S(=O) ₂ CH ₃
IA-673	A ^{1.1}	CH ₂ COOCH ₂ CH ₃	CH ₂ S(=O) ₂ CH ₃
IA-674	A ^{1.1}	cyclo-C ₃ H ₅	CH ₂ S(=O) ₂ CH ₃
IA-675	A ^{1.1}	cyclo-C ₄ H ₇	CH ₂ S(=O) ₂ CH ₃
IA-676	A ^{1.1}	cyclo-C ₅ H ₉	CH ₂ S(=O) ₂ CH ₃
IA-677	A ^{1.1}	cyclo-C ₆ H ₁₁	CH ₂ S(=O) ₂ CH ₃
IA-678	A ^{1.1}	C ₆ H ₅	CH ₂ S(=O) ₂ CH ₃
IA-679	A ^{1.1}	CH ₂ C(=O)CH ₃	CH ₂ C(=O)CH ₃

No.	A	R ^e	R ^f
IA-680	A ^{1.1}	CH ₂ C(=O)CH ₂ CH ₃	CH ₂ C(=O)CH ₃
IA-681	A ^{1.1}	CH ₂ COOH	CH ₂ C(=O)CH ₃
IA-682	A ^{1.1}	CH ₂ COOCH ₃	CH ₂ C(=O)CH ₃
IA-683	A ^{1.1}	CH ₂ COOCH ₂ CH ₃	CH ₂ C(=O)CH ₃
IA-684	A ^{1.1}	cyclo-C ₃ H ₅	CH ₂ C(=O)CH ₃
IA-685	A ^{1.1}	cyclo-C ₄ H ₇	CH ₂ C(=O)CH ₃
IA-686	A ^{1.1}	cyclo-C ₅ H ₉	CH ₂ C(=O)CH ₃
IA-687	A ^{1.1}	cyclo-C ₆ H ₁₁	CH ₂ C(=O)CH ₃
IA-688	A ^{1.1}	C ₆ H ₅	CH ₂ C(=O)CH ₃
IA-689	A ^{1.1}	CH ₂ C(=O)CH ₂ CH ₃	CH ₂ C(=O)CH ₂ CH ₃
IA-690	A ^{1.1}	CH ₂ COOH	CH ₂ C(=O)CH ₂ CH ₃
IA-691	A ^{1.1}	CH ₂ COOCH ₃	CH ₂ C(=O)CH ₂ CH ₃
IA-692	A ^{1.1}	CH ₂ COOCH ₂ CH ₃	CH ₂ C(=O)CH ₂ CH ₃
IA-693	A ^{1.1}	cyclo-C ₃ H ₅	CH ₂ C(=O)CH ₂ CH ₃
IA-694	A ^{1.1}	cyclo-C ₄ H ₇	CH ₂ C(=O)CH ₂ CH ₃
IA-695	A ^{1.1}	cyclo-C ₅ H ₉	CH ₂ C(=O)CH ₂ CH ₃
IA-696	A ^{1.1}	cyclo-C ₆ H ₁₁	CH ₂ C(=O)CH ₂ CH ₃
IA-697	A ^{1.1}	C ₆ H ₅	CH ₂ C(=O)CH ₂ CH ₃
IA-698	A ^{1.1}	CH ₂ COOH	CH ₂ COOH
IA-699	A ^{1.1}	CH ₂ COOCH ₃	CH ₂ COOH
IA-700	A ^{1.1}	CH ₂ COOCH ₂ CH ₃	CH ₂ COOH
IA-701	A ^{1.1}	cyclo-C ₃ H ₅	CH ₂ COOH
IA-702	A ^{1.1}	cyclo-C ₄ H ₇	CH ₂ COOH
IA-703	A ^{1.1}	cyclo-C ₅ H ₉	CH ₂ COOH
IA-704	A ^{1.1}	cyclo-C ₆ H ₁₁	CH ₂ COOH
IA-705	A ^{1.1}	C ₆ H ₅	CH ₂ COOH
IA-706	A ^{1.1}	CH ₂ COOCH ₃	CH ₂ COOCH ₃
IA-707	A ^{1.1}	CH ₂ COOCH ₂ CH ₃	CH ₂ COOCH ₃
IA-708	A ^{1.1}	cyclo-C ₃ H ₅	CH ₂ COOCH ₃
IA-709	A ^{1.1}	cyclo-C ₄ H ₇	CH ₂ COOCH ₃
IA-710	A ^{1.1}	cyclo-C ₅ H ₉	CH ₂ COOCH ₃
IA-711	A ^{1.1}	cyclo-C ₆ H ₁₁	CH ₂ COOCH ₃

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No.	A	R ^e	R ^f
IA-712	A ^{1.1}	C ₆ H ₅	CH ₂ COOCH ₃
IA-713	A ^{1.1}	CH ₂ COOCH ₂ CH ₃	CH ₂ COOCH ₂ CH ₃
IA-714	A ^{1.1}	cyclo-C ₃ H ₅	CH ₂ COOCH ₂ CH ₃
IA-715	A ^{1.1}	cyclo-C ₄ H ₇	CH ₂ COOCH ₂ CH ₃
IA-716	A ^{1.1}	cyclo-C ₅ H ₉	CH ₂ COOCH ₂ CH ₃
IA-717	A ^{1.1}	cyclo-C ₆ H ₁₁	CH ₂ COOCH ₂ CH ₃
IA-718	A ^{1.1}	C ₆ H ₅	CH ₂ COOCH ₂ CH ₃
IA-719	A ^{1.1}	cyclo-C ₃ H ₅	cyclo-C ₃ H ₅
IA-720	A ^{1.1}	cyclo-C ₄ H ₇	cyclo-C ₃ H ₅
IA-721	A ^{1.1}	cyclo-C ₅ H ₉	cyclo-C ₃ H ₅
IA-722	A ^{1.1}	cyclo-C ₆ H ₁₁	cyclo-C ₃ H ₅
IA-723	A ^{1.1}	C ₆ H ₅	cyclo-C ₃ H ₅
IA-724	A ^{1.1}	cyclo-C ₄ H ₇	cyclo-C ₄ H ₇
IA-725	A ^{1.1}	cyclo-C ₅ H ₉	cyclo-C ₄ H ₇
IA-726	A ^{1.1}	cyclo-C ₆ H ₁₁	cyclo-C ₄ H ₇
IA-727	A ^{1.1}	C ₆ H ₅	cyclo-C ₄ H ₇
IA-728	A ^{1.1}	cyclo-C ₅ H ₉	cyclo-C ₅ H ₉
IA-729	A ^{1.1}	cyclo-C ₆ H ₁₁	cyclo-C ₅ H ₉
IA-730	A ^{1.1}	C ₆ H ₅	cyclo-C ₅ H ₉
IA-731	A ^{1.1}	cyclo-C ₆ H ₁₁	cyclo-C ₆ H ₁₁
IA-732	A ^{1.1}	C ₆ H ₅	cyclo-C ₆ H ₁₁
IA-733	A ^{1.1}	C ₆ H ₅	C ₆ H ₅
IA-734	$\begin{array}{c} \text{O} \\ \parallel \\ -\text{N}=\text{S} \begin{array}{l} \nearrow \text{R}^e \\ \searrow \text{R}^f \end{array} \\ \text{A}^{1.2} \end{array}$	CH ₃	CH ₃
IA-735	A ^{1.2}	CH ₂ CH ₃	CH ₃
IA-736	A ^{1.2}	CH=CH ₂	CH ₃
IA-737	A ^{1.2}	CH ₂ CH ₂ CH ₃	CH ₃
IA-738	A ^{1.2}	CH(CH ₃) ₂	CH ₃
IA-739	A ^{1.2}	CH ₂ CH ₂ CH ₂ CH ₃	CH ₃
IA-740	A ^{1.2}	C(CH ₃) ₃	CH ₃
IA-741	A ^{1.2}	CH ₂ CH(CH ₃) ₂	CH ₃

No.	A	R ^e	R ^f
IA-742	A ^{1.2}	CH(CH ₃)CH ₂ CH ₃	CH ₃
IA-743	A ^{1.2}	CH ₂ CHCH ₂	CH ₃
IA-744	A ^{1.2}	CH ₂ CCH	CH ₃
IA-745	A ^{1.2}	CH(CH ₃)CH=CH ₂	CH ₃
IA-746	A ^{1.2}	CHF ₂	CH ₃
IA-747	A ^{1.2}	CH ₂ Cl	CH ₃
IA-748	A ^{1.2}	CH ₂ CH ₂ CN	CH ₃
IA-749	A ^{1.2}	CH ₂ CH ₂ Cl	CH ₃
IA-750	A ^{1.2}	CH ₂ CH ₂ OH	CH ₃
IA-751	A ^{1.2}	CH ₂ CH ₂ CH ₂ OH	CH ₃
IA-752	A ^{1.2}	CH ₂ CH(OH)CH ₂ OH	CH ₃
IA-753	A ^{1.2}	CH ₂ CH(OCH ₃) ₂	CH ₃
IA-754	A ^{1.2}	CH ₂ SCH ₃	CH ₃
IA-755	A ^{1.2}	(CH ₂) ₃ SCH ₃	CH ₃
IA-756	A ^{1.2}	CH ₂ S(=O)CH ₃	CH ₃
IA-757	A ^{1.2}	CH ₂ S(=O) ₂ CH ₃	CH ₃
IA-758	A ^{1.2}	CH ₂ C(=O)CH ₃	CH ₃
IA-759	A ^{1.2}	CH ₂ C(=O)CH ₂ CH ₃	CH ₃
IA-760	A ^{1.2}	CH ₂ COOH	CH ₃
IA-761	A ^{1.2}	CH ₂ COOCH ₃	CH ₃
IA-762	A ^{1.2}	CH ₂ COOCH ₂ CH ₃	CH ₃
IA-763	A ^{1.2}	cyclo-C ₃ H ₅	CH ₃
IA-764	A ^{1.2}	cyclo-C ₄ H ₇	CH ₃
IA-765	A ^{1.2}	cyclo-C ₅ H ₉	CH ₃
IA-766	A ^{1.2}	cyclo-C ₆ H ₁₁	CH ₃
IA-767	A ^{1.2}	C ₆ H ₅	CH ₃
IA-768	A ^{1.2}	CH ₂ CH ₃	CH ₂ CH ₃
IA-769	A ^{1.2}	CH=CH ₂	CH ₂ CH ₃
IA-770	A ^{1.2}	CH ₂ CH ₂ CH ₃	CH ₂ CH ₃
IA-771	A ^{1.2}	CH(CH ₃) ₂	CH ₂ CH ₃
IA-772	A ^{1.2}	CH ₂ CH ₂ CH ₂ CH ₃	CH ₂ CH ₃
IA-773	A ^{1.2}	C(CH ₃) ₃	CH ₂ CH ₃

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No.	A	R ^e	R ^f
IA-774	A ^{1.2}	CH ₂ CH(CH ₃) ₂	CH ₂ CH ₃
IA-775	A ^{1.2}	CH(CH ₃)CH ₂ CH ₃	CH ₂ CH ₃
IA-776	A ^{1.2}	CH ₂ CHCH ₂	CH ₂ CH ₃
IA-777	A ^{1.2}	CH ₂ CCH	CH ₂ CH ₃
IA-778	A ^{1.2}	CH(CH ₃)CH=CH ₂	CH ₂ CH ₃
IA-779	A ^{1.2}	CHF ₂	CH ₂ CH ₃
IA-780	A ^{1.2}	CH ₂ Cl	CH ₂ CH ₃
IA-781	A ^{1.2}	CH ₂ CH ₂ CN	CH ₂ CH ₃
IA-782	A ^{1.2}	CH ₂ CH ₂ Cl	CH ₂ CH ₃
IA-783	A ^{1.2}	CH ₂ CH ₂ OH	CH ₂ CH ₃
IA-784	A ^{1.2}	CH ₂ CH ₂ CH ₂ OH	CH ₂ CH ₃
IA-785	A ^{1.2}	CH ₂ CH(OH)CH ₂ OH	CH ₂ CH ₃
IA-786	A ^{1.2}	CH ₂ CH(OCH ₃) ₂	CH ₂ CH ₃
IA-787	A ^{1.2}	CH ₂ SCH ₃	CH ₂ CH ₃
IA-788	A ^{1.2}	(CH ₂) ₃ SCH ₃	CH ₂ CH ₃
IA-789	A ^{1.2}	CH ₂ S(=O)CH ₃	CH ₂ CH ₃
IA-790	A ^{1.2}	CH ₂ S(=O) ₂ CH ₃	CH ₂ CH ₃
IA-791	A ^{1.2}	CH ₂ C(=O)CH ₃	CH ₂ CH ₃
IA-792	A ^{1.2}	CH ₂ C(=O)CH ₂ CH ₃	CH ₂ CH ₃
IA-793	A ^{1.2}	CH ₂ COOH	CH ₂ CH ₃
IA-794	A ^{1.2}	CH ₂ COOCH ₃	CH ₂ CH ₃
IA-795	A ^{1.2}	CH ₂ COOCH ₂ CH ₃	CH ₂ CH ₃
IA-796	A ^{1.2}	cyclo-C ₃ H ₅	CH ₂ CH ₃
IA-797	A ^{1.2}	cyclo-C ₄ H ₇	CH ₂ CH ₃
IA-798	A ^{1.2}	cyclo-C ₅ H ₉	CH ₂ CH ₃
IA-799	A ^{1.2}	cyclo-C ₆ H ₁₁	CH ₂ CH ₃
IA-800	A ^{1.2}	C ₆ H ₅	CH ₂ CH ₃
IA-801	A ^{1.2}	CH=CH ₂	CH=CH ₂
IA-802	A ^{1.2}	CH ₂ CH ₂ CH ₃	CH=CH ₂
IA-803	A ^{1.2}	CH(CH ₃) ₂	CH=CH ₂
IA-804	A ^{1.2}	CH ₂ CH ₂ CH ₂ CH ₃	CH=CH ₂
IA-805	A ^{1.2}	C(CH ₃) ₃	CH=CH ₂

No.	A	R ^e	R ^f
IA-806	A ^{1.2}	CH ₂ CH(CH ₃) ₂	CH=CH ₂
IA-807	A ^{1.2}	CH(CH ₃)CH ₂ CH ₃	CH=CH ₂
IA-808	A ^{1.2}	CH ₂ CHCH ₂	CH=CH ₂
IA-809	A ^{1.2}	CH ₂ CCH	CH=CH ₂
IA-810	A ^{1.2}	CH(CH ₃)CH=CH ₂	CH=CH ₂
IA-811	A ^{1.2}	CHF ₂	CH=CH ₂
IA-812	A ^{1.2}	CH ₂ Cl	CH=CH ₂
IA-813	A ^{1.2}	CH ₂ CH ₂ CN	CH=CH ₂
IA-814	A ^{1.2}	CH ₂ CH ₂ Cl	CH=CH ₂
IA-815	A ^{1.2}	CH ₂ CH ₂ OH	CH=CH ₂
IA-816	A ^{1.2}	CH ₂ CH ₂ CH ₂ OH	CH=CH ₂
IA-817	A ^{1.2}	CH ₂ CH(OH)CH ₂ OH	CH=CH ₂
IA-818	A ^{1.2}	CH ₂ CH(OCH ₃) ₂	CH=CH ₂
IA-819	A ^{1.2}	CH ₂ SCH ₃	CH=CH ₂
IA-820	A ^{1.2}	(CH ₂) ₃ SCH ₃	CH=CH ₂
IA-821	A ^{1.2}	CH ₂ S(=O)CH ₃	CH=CH ₂
IA-822	A ^{1.2}	CH ₂ S(=O) ₂ CH ₃	CH=CH ₂
IA-823	A ^{1.2}	CH ₂ C(=O)CH ₃	CH=CH ₂
IA-824	A ^{1.2}	CH ₂ C(=O)CH ₂ CH ₃	CH=CH ₂
IA-825	A ^{1.2}	CH ₂ COOH	CH=CH ₂
IA-826	A ^{1.2}	CH ₂ COOCH ₃	CH=CH ₂
IA-827	A ^{1.2}	CH ₂ COOCH ₂ CH ₃	CH=CH ₂
IA-828	A ^{1.2}	cyclo-C ₃ H ₅	CH=CH ₂
IA-829	A ^{1.2}	cyclo-C ₄ H ₇	CH=CH ₂
IA-830	A ^{1.2}	cyclo-C ₅ H ₉	CH=CH ₂
IA-831	A ^{1.2}	cyclo-C ₆ H ₁₁	CH=CH ₂
IA-832	A ^{1.2}	C ₆ H ₅	CH=CH ₂
IA-833	A ^{1.2}	CH ₂ CH ₂ CH ₃	CH ₂ CH ₂ CH ₃
IA-834	A ^{1.2}	CH(CH ₃) ₂	CH ₂ CH ₂ CH ₃
IA-835	A ^{1.2}	CH ₂ CH ₂ CH ₂ CH ₃	CH ₂ CH ₂ CH ₃
IA-836	A ^{1.2}	C(CH ₃) ₃	CH ₂ CH ₂ CH ₃
IA-837	A ^{1.2}	CH ₂ CH(CH ₃) ₂	CH ₂ CH ₂ CH ₃

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No.	A	R ^e	R ^f
IA-838	A ^{1.2}	CH(CH ₃)CH ₂ CH ₃	CH ₂ CH ₂ CH ₃
IA-839	A ^{1.2}	CH ₂ CHCH ₂	CH ₂ CH ₂ CH ₃
IA-840	A ^{1.2}	CH ₂ CCH	CH ₂ CH ₂ CH ₃
IA-841	A ^{1.2}	CH(CH ₃)CH=CH ₂	CH ₂ CH ₂ CH ₃
IA-842	A ^{1.2}	CHF ₂	CH ₂ CH ₂ CH ₃
IA-843	A ^{1.2}	CH ₂ Cl	CH ₂ CH ₂ CH ₃
IA-844	A ^{1.2}	CH ₂ CH ₂ CN	CH ₂ CH ₂ CH ₃
IA-845	A ^{1.2}	CH ₂ CH ₂ Cl	CH ₂ CH ₂ CH ₃
IA-846	A ^{1.2}	CH ₂ CH ₂ OH	CH ₂ CH ₂ CH ₃
IA-847	A ^{1.2}	CH ₂ CH ₂ CH ₂ OH	CH ₂ CH ₂ CH ₃
IA-848	A ^{1.2}	CH ₂ CH(OH)CH ₂ OH	CH ₂ CH ₂ CH ₃
IA-849	A ^{1.2}	CH ₂ CH(OCH ₃) ₂	CH ₂ CH ₂ CH ₃
IA-850	A ^{1.2}	CH ₂ SCH ₃	CH ₂ CH ₂ CH ₃
IA-851	A ^{1.2}	(CH ₂) ₃ SCH ₃	CH ₂ CH ₂ CH ₃
IA-852	A ^{1.2}	CH ₂ S(=O)CH ₃	CH ₂ CH ₂ CH ₃
IA-853	A ^{1.2}	CH ₂ S(=O) ₂ CH ₃	CH ₂ CH ₂ CH ₃
IA-854	A ^{1.2}	CH ₂ C(=O)CH ₃	CH ₂ CH ₂ CH ₃
IA-855	A ^{1.2}	CH ₂ C(=O)CH ₂ CH ₃	CH ₂ CH ₂ CH ₃
IA-856	A ^{1.2}	CH ₂ COOH	CH ₂ CH ₂ CH ₃
IA-857	A ^{1.2}	CH ₂ COOCH ₃	CH ₂ CH ₂ CH ₃
IA-858	A ^{1.2}	CH ₂ COOCH ₂ CH ₃	CH ₂ CH ₂ CH ₃
IA-859	A ^{1.2}	cyclo-C ₃ H ₅	CH ₂ CH ₂ CH ₃
IA-860	A ^{1.2}	cyclo-C ₄ H ₇	CH ₂ CH ₂ CH ₃
IA-861	A ^{1.2}	cyclo-C ₅ H ₉	CH ₂ CH ₂ CH ₃
IA-862	A ^{1.2}	cyclo-C ₆ H ₁₁	CH ₂ CH ₂ CH ₃
IA-863	A ^{1.2}	C ₆ H ₅	CH ₂ CH ₂ CH ₃
IA-864	A ^{1.2}	CH(CH ₃) ₂	CH(CH ₃) ₂
IA-865	A ^{1.2}	CH ₂ CH ₂ CH ₂ CH ₃	CH(CH ₃) ₂
IA-866	A ^{1.2}	C(CH ₃) ₃	CH(CH ₃) ₂
IA-867	A ^{1.2}	CH ₂ CH(CH ₃) ₂	CH(CH ₃) ₂
IA-868	A ^{1.2}	CH(CH ₃)CH ₂ CH ₃	CH(CH ₃) ₂
IA-869	A ^{1.2}	CH ₂ CHCH ₂	CH(CH ₃) ₂

No.	A	R ^e	R ^f
IA-870	A ^{1.2}	CH ₂ CCH	CH(CH ₃) ₂
IA-871	A ^{1.2}	CH(CH ₃)CH=CH ₂	CH(CH ₃) ₂
IA-872	A ^{1.2}	CHF ₂	CH(CH ₃) ₂
IA-873	A ^{1.2}	CH ₂ Cl	CH(CH ₃) ₂
IA-874	A ^{1.2}	CH ₂ CH ₂ CN	CH(CH ₃) ₂
IA-875	A ^{1.2}	CH ₂ CH ₂ Cl	CH(CH ₃) ₂
IA-876	A ^{1.2}	CH ₂ CH ₂ OH	CH(CH ₃) ₂
IA-877	A ^{1.2}	CH ₂ CH ₂ CH ₂ OH	CH(CH ₃) ₂
IA-878	A ^{1.2}	CH ₂ CH(OH)CH ₂ OH	CH(CH ₃) ₂
IA-879	A ^{1.2}	CH ₂ CH(OCH ₃) ₂	CH(CH ₃) ₂
IA-880	A ^{1.2}	CH ₂ SCH ₃	CH(CH ₃) ₂
IA-881	A ^{1.2}	(CH ₂) ₃ SCH ₃	CH(CH ₃) ₂
IA-882	A ^{1.2}	CH ₂ S(=O)CH ₃	CH(CH ₃) ₂
IA-883	A ^{1.2}	CH ₂ S(=O) ₂ CH ₃	CH(CH ₃) ₂
IA-884	A ^{1.2}	CH ₂ C(=O)CH ₃	CH(CH ₃) ₂
IA-885	A ^{1.2}	CH ₂ C(=O)CH ₂ CH ₃	CH(CH ₃) ₂
IA-886	A ^{1.2}	CH ₂ COOH	CH(CH ₃) ₂
IA-887	A ^{1.2}	CH ₂ COOCH ₃	CH(CH ₃) ₂
IA-888	A ^{1.2}	CH ₂ COOCH ₂ CH ₃	CH(CH ₃) ₂
IA-889	A ^{1.2}	cyclo-C ₃ H ₅	CH(CH ₃) ₂
IA-890	A ^{1.2}	cyclo-C ₄ H ₇	CH(CH ₃) ₂
IA-891	A ^{1.2}	cyclo-C ₅ H ₉	CH(CH ₃) ₂
IA-892	A ^{1.2}	cyclo-C ₆ H ₁₁	CH(CH ₃) ₂
IA-893	A ^{1.2}	C ₆ H ₅	CH(CH ₃) ₂
IA-894	A ^{1.2}	CH ₂ CH ₂ CH ₂ CH ₃	CH ₂ CH ₂ CH ₂ CH ₃
IA-895	A ^{1.2}	C(CH ₃) ₃	CH ₂ CH ₂ CH ₂ CH ₃
IA-896	A ^{1.2}	CH ₂ CH(CH ₃) ₂	CH ₂ CH ₂ CH ₂ CH ₃
IA-897	A ^{1.2}	CH(CH ₃)CH ₂ CH ₃	CH ₂ CH ₂ CH ₂ CH ₃
IA-898	A ^{1.2}	CH ₂ CHCH ₂	CH ₂ CH ₂ CH ₂ CH ₃
IA-899	A ^{1.2}	CH ₂ CCH	CH ₂ CH ₂ CH ₂ CH ₃
IA-900	A ^{1.2}	CH(CH ₃)CH=CH ₂	CH ₂ CH ₂ CH ₂ CH ₃
IA-901	A ^{1.2}	CHF ₂	CH ₂ CH ₂ CH ₂ CH ₃

No.	A	R ^e	R ^f
IA-902	A ^{1.2}	CH ₂ Cl	CH ₂ CH ₂ CH ₂ CH ₃
IA-903	A ^{1.2}	CH ₂ CH ₂ CN	CH ₂ CH ₂ CH ₂ CH ₃
IA-904	A ^{1.2}	CH ₂ CH ₂ Cl	CH ₂ CH ₂ CH ₂ CH ₃
IA-905	A ^{1.2}	CH ₂ CH ₂ OH	CH ₂ CH ₂ CH ₂ CH ₃
IA-906	A ^{1.2}	CH ₂ CH ₂ CH ₂ OH	CH ₂ CH ₂ CH ₂ CH ₃
IA-907	A ^{1.2}	CH ₂ CH(OH)CH ₂ OH	CH ₂ CH ₂ CH ₂ CH ₃
IA-908	A ^{1.2}	CH ₂ CH(OCH ₃) ₂	CH ₂ CH ₂ CH ₂ CH ₃
IA-909	A ^{1.2}	CH ₂ SCH ₃	CH ₂ CH ₂ CH ₂ CH ₃
IA-910	A ^{1.2}	(CH ₂) ₃ SCH ₃	CH ₂ CH ₂ CH ₂ CH ₃
IA-911	A ^{1.2}	CH ₂ S(=O)CH ₃	CH ₂ CH ₂ CH ₂ CH ₃
IA-912	A ^{1.2}	CH ₂ S(=O) ₂ CH ₃	CH ₂ CH ₂ CH ₂ CH ₃
IA-913	A ^{1.2}	CH ₂ C(=O)CH ₃	CH ₂ CH ₂ CH ₂ CH ₃
IA-914	A ^{1.2}	CH ₂ C(=O)CH ₂ CH ₃	CH ₂ CH ₂ CH ₂ CH ₃
IA-915	A ^{1.2}	CH ₂ COOH	CH ₂ CH ₂ CH ₂ CH ₃
IA-916	A ^{1.2}	CH ₂ COOCH ₃	CH ₂ CH ₂ CH ₂ CH ₃
IA-917	A ^{1.2}	CH ₂ COOCH ₂ CH ₃	CH ₂ CH ₂ CH ₂ CH ₃
IA-918	A ^{1.2}	cyclo-C ₃ H ₅	CH ₂ CH ₂ CH ₂ CH ₃
IA-919	A ^{1.2}	cyclo-C ₄ H ₇	CH ₂ CH ₂ CH ₂ CH ₃
IA-920	A ^{1.2}	cyclo-C ₅ H ₉	CH ₂ CH ₂ CH ₂ CH ₃
IA-921	A ^{1.2}	cyclo-C ₆ H ₁₁	CH ₂ CH ₂ CH ₂ CH ₃
IA-922	A ^{1.2}	C ₆ H ₅	CH ₂ CH ₂ CH ₂ CH ₃
IA-923	A ^{1.2}	C(CH ₃) ₃	C(CH ₃) ₃
IA-924	A ^{1.2}	CH ₂ CH(CH ₃) ₂	C(CH ₃) ₃
IA-925	A ^{1.2}	CH(CH ₃)CH ₂ CH ₃	C(CH ₃) ₃
IA-926	A ^{1.2}	CH ₂ CHCH ₂	C(CH ₃) ₃
IA-927	A ^{1.2}	CH ₂ CCH	C(CH ₃) ₃
IA-928	A ^{1.2}	CH(CH ₃)CH=CH ₂	C(CH ₃) ₃
IA-929	A ^{1.2}	CHF ₂	C(CH ₃) ₃
IA-930	A ^{1.2}	CH ₂ Cl	C(CH ₃) ₃
IA-931	A ^{1.2}	CH ₂ CH ₂ CN	C(CH ₃) ₃
IA-932	A ^{1.2}	CH ₂ CH ₂ Cl	C(CH ₃) ₃
IA-933	A ^{1.2}	CH ₂ CH ₂ OH	C(CH ₃) ₃

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No.	A	R ^e	R ^f
IA-934	A ^{1.2}	CH ₂ CH ₂ CH ₂ OH	C(CH ₃) ₃
IA-935	A ^{1.2}	CH ₂ CH(OH)CH ₂ OH	C(CH ₃) ₃
IA-936	A ^{1.2}	CH ₂ CH(OCH ₃) ₂	C(CH ₃) ₃
IA-937	A ^{1.2}	CH ₂ SCH ₃	C(CH ₃) ₃
IA-938	A ^{1.2}	(CH ₂) ₃ SCH ₃	C(CH ₃) ₃
IA-939	A ^{1.2}	CH ₂ S(=O)CH ₃	C(CH ₃) ₃
IA-940	A ^{1.2}	CH ₂ S(=O) ₂ CH ₃	C(CH ₃) ₃
IA-941	A ^{1.2}	CH ₂ C(=O)CH ₃	C(CH ₃) ₃
IA-942	A ^{1.2}	CH ₂ C(=O)CH ₂ CH ₃	C(CH ₃) ₃
IA-943	A ^{1.2}	CH ₂ COOH	C(CH ₃) ₃
IA-944	A ^{1.2}	CH ₂ COOCH ₃	C(CH ₃) ₃
IA-945	A ^{1.2}	CH ₂ COOCH ₂ CH ₃	C(CH ₃) ₃
IA-946	A ^{1.2}	cyclo-C ₃ H ₅	C(CH ₃) ₃
IA-947	A ^{1.2}	cyclo-C ₄ H ₇	C(CH ₃) ₃
IA-948	A ^{1.2}	cyclo-C ₅ H ₉	C(CH ₃) ₃
IA-949	A ^{1.2}	cyclo-C ₆ H ₁₁	C(CH ₃) ₃
IA-950	A ^{1.2}	C ₆ H ₅	C(CH ₃) ₃
IA-951	A ^{1.2}	CH ₂ CH(CH ₃) ₂	CH ₂ CH(CH ₃) ₂
IA-952	A ^{1.2}	CH(CH ₃)CH ₂ CH ₃	CH ₂ CH(CH ₃) ₂
IA-953	A ^{1.2}	CH ₂ CHCH ₂	CH ₂ CH(CH ₃) ₂
IA-954	A ^{1.2}	CH ₂ CCH	CH ₂ CH(CH ₃) ₂
IA-955	A ^{1.2}	CH(CH ₃)CH=CH ₂	CH ₂ CH(CH ₃) ₂
IA-956	A ^{1.2}	CHF ₂	CH ₂ CH(CH ₃) ₂
IA-957	A ^{1.2}	CH ₂ Cl	CH ₂ CH(CH ₃) ₂
IA-958	A ^{1.2}	CH ₂ CH ₂ CN	CH ₂ CH(CH ₃) ₂
IA-959	A ^{1.2}	CH ₂ CH ₂ Cl	CH ₂ CH(CH ₃) ₂
IA-960	A ^{1.2}	CH ₂ CH ₂ OH	CH ₂ CH(CH ₃) ₂
IA-961	A ^{1.2}	CH ₂ CH ₂ CH ₂ OH	CH ₂ CH(CH ₃) ₂
IA-962	A ^{1.2}	CH ₂ CH(OH)CH ₂ OH	CH ₂ CH(CH ₃) ₂
IA-963	A ^{1.2}	CH ₂ CH(OCH ₃) ₂	CH ₂ CH(CH ₃) ₂
IA-964	A ^{1.2}	CH ₂ SCH ₃	CH ₂ CH(CH ₃) ₂
IA-965	A ^{1.2}	(CH ₂) ₃ SCH ₃	CH ₂ CH(CH ₃) ₂

No.	A	R ^e	R ^f
IA-966	A ^{1.2}	CH ₂ S(=O)CH ₃	CH ₂ CH(CH ₃) ₂
IA-967	A ^{1.2}	CH ₂ S(=O) ₂ CH ₃	CH ₂ CH(CH ₃) ₂
IA-968	A ^{1.2}	CH ₂ C(=O)CH ₃	CH ₂ CH(CH ₃) ₂
IA-969	A ^{1.2}	CH ₂ C(=O)CH ₂ CH ₃	CH ₂ CH(CH ₃) ₂
IA-970	A ^{1.2}	CH ₂ COOH	CH ₂ CH(CH ₃) ₂
IA-971	A ^{1.2}	CH ₂ COOCH ₃	CH ₂ CH(CH ₃) ₂
IA-972	A ^{1.2}	CH ₂ COOCH ₂ CH ₃	CH ₂ CH(CH ₃) ₂
IA-973	A ^{1.2}	cyclo-C ₃ H ₅	CH ₂ CH(CH ₃) ₂
IA-974	A ^{1.2}	cyclo-C ₄ H ₇	CH ₂ CH(CH ₃) ₂
IA-975	A ^{1.2}	cyclo-C ₅ H ₉	CH ₂ CH(CH ₃) ₂
IA-976	A ^{1.2}	cyclo-C ₆ H ₁₁	CH ₂ CH(CH ₃) ₂
IA-977	A ^{1.2}	C ₆ H ₅	CH ₂ CH(CH ₃) ₂
IA-978	A ^{1.2}	CH(CH ₃)CH ₂ CH ₃	CH(CH ₃)CH ₂ CH ₃
IA-979	A ^{1.2}	CH ₂ CHCH ₂	CH(CH ₃)CH ₂ CH ₃
IA-980	A ^{1.2}	CH ₂ CCH	CH(CH ₃)CH ₂ CH ₃
IA-981	A ^{1.2}	CH(CH ₃)CH=CH ₂	CH(CH ₃)CH ₂ CH ₃
IA-982	A ^{1.2}	CHF ₂	CH(CH ₃)CH ₂ CH ₃
IA-983	A ^{1.2}	CH ₂ Cl	CH(CH ₃)CH ₂ CH ₃
IA-984	A ^{1.2}	CH ₂ CH ₂ CN	CH(CH ₃)CH ₂ CH ₃
IA-985	A ^{1.2}	CH ₂ CH ₂ Cl	CH(CH ₃)CH ₂ CH ₃
IA-986	A ^{1.2}	CH ₂ CH ₂ OH	CH(CH ₃)CH ₂ CH ₃
IA-987	A ^{1.2}	CH ₂ CH ₂ CH ₂ OH	CH(CH ₃)CH ₂ CH ₃
IA-988	A ^{1.2}	CH ₂ CH(OH)CH ₂ OH	CH(CH ₃)CH ₂ CH ₃
IA-989	A ^{1.2}	CH ₂ CH(OCH ₃) ₂	CH(CH ₃)CH ₂ CH ₃
IA-990	A ^{1.2}	CH ₂ SCH ₃	CH(CH ₃)CH ₂ CH ₃
IA-991	A ^{1.2}	(CH ₂) ₃ SCH ₃	CH(CH ₃)CH ₂ CH ₃
IA-992	A ^{1.2}	CH ₂ S(=O)CH ₃	CH(CH ₃)CH ₂ CH ₃
IA-993	A ^{1.2}	CH ₂ S(=O) ₂ CH ₃	CH(CH ₃)CH ₂ CH ₃
IA-994	A ^{1.2}	CH ₂ C(=O)CH ₃	CH(CH ₃)CH ₂ CH ₃
IA-995	A ^{1.2}	CH ₂ C(=O)CH ₂ CH ₃	CH(CH ₃)CH ₂ CH ₃
IA-996	A ^{1.2}	CH ₂ COOH	CH(CH ₃)CH ₂ CH ₃
IA-997	A ^{1.2}	CH ₂ COOCH ₃	CH(CH ₃)CH ₂ CH ₃

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No.	A	R ^e	R ^f
IA-998	A ^{1.2}	CH ₂ COOCH ₂ CH ₃	CH(CH ₃)CH ₂ CH ₃
IA-999	A ^{1.2}	cyclo-C ₃ H ₅	CH(CH ₃)CH ₂ CH ₃
IA-1000	A ^{1.2}	cyclo-C ₄ H ₇	CH(CH ₃)CH ₂ CH ₃
IA-1001	A ^{1.2}	cyclo-C ₅ H ₉	CH(CH ₃)CH ₂ CH ₃
IA-1002	A ^{1.2}	cyclo-C ₆ H ₁₁	CH(CH ₃)CH ₂ CH ₃
IA-1003	A ^{1.2}	C ₆ H ₅	CH(CH ₃)CH ₂ CH ₃
IA-1004	A ^{1.2}	CH ₂ CHCH ₂	CH ₂ CHCH ₂
IA-1005	A ^{1.2}	CH ₂ CCH	CH ₂ CHCH ₂
IA-1006	A ^{1.2}	CH(CH ₃)CH=CH ₂	CH ₂ CHCH ₂
IA-1007	A ^{1.2}	CHF ₂	CH ₂ CHCH ₂
IA-1008	A ^{1.2}	CH ₂ Cl	CH ₂ CHCH ₂
IA-1009	A ^{1.2}	CH ₂ CH ₂ CN	CH ₂ CHCH ₂
IA-1010	A ^{1.2}	CH ₂ CH ₂ Cl	CH ₂ CHCH ₂
IA-1011	A ^{1.2}	CH ₂ CH ₂ OH	CH ₂ CHCH ₂
IA-1012	A ^{1.2}	CH ₂ CH ₂ CH ₂ OH	CH ₂ CHCH ₂
IA-1013	A ^{1.2}	CH ₂ CH(OH)CH ₂ OH	CH ₂ CHCH ₂
IA-1014	A ^{1.2}	CH ₂ CH(OCH ₃) ₂	CH ₂ CHCH ₂
IA-1015	A ^{1.2}	CH ₂ SCH ₃	CH ₂ CHCH ₂
IA-1016	A ^{1.2}	(CH ₂) ₃ SCH ₃	CH ₂ CHCH ₂
IA-1017	A ^{1.2}	CH ₂ S(=O)CH ₃	CH ₂ CHCH ₂
IA-1018	A ^{1.2}	CH ₂ S(=O) ₂ CH ₃	CH ₂ CHCH ₂
IA-1019	A ^{1.2}	CH ₂ C(=O)CH ₃	CH ₂ CHCH ₂
IA-1020	A ^{1.2}	CH ₂ C(=O)CH ₂ CH ₃	CH ₂ CHCH ₂
IA-1021	A ^{1.2}	CH ₂ COOH	CH ₂ CHCH ₂
IA-1022	A ^{1.2}	CH ₂ COOCH ₃	CH ₂ CHCH ₂
IA-1023	A ^{1.2}	CH ₂ COOCH ₂ CH ₃	CH ₂ CHCH ₂
IA-1024	A ^{1.2}	cyclo-C ₃ H ₅	CH ₂ CHCH ₂
IA-1025	A ^{1.2}	cyclo-C ₄ H ₇	CH ₂ CHCH ₂
IA-1026	A ^{1.2}	cyclo-C ₅ H ₉	CH ₂ CHCH ₂
IA-1027	A ^{1.2}	cyclo-C ₆ H ₁₁	CH ₂ CHCH ₂
IA-1028	A ^{1.2}	C ₆ H ₅	CH ₂ CHCH ₂
IA-1029	A ^{1.2}	CH ₂ CCH	CH ₂ CCH

No.	A	R ^e	R ^f
IA-1030	A ^{1.2}	CH(CH ₃)CH=CH ₂	CH ₂ CCH
IA-1031	A ^{1.2}	CHF ₂	CH ₂ CCH
IA-1032	A ^{1.2}	CH ₂ Cl	CH ₂ CCH
IA-1033	A ^{1.2}	CH ₂ CH ₂ CN	CH ₂ CCH
IA-1034	A ^{1.2}	CH ₂ CH ₂ Cl	CH ₂ CCH
IA-1035	A ^{1.2}	CH ₂ CH ₂ OH	CH ₂ CCH
IA-1036	A ^{1.2}	CH ₂ CH ₂ CH ₂ OH	CH ₂ CCH
IA-1037	A ^{1.2}	CH ₂ CH(OH)CH ₂ OH	CH ₂ CCH
IA-1038	A ^{1.2}	CH ₂ CH(OCH ₃) ₂	CH ₂ CCH
IA-1039	A ^{1.2}	CH ₂ SCH ₃	CH ₂ CCH
IA-1040	A ^{1.2}	(CH ₂) ₃ SCH ₃	CH ₂ CCH
IA-1041	A ^{1.2}	CH ₂ S(=O)CH ₃	CH ₂ CCH
IA-1042	A ^{1.2}	CH ₂ S(=O) ₂ CH ₃	CH ₂ CCH
IA-1043	A ^{1.2}	CH ₂ C(=O)CH ₃	CH ₂ CCH
IA-1044	A ^{1.2}	CH ₂ C(=O)CH ₂ CH ₃	CH ₂ CCH
IA-1045	A ^{1.2}	CH ₂ COOH	CH ₂ CCH
IA-1046	A ^{1.2}	CH ₂ COOCH ₃	CH ₂ CCH
IA-1047	A ^{1.2}	CH ₂ COOCH ₂ CH ₃	CH ₂ CCH
IA-1048	A ^{1.2}	cyclo-C ₃ H ₅	CH ₂ CCH
IA-1049	A ^{1.2}	cyclo-C ₄ H ₇	CH ₂ CCH
IA-1050	A ^{1.2}	cyclo-C ₅ H ₉	CH ₂ CCH
IA-1051	A ^{1.2}	cyclo-C ₆ H ₁₁	CH ₂ CCH
IA-1052	A ^{1.2}	C ₆ H ₅	CH ₂ CCH
IA-1053	A ^{1.2}	CH(CH ₃)CH=CH ₂	CH(CH ₃)CH=CH ₂
IA-1054	A ^{1.2}	CHF ₂	CH(CH ₃)CH=CH ₂
IA-1055	A ^{1.2}	CH ₂ Cl	CH(CH ₃)CH=CH ₂
IA-1056	A ^{1.2}	CH ₂ CH ₂ CN	CH(CH ₃)CH=CH ₂
IA-1057	A ^{1.2}	CH ₂ CH ₂ Cl	CH(CH ₃)CH=CH ₂
IA-1058	A ^{1.2}	CH ₂ CH ₂ OH	CH(CH ₃)CH=CH ₂
IA-1059	A ^{1.2}	CH ₂ CH ₂ CH ₂ OH	CH(CH ₃)CH=CH ₂
IA-1060	A ^{1.2}	CH ₂ CH(OH)CH ₂ OH	CH(CH ₃)CH=CH ₂
IA-1061	A ^{1.2}	CH ₂ CH(OCH ₃) ₂	CH(CH ₃)CH=CH ₂

No.	A	R ^e	R ^f
IA-1062	A ^{1.2}	CH ₂ SCH ₃	CH(CH ₃)CH=CH ₂
IA-1063	A ^{1.2}	(CH ₂) ₃ SCH ₃	CH(CH ₃)CH=CH ₂
IA-1064	A ^{1.2}	CH ₂ S(=O)CH ₃	CH(CH ₃)CH=CH ₂
IA-1065	A ^{1.2}	CH ₂ S(=O) ₂ CH ₃	CH(CH ₃)CH=CH ₂
IA-1066	A ^{1.2}	CH ₂ C(=O)CH ₃	CH(CH ₃)CH=CH ₂
IA-1067	A ^{1.2}	CH ₂ C(=O)CH ₂ CH ₃	CH(CH ₃)CH=CH ₂
IA-1068	A ^{1.2}	CH ₂ COOH	CH(CH ₃)CH=CH ₂
IA-1069	A ^{1.2}	CH ₂ COOCH ₃	CH(CH ₃)CH=CH ₂
IA-1070	A ^{1.2}	CH ₂ COOCH ₂ CH ₃	CH(CH ₃)CH=CH ₂
IA-1071	A ^{1.2}	cyclo-C ₃ H ₅	CH(CH ₃)CH=CH ₂
IA-1072	A ^{1.2}	cyclo-C ₄ H ₇	CH(CH ₃)CH=CH ₂
IA-1073	A ^{1.2}	cyclo-C ₅ H ₉	CH(CH ₃)CH=CH ₂
IA-1074	A ^{1.2}	cyclo-C ₆ H ₁₁	CH(CH ₃)CH=CH ₂
IA-1075	A ^{1.2}	C ₆ H ₅	CH(CH ₃)CH=CH ₂
IA-1076	A ^{1.2}	CHF ₂	CHF ₂
IA-1077	A ^{1.2}	CH ₂ Cl	CHF ₂
IA-1078	A ^{1.2}	CH ₂ CH ₂ CN	CHF ₂
IA-1079	A ^{1.2}	CH ₂ CH ₂ Cl	CHF ₂
IA-1080	A ^{1.2}	CH ₂ CH ₂ OH	CHF ₂
IA-1081	A ^{1.2}	CH ₂ CH ₂ CH ₂ OH	CHF ₂
IA-1082	A ^{1.2}	CH ₂ CH(OH)CH ₂ OH	CHF ₂
IA-1083	A ^{1.2}	CH ₂ CH(OCH ₃) ₂	CHF ₂
IA-1084	A ^{1.2}	CH ₂ SCH ₃	CHF ₂
IA-1085	A ^{1.2}	(CH ₂) ₃ SCH ₃	CHF ₂
IA-1086	A ^{1.2}	CH ₂ S(=O)CH ₃	CHF ₂
IA-1087	A ^{1.2}	CH ₂ S(=O) ₂ CH ₃	CHF ₂
IA-1088	A ^{1.2}	CH ₂ C(=O)CH ₃	CHF ₂
IA-1089	A ^{1.2}	CH ₂ C(=O)CH ₂ CH ₃	CHF ₂
IA-1090	A ^{1.2}	CH ₂ COOH	CHF ₂
IA-1091	A ^{1.2}	CH ₂ COOCH ₃	CHF ₂
IA-1092	A ^{1.2}	CH ₂ COOCH ₂ CH ₃	CHF ₂
IA-1093	A ^{1.2}	cyclo-C ₃ H ₅	CHF ₂

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No.	A	R ^e	R ^f
IA-1094	A ^{1.2}	cyclo-C ₄ H ₇	CHF ₂
IA-1095	A ^{1.2}	cyclo-C ₅ H ₉	CHF ₂
IA-1096	A ^{1.2}	cyclo-C ₆ H ₁₁	CHF ₂
IA-1097	A ^{1.2}	C ₆ H ₅	CHF ₂
IA-1098	A ^{1.2}	CH ₂ Cl	CH ₂ Cl
IA-1099	A ^{1.2}	CH ₂ CH ₂ CN	CH ₂ Cl
IA-1100	A ^{1.2}	CH ₂ CH ₂ Cl	CH ₂ Cl
IA-1101	A ^{1.2}	CH ₂ CH ₂ OH	CH ₂ Cl
IA-1102	A ^{1.2}	CH ₂ CH ₂ CH ₂ OH	CH ₂ Cl
IA-1103	A ^{1.2}	CH ₂ CH(OH)CH ₂ OH	CH ₂ Cl
IA-1104	A ^{1.2}	CH ₂ CH(OCH ₃) ₂	CH ₂ Cl
IA-1105	A ^{1.2}	CH ₂ SCH ₃	CH ₂ Cl
IA-1106	A ^{1.2}	(CH ₂) ₃ SCH ₃	CH ₂ Cl
IA-1107	A ^{1.2}	CH ₂ S(=O)CH ₃	CH ₂ Cl
IA-1108	A ^{1.2}	CH ₂ S(=O) ₂ CH ₃	CH ₂ Cl
IA-1109	A ^{1.2}	CH ₂ C(=O)CH ₃	CH ₂ Cl
IA-1110	A ^{1.2}	CH ₂ C(=O)CH ₂ CH ₃	CH ₂ Cl
IA-1111	A ^{1.2}	CH ₂ COOH	CH ₂ Cl
IA-1112	A ^{1.2}	CH ₂ COOCH ₃	CH ₂ Cl
IA-1113	A ^{1.2}	CH ₂ COOCH ₂ CH ₃	CH ₂ Cl
IA-1114	A ^{1.2}	cyclo-C ₃ H ₅	CH ₂ Cl
IA-1115	A ^{1.2}	cyclo-C ₄ H ₇	CH ₂ Cl
IA-1116	A ^{1.2}	cyclo-C ₅ H ₉	CH ₂ Cl
IA-1117	A ^{1.2}	cyclo-C ₆ H ₁₁	CH ₂ Cl
IA-1118	A ^{1.2}	C ₆ H ₅	CH ₂ Cl
IA-1119	A ^{1.2}	CH ₂ CH ₂ CN	CH ₂ CH ₂ CN
IA-1120	A ^{1.2}	CH ₂ CH ₂ Cl	CH ₂ CH ₂ CN
IA-1121	A ^{1.2}	CH ₂ CH ₂ OH	CH ₂ CH ₂ CN
IA-1122	A ^{1.2}	CH ₂ CH ₂ CH ₂ OH	CH ₂ CH ₂ CN
IA-1123	A ^{1.2}	CH ₂ CH(OH)CH ₂ OH	CH ₂ CH ₂ CN
IA-1124	A ^{1.2}	CH ₂ CH(OCH ₃) ₂	CH ₂ CH ₂ CN
IA-1125	A ^{1.2}	CH ₂ SCH ₃	CH ₂ CH ₂ CN

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No.	A	R ^e	R ^f
IA-1126	A ^{1.2}	(CH ₂) ₃ SCH ₃	CH ₂ CH ₂ CN
IA-1127	A ^{1.2}	CH ₂ S(=O)CH ₃	CH ₂ CH ₂ CN
IA-1128	A ^{1.2}	CH ₂ S(=O) ₂ CH ₃	CH ₂ CH ₂ CN
IA-1129	A ^{1.2}	CH ₂ C(=O)CH ₃	CH ₂ CH ₂ CN
IA-1130	A ^{1.2}	CH ₂ C(=O)CH ₂ CH ₃	CH ₂ CH ₂ CN
IA-1131	A ^{1.2}	CH ₂ COOH	CH ₂ CH ₂ CN
IA-1132	A ^{1.2}	CH ₂ COOCH ₃	CH ₂ CH ₂ CN
IA-1133	A ^{1.2}	CH ₂ COOCH ₂ CH ₃	CH ₂ CH ₂ CN
IA-1134	A ^{1.2}	cyclo-C ₃ H ₅	CH ₂ CH ₂ CN
IA-1135	A ^{1.2}	cyclo-C ₄ H ₇	CH ₂ CH ₂ CN
IA-1136	A ^{1.2}	cyclo-C ₅ H ₉	CH ₂ CH ₂ CN
IA-1137	A ^{1.2}	cyclo-C ₆ H ₁₁	CH ₂ CH ₂ CN
IA-1138	A ^{1.2}	C ₆ H ₅	CH ₂ CH ₂ CN
IA-1139	A ^{1.2}	CH ₂ CH ₂ Cl	CH ₂ CH ₂ Cl
IA-1140	A ^{1.2}	CH ₂ CH ₂ OH	CH ₂ CH ₂ Cl
IA-1141	A ^{1.2}	CH ₂ CH ₂ CH ₂ OH	CH ₂ CH ₂ Cl
IA-1142	A ^{1.2}	CH ₂ CH(OH)CH ₂ OH	CH ₂ CH ₂ Cl
IA-1143	A ^{1.2}	CH ₂ CH(OCH ₃) ₂	CH ₂ CH ₂ Cl
IA-1144	A ^{1.2}	CH ₂ SCH ₃	CH ₂ CH ₂ Cl
IA-1145	A ^{1.2}	(CH ₂) ₃ SCH ₃	CH ₂ CH ₂ Cl
IA-1146	A ^{1.2}	CH ₂ S(=O)CH ₃	CH ₂ CH ₂ Cl
IA-1147	A ^{1.2}	CH ₂ S(=O) ₂ CH ₃	CH ₂ CH ₂ Cl
IA-1148	A ^{1.2}	CH ₂ C(=O)CH ₃	CH ₂ CH ₂ Cl
IA-1149	A ^{1.2}	CH ₂ C(=O)CH ₂ CH ₃	CH ₂ CH ₂ Cl
IA-1150	A ^{1.2}	CH ₂ COOH	CH ₂ CH ₂ Cl
IA-1151	A ^{1.2}	CH ₂ COOCH ₃	CH ₂ CH ₂ Cl
IA-1152	A ^{1.2}	CH ₂ COOCH ₂ CH ₃	CH ₂ CH ₂ Cl
IA-1153	A ^{1.2}	cyclo-C ₃ H ₅	CH ₂ CH ₂ Cl
IA-1154	A ^{1.2}	cyclo-C ₄ H ₇	CH ₂ CH ₂ Cl
IA-1155	A ^{1.2}	cyclo-C ₅ H ₉	CH ₂ CH ₂ Cl
IA-1156	A ^{1.2}	cyclo-C ₆ H ₁₁	CH ₂ CH ₂ Cl
IA-1157	A ^{1.2}	C ₆ H ₅	CH ₂ CH ₂ Cl

No.	A	R ^e	R ^f
IA-1158	A ^{1.2}	CH ₂ CH ₂ OH	CH ₂ CH ₂ OH
IA-1159	A ^{1.2}	CH ₂ CH ₂ CH ₂ OH	CH ₂ CH ₂ OH
IA-1160	A ^{1.2}	CH ₂ CH(OH)CH ₂ OH	CH ₂ CH ₂ OH
IA-1161	A ^{1.2}	CH ₂ CH(OCH ₃) ₂	CH ₂ CH ₂ OH
IA-1162	A ^{1.2}	CH ₂ SCH ₃	CH ₂ CH ₂ OH
IA-1163	A ^{1.2}	(CH ₂) ₃ SCH ₃	CH ₂ CH ₂ OH
IA-1164	A ^{1.2}	CH ₂ S(=O)CH ₃	CH ₂ CH ₂ OH
IA-1165	A ^{1.2}	CH ₂ S(=O) ₂ CH ₃	CH ₂ CH ₂ OH
IA-1166	A ^{1.2}	CH ₂ C(=O)CH ₃	CH ₂ CH ₂ OH
IA-1167	A ^{1.2}	CH ₂ C(=O)CH ₂ CH ₃	CH ₂ CH ₂ OH
IA-1168	A ^{1.2}	CH ₂ COOH	CH ₂ CH ₂ OH
IA-1169	A ^{1.2}	CH ₂ COOCH ₃	CH ₂ CH ₂ OH
IA-1170	A ^{1.2}	CH ₂ COOCH ₂ CH ₃	CH ₂ CH ₂ OH
IA-1171	A ^{1.2}	cyclo-C ₃ H ₅	CH ₂ CH ₂ OH
IA-1172	A ^{1.2}	cyclo-C ₄ H ₇	CH ₂ CH ₂ OH
IA-1173	A ^{1.2}	cyclo-C ₅ H ₉	CH ₂ CH ₂ OH
IA-1174	A ^{1.2}	cyclo-C ₆ H ₁₁	CH ₂ CH ₂ OH
IA-1175	A ^{1.2}	C ₆ H ₅	CH ₂ CH ₂ OH
IA-1176	A ^{1.2}	CH ₂ CH ₂ CH ₂ OH	CH ₂ CH ₂ CH ₂ OH
IA-1177	A ^{1.2}	CH ₂ CH(OH)CH ₂ OH	CH ₂ CH ₂ CH ₂ OH
IA-1178	A ^{1.2}	CH ₂ CH(OCH ₃) ₂	CH ₂ CH ₂ CH ₂ OH
IA-1179	A ^{1.2}	CH ₂ SCH ₃	CH ₂ CH ₂ CH ₂ OH
IA-1180	A ^{1.2}	(CH ₂) ₃ SCH ₃	CH ₂ CH ₂ CH ₂ OH
IA-1181	A ^{1.2}	CH ₂ S(=O)CH ₃	CH ₂ CH ₂ CH ₂ OH
IA-1182	A ^{1.2}	CH ₂ S(=O) ₂ CH ₃	CH ₂ CH ₂ CH ₂ OH
IA-1183	A ^{1.2}	CH ₂ C(=O)CH ₃	CH ₂ CH ₂ CH ₂ OH
IA-1184	A ^{1.2}	CH ₂ C(=O)CH ₂ CH ₃	CH ₂ CH ₂ CH ₂ OH
IA-1185	A ^{1.2}	CH ₂ COOH	CH ₂ CH ₂ CH ₂ OH
IA-1186	A ^{1.2}	CH ₂ COOCH ₃	CH ₂ CH ₂ CH ₂ OH
IA-1187	A ^{1.2}	CH ₂ COOCH ₂ CH ₃	CH ₂ CH ₂ CH ₂ OH
IA-1188	A ^{1.2}	cyclo-C ₃ H ₅	CH ₂ CH ₂ CH ₂ OH
IA-1189	A ^{1.2}	cyclo-C ₄ H ₇	CH ₂ CH ₂ CH ₂ OH

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No.	A	R ^e	R ^f
IA-1190	A ^{1.2}	cyclo-C ₅ H ₉	CH ₂ CH ₂ CH ₂ OH
IA-1191	A ^{1.2}	cyclo-C ₆ H ₁₁	CH ₂ CH ₂ CH ₂ OH
IA-1192	A ^{1.2}	C ₆ H ₅	CH ₂ CH ₂ CH ₂ OH
IA-1193	A ^{1.2}	CH ₂ CH(OH)CH ₂ OH	CH ₂ CH(OH)CH ₂ OH
IA-1194	A ^{1.2}	CH ₂ CH(OCH ₃) ₂	CH ₂ CH(OH)CH ₂ OH
IA-1195	A ^{1.2}	CH ₂ SCH ₃	CH ₂ CH(OH)CH ₂ OH
IA-1196	A ^{1.2}	(CH ₂) ₃ SCH ₃	CH ₂ CH(OH)CH ₂ OH
IA-1197	A ^{1.2}	CH ₂ S(=O)CH ₃	CH ₂ CH(OH)CH ₂ OH
IA-1198	A ^{1.2}	CH ₂ S(=O) ₂ CH ₃	CH ₂ CH(OH)CH ₂ OH
IA-1199	A ^{1.2}	CH ₂ C(=O)CH ₃	CH ₂ CH(OH)CH ₂ OH
IA-1200	A ^{1.2}	CH ₂ C(=O)CH ₂ CH ₃	CH ₂ CH(OH)CH ₂ OH
IA-1201	A ^{1.2}	CH ₂ COOH	CH ₂ CH(OH)CH ₂ OH
IA-1202	A ^{1.2}	CH ₂ COOCH ₃	CH ₂ CH(OH)CH ₂ OH
IA-1203	A ^{1.2}	CH ₂ COOCH ₂ CH ₃	CH ₂ CH(OH)CH ₂ OH
IA-1204	A ^{1.2}	cyclo-C ₃ H ₅	CH ₂ CH(OH)CH ₂ OH
IA-1205	A ^{1.2}	cyclo-C ₄ H ₇	CH ₂ CH(OH)CH ₂ OH
IA-1206	A ^{1.2}	cyclo-C ₅ H ₉	CH ₂ CH(OH)CH ₂ OH
IA-1207	A ^{1.2}	cyclo-C ₆ H ₁₁	CH ₂ CH(OH)CH ₂ OH
IA-1208	A ^{1.2}	C ₆ H ₅	CH ₂ CH(OH)CH ₂ OH
IA-1209	A ^{1.2}	CH ₂ CH(OCH ₃) ₂	CH ₂ CH(OCH ₃) ₂
IA-1210	A ^{1.2}	CH ₂ SCH ₃	CH ₂ CH(OCH ₃) ₂
IA-1211	A ^{1.2}	(CH ₂) ₃ SCH ₃	CH ₂ CH(OCH ₃) ₂
IA-1212	A ^{1.2}	CH ₂ S(=O)CH ₃	CH ₂ CH(OCH ₃) ₂
IA-1213	A ^{1.2}	CH ₂ S(=O) ₂ CH ₃	CH ₂ CH(OCH ₃) ₂
IA-1214	A ^{1.2}	CH ₂ C(=O)CH ₃	CH ₂ CH(OCH ₃) ₂
IA-1215	A ^{1.2}	CH ₂ C(=O)CH ₂ CH ₃	CH ₂ CH(OCH ₃) ₂
IA-1216	A ^{1.2}	CH ₂ COOH	CH ₂ CH(OCH ₃) ₂
IA-1217	A ^{1.2}	CH ₂ COOCH ₃	CH ₂ CH(OCH ₃) ₂
IA-1218	A ^{1.2}	CH ₂ COOCH ₂ CH ₃	CH ₂ CH(OCH ₃) ₂
IA-1219	A ^{1.2}	cyclo-C ₃ H ₅	CH ₂ CH(OCH ₃) ₂
IA-1220	A ^{1.2}	cyclo-C ₄ H ₇	CH ₂ CH(OCH ₃) ₂
IA-1221	A ^{1.2}	cyclo-C ₅ H ₉	CH ₂ CH(OCH ₃) ₂

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No.	A	R ^e	R ^f
IA-1222	A ^{1.2}	cyclo-C ₆ H ₁₁	CH ₂ CH(OCH ₃) ₂
IA-1223	A ^{1.2}	C ₆ H ₅	CH ₂ CH(OCH ₃) ₂
IA-1224	A ^{1.2}	CH ₂ SCH ₃	CH ₂ SCH ₃
IA-1225	A ^{1.2}	(CH ₂) ₃ SCH ₃	CH ₂ SCH ₃
IA-1226	A ^{1.2}	CH ₂ S(=O)CH ₃	CH ₂ SCH ₃
IA-1227	A ^{1.2}	CH ₂ S(=O) ₂ CH ₃	CH ₂ SCH ₃
IA-1228	A ^{1.2}	CH ₂ C(=O)CH ₃	CH ₂ SCH ₃
IA-1229	A ^{1.2}	CH ₂ C(=O)CH ₂ CH ₃	CH ₂ SCH ₃
IA-1230	A ^{1.2}	CH ₂ COOH	CH ₂ SCH ₃
IA-1231	A ^{1.2}	CH ₂ COOCH ₃	CH ₂ SCH ₃
IA-1232	A ^{1.2}	CH ₂ COOCH ₂ CH ₃	CH ₂ SCH ₃
IA-1233	A ^{1.2}	cyclo-C ₃ H ₅	CH ₂ SCH ₃
IA-1234	A ^{1.2}	cyclo-C ₄ H ₇	CH ₂ SCH ₃
IA-1235	A ^{1.2}	cyclo-C ₅ H ₉	CH ₂ SCH ₃
IA-1236	A ^{1.2}	cyclo-C ₆ H ₁₁	CH ₂ SCH ₃
IA-1237	A ^{1.2}	C ₆ H ₅	CH ₂ SCH ₃
IA-1238	A ^{1.2}	(CH ₂) ₃ SCH ₃	(CH ₂) ₃ SCH ₃
IA-1239	A ^{1.2}	CH ₂ S(=O)CH ₃	(CH ₂) ₃ SCH ₃
IA-1240	A ^{1.2}	CH ₂ S(=O) ₂ CH ₃	(CH ₂) ₃ SCH ₃
IA-1241	A ^{1.2}	CH ₂ C(=O)CH ₃	(CH ₂) ₃ SCH ₃
IA-1242	A ^{1.2}	CH ₂ C(=O)CH ₂ CH ₃	(CH ₂) ₃ SCH ₃
IA-1243	A ^{1.2}	CH ₂ COOH	(CH ₂) ₃ SCH ₃
IA-1244	A ^{1.2}	CH ₂ COOCH ₃	(CH ₂) ₃ SCH ₃
IA-1245	A ^{1.2}	CH ₂ COOCH ₂ CH ₃	(CH ₂) ₃ SCH ₃
IA-1246	A ^{1.2}	cyclo-C ₃ H ₅	(CH ₂) ₃ SCH ₃
IA-1247	A ^{1.2}	cyclo-C ₄ H ₇	(CH ₂) ₃ SCH ₃
IA-1248	A ^{1.2}	cyclo-C ₅ H ₉	(CH ₂) ₃ SCH ₃
IA-1249	A ^{1.2}	cyclo-C ₆ H ₁₁	(CH ₂) ₃ SCH ₃
IA-1250	A ^{1.2}	C ₆ H ₅	(CH ₂) ₃ SCH ₃
IA-1251	A ^{1.2}	CH ₂ S(=O)CH ₃	CH ₂ S(=O)CH ₃
IA-1252	A ^{1.2}	CH ₂ S(=O) ₂ CH ₃	CH ₂ S(=O)CH ₃
IA-1253	A ^{1.2}	CH ₂ C(=O)CH ₃	CH ₂ S(=O)CH ₃

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No.	A	R ^e	R ^f
IA-1254	A ^{1.2}	CH ₂ C(=O)CH ₂ CH ₃	CH ₂ S(=O)CH ₃
IA-1255	A ^{1.2}	CH ₂ COOH	CH ₂ S(=O)CH ₃
IA-1256	A ^{1.2}	CH ₂ COOCH ₃	CH ₂ S(=O)CH ₃
IA-1257	A ^{1.2}	CH ₂ COOCH ₂ CH ₃	CH ₂ S(=O)CH ₃
IA-1258	A ^{1.2}	cyclo-C ₃ H ₅	CH ₂ S(=O)CH ₃
IA-1259	A ^{1.2}	cyclo-C ₄ H ₇	CH ₂ S(=O)CH ₃
IA-1260	A ^{1.2}	cyclo-C ₅ H ₉	CH ₂ S(=O)CH ₃
IA-1261	A ^{1.2}	cyclo-C ₆ H ₁₁	CH ₂ S(=O)CH ₃
IA-1262	A ^{1.2}	C ₆ H ₅	CH ₂ S(=O)CH ₃
IA-1263	A ^{1.2}	CH ₂ S(=O) ₂ CH ₃	CH ₂ S(=O) ₂ CH ₃
IA-1264	A ^{1.2}	CH ₂ C(=O)CH ₃	CH ₂ S(=O) ₂ CH ₃
IA-1265	A ^{1.2}	CH ₂ C(=O)CH ₂ CH ₃	CH ₂ S(=O) ₂ CH ₃
IA-1266	A ^{1.2}	CH ₂ COOH	CH ₂ S(=O) ₂ CH ₃
IA-1267	A ^{1.2}	CH ₂ COOCH ₃	CH ₂ S(=O) ₂ CH ₃
IA-1268	A ^{1.2}	CH ₂ COOCH ₂ CH ₃	CH ₂ S(=O) ₂ CH ₃
IA-1269	A ^{1.2}	cyclo-C ₃ H ₅	CH ₂ S(=O) ₂ CH ₃
IA-1270	A ^{1.2}	cyclo-C ₄ H ₇	CH ₂ S(=O) ₂ CH ₃
IA-1271	A ^{1.2}	cyclo-C ₅ H ₉	CH ₂ S(=O) ₂ CH ₃
IA-1272	A ^{1.2}	cyclo-C ₆ H ₁₁	CH ₂ S(=O) ₂ CH ₃
IA-1273	A ^{1.2}	C ₆ H ₅	CH ₂ S(=O) ₂ CH ₃
IA-1274	A ^{1.2}	CH ₂ C(=O)CH ₃	CH ₂ C(=O)CH ₃
IA-1275	A ^{1.2}	CH ₂ C(=O)CH ₂ CH ₃	CH ₂ C(=O)CH ₃
IA-1276	A ^{1.2}	CH ₂ COOH	CH ₂ C(=O)CH ₃
IA-1277	A ^{1.2}	CH ₂ COOCH ₃	CH ₂ C(=O)CH ₃
IA-1278	A ^{1.2}	CH ₂ COOCH ₂ CH ₃	CH ₂ C(=O)CH ₃
IA-1279	A ^{1.2}	cyclo-C ₃ H ₅	CH ₂ C(=O)CH ₃
IA-1280	A ^{1.2}	cyclo-C ₄ H ₇	CH ₂ C(=O)CH ₃
IA-1281	A ^{1.2}	cyclo-C ₅ H ₉	CH ₂ C(=O)CH ₃
IA-1282	A ^{1.2}	cyclo-C ₆ H ₁₁	CH ₂ C(=O)CH ₃
IA-1283	A ^{1.2}	C ₆ H ₅	CH ₂ C(=O)CH ₃
IA-1284	A ^{1.2}	CH ₂ C(=O)CH ₂ CH ₃	CH ₂ C(=O)CH ₂ CH ₃
IA-1285	A ^{1.2}	CH ₂ COOH	CH ₂ C(=O)CH ₂ CH ₃

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No.	A	R ^e	R ^f
IA-1286	A ^{1.2}	CH ₂ COOCH ₃	CH ₂ C(=O)CH ₂ CH ₃
IA-1287	A ^{1.2}	CH ₂ COOCH ₂ CH ₃	CH ₂ C(=O)CH ₂ CH ₃
IA-1288	A ^{1.2}	cyclo-C ₃ H ₅	CH ₂ C(=O)CH ₂ CH ₃
IA-1289	A ^{1.2}	cyclo-C ₄ H ₇	CH ₂ C(=O)CH ₂ CH ₃
IA-1290	A ^{1.2}	cyclo-C ₅ H ₉	CH ₂ C(=O)CH ₂ CH ₃
IA-1291	A ^{1.2}	cyclo-C ₆ H ₁₁	CH ₂ C(=O)CH ₂ CH ₃
IA-1292	A ^{1.2}	C ₆ H ₅	CH ₂ C(=O)CH ₂ CH ₃
IA-1293	A ^{1.2}	CH ₂ COOH	CH ₂ COOH
IA-1294	A ^{1.2}	CH ₂ COOCH ₃	CH ₂ COOH
IA-1295	A ^{1.2}	CH ₂ COOCH ₂ CH ₃	CH ₂ COOH
IA-1296	A ^{1.2}	cyclo-C ₃ H ₅	CH ₂ COOH
IA-1297	A ^{1.2}	cyclo-C ₄ H ₇	CH ₂ COOH
IA-1298	A ^{1.2}	cyclo-C ₅ H ₉	CH ₂ COOH
IA-1299	A ^{1.2}	cyclo-C ₆ H ₁₁	CH ₂ COOH
IA-1300	A ^{1.2}	C ₆ H ₅	CH ₂ COOH
IA-1301	A ^{1.2}	CH ₂ COOCH ₃	CH ₂ COOCH ₃
IA-1302	A ^{1.2}	CH ₂ COOCH ₂ CH ₃	CH ₂ COOCH ₃
IA-1303	A ^{1.2}	cyclo-C ₃ H ₅	CH ₂ COOCH ₃
IA-1304	A ^{1.2}	cyclo-C ₄ H ₇	CH ₂ COOCH ₃
IA-1305	A ^{1.2}	cyclo-C ₅ H ₉	CH ₂ COOCH ₃
IA-1306	A ^{1.2}	cyclo-C ₆ H ₁₁	CH ₂ COOCH ₃
IA-1307	A ^{1.2}	C ₆ H ₅	CH ₂ COOCH ₃
IA-1308	A ^{1.2}	CH ₂ COOCH ₂ CH ₃	CH ₂ COOCH ₂ CH ₃
IA-1309	A ^{1.2}	cyclo-C ₃ H ₅	CH ₂ COOCH ₂ CH ₃
IA-1310	A ^{1.2}	cyclo-C ₄ H ₇	CH ₂ COOCH ₂ CH ₃
IA-1311	A ^{1.2}	cyclo-C ₅ H ₉	CH ₂ COOCH ₂ CH ₃
IA-1312	A ^{1.2}	cyclo-C ₆ H ₁₁	CH ₂ COOCH ₂ CH ₃
IA-1313	A ^{1.2}	C ₆ H ₅	CH ₂ COOCH ₂ CH ₃
IA-1314	A ^{1.2}	cyclo-C ₃ H ₅	cyclo-C ₃ H ₅
IA-1315	A ^{1.2}	cyclo-C ₄ H ₇	cyclo-C ₃ H ₅
IA-1316	A ^{1.2}	cyclo-C ₅ H ₉	cyclo-C ₃ H ₅
IA-1317	A ^{1.2}	cyclo-C ₆ H ₁₁	cyclo-C ₃ H ₅

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No.	A	R ^e	R ^f
IA-1318	A ^{1.2}	C ₆ H ₅	cyclo-C ₃ H ₅
IA-1319	A ^{1.2}	cyclo-C ₄ H ₇	cyclo-C ₄ H ₇
IA-1320	A ^{1.2}	cyclo-C ₅ H ₉	cyclo-C ₄ H ₇
IA-1321	A ^{1.2}	cyclo-C ₆ H ₁₁	cyclo-C ₄ H ₇
IA-1322	A ^{1.2}	C ₆ H ₅	cyclo-C ₄ H ₇
IA-1323	A ^{1.2}	cyclo-C ₅ H ₉	cyclo-C ₅ H ₉
IA-1324	A ^{1.2}	cyclo-C ₆ H ₁₁	cyclo-C ₅ H ₉
IA-1325	A ^{1.2}	C ₆ H ₅	cyclo-C ₅ H ₉
IA-1326	A ^{1.2}	cyclo-C ₆ H ₁₁	cyclo-C ₆ H ₁₁
IA-1327	A ^{1.2}	C ₆ H ₅	cyclo-C ₆ H ₁₁
IA-1328	A ^{1.2}	C ₆ H ₅	C ₆ H ₅

Table 883

Compounds of the formula IA (as defined above) wherein Q¹ denotes hydrogen, Q³ denotes CF₃, and A in each case corresponds to a radical of Table D.

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Table 884

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes bromine, and A in each case corresponds to a radical of Table D.

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Table 885

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes chlorine, and A in each case corresponds to a radical of Table D.

Table 886

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Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₃, and A in each case corresponds to a radical of Table D.

Table 887

20

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OCH₃, and A in each case corresponds to a radical of Table D.

Table 888

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Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OCHCH₂, and A in each case corresponds to a radical of Table D.

Table 889

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Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes ethoxy, and A in each case corresponds to a radical of Table D.

Table 890

- 5 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OCH₂CHFOCH₃, and A in each case corresponds to a radical of Table D.

Table 891

- 10 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OCH₂CH=CH₂, and A in each case corresponds to a radical of Table D.

Table 892

- 15 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OCH₂CCH, and A in each case corresponds to a radical of Table D.

Table 893

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₂OCH₃, and A in each case corresponds to a radical of Table D.

20 Table 894

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₂OCH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 895

- 25 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₂SCH₃, and A in each case corresponds to a radical of Table D.

Table 896

- 30 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₂SCH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 897

- 35 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₂S(=O)CH₃, and A in each case corresponds to a radical of Table D.

Table 898

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₂S(=O)CH₂CH₃, and A in each case corresponds to a radical of Table D.

40 Table 899

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₂S(=O)₂CH₃, and A in each case corresponds to a radical of Table D.

Table 900

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₂S(=O)₂CH₂CH₃, and A in each case corresponds to a radical of Table D.

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Table 901

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes -OS(=O)₂CH₃, and A in each case corresponds to a radical of Table D.

10 Table 902

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes -OS(=O)₂CH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 903

15 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes -OS(=O)₂CH₂CF₃, and A in each case corresponds to a radical of Table D.

Table 904

20 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes -OS(=O)₂CClF₂, and A in each case corresponds to a radical of Table D.

Table 905

25 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OC(=O)CF₃, and A in each case corresponds to a radical of Table D.

Table 906

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes NHCH₂CF₃, and A in each case corresponds to a radical of Table D.

30 Table 907

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OCH₂-cyclopropyl, and A in each case corresponds to a radical of Table D.

Table 908

35 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OCH₂C(Cl)=CH₂, and A in each case corresponds to a radical of Table D.

Table 909

40 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OCH₂CH=CF₂, and A in each case corresponds to a radical of Table D.

Table 910

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes NHS(=O)₂CF₃, and A in each case corresponds to a radical of Table D.

5 Table 911

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes NHC(=O)CF₃, and A in each case corresponds to a radical of Table D.

Table 912

10 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OCH₂CN, and A in each case corresponds to a radical of Table D.

Table 913

15 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes OCH₂NO₂, and A in each case corresponds to a radical of Table D.

Table 914

20 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes cyclopropyloxy, and A in each case corresponds to a radical of Table D.

Table 915

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₂OCHF₂, and A in each case corresponds to a radical of Table D.

25 Table 916

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH₂S(=O)₂CHF₂, and A in each case corresponds to a radical of Table D.

Table 917

30 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH=NOCH₃, and A in each case corresponds to a radical of Table D.

Table 918

35 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH=NOCH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 919

40 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH=NOCH(CH₃)₂ and A in each case corresponds to a radical of Table D.

Table 920

Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes CH=NOC(CH₃)₃, and A in each case corresponds to a radical of Table D.

Table 921

- 5 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes C(CH₃)=NOCH₃, and A in each case corresponds to a radical of Table D.

Table 922

- 10 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes C(CH₃)=NOCH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 923

- 15 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes C(CH₃)=NOCH(CH₃)₂, and A in each case corresponds to a radical of Table D.

Table 924

- 20 Compounds of the formula IA wherein Q¹ denotes hydrogen, Q³ denotes C(CH₃)=NOC(CH₃)₃, and A in each case corresponds to a radical of Table D.

Table 925

- 25 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CF₃, and A in each case corresponds to a radical of Table D.

Table 926

- 30 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes bromine, and A in each case corresponds to a radical of Table D.

Table 927

- 35 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes chlorine, and A in each case corresponds to a radical of Table D.

Table 928

- 40 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH₃, and A in each case corresponds to a radical of Table D.

Table 929

- 45 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OCH₃, and A in each case corresponds to a radical of Table D.

Table 930

- 50 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OCHCH₂, and A in each case corresponds to a radical of Table D.

Table 931

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes ethoxy, and A in each case corresponds to a radical of Table D.

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Table 932

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OCH₂CHFOCH₃, and A in each case corresponds to a radical of Table D.

10 Table 933

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OCH₂CH=CH₂, and A in each case corresponds to a radical of Table D.

Table 934

15 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OCH₂CCH, and A in each case corresponds to a radical of Table D.

Table 935

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH₂OCH₃, and
20 A in each case corresponds to a radical of Table D.

Table 936

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH₂OCH₂CH₃, and A in each case corresponds to a radical of Table D.

25

Table 937

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH₂SCH₃, and A in each case corresponds to a radical of Table D.

30 Table 938

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH₂SCH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 939

35 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH₂S(=O)CH₃, and A in each case corresponds to a radical of Table D.

Table 940

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes
40 CH₂S(=O)CH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 941

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH₂S(=O)₂CH₃, and A in each case corresponds to a radical of Table D.

Table 942

- 5 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH₂S(=O)₂CH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 943

- 10 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes -OS(=O)₂CH₃, and A in each case corresponds to a radical of Table D.

Table 944

- 15 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes -OS(=O)₂CH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 945

- 20 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes -OS(=O)₂CH₂CF₃, and A in each case corresponds to a radical of Table D.

Table 946

- 25 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes -OS(=O)₂CClF₂, and A in each case corresponds to a radical of Table D.

Table 947

- 30 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OC(=O)CF₃, and A in each case corresponds to a radical of Table D.

Table 948

- 35 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes NHCH₂CF₃, and A in each case corresponds to a radical of Table D.

Table 949

- 40 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OCH₂-cyclopropyl, and A in each case corresponds to a radical of Table D.

Table 950

- 45 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OCH₂C(Cl)=CH₂, and A in each case corresponds to a radical of Table D.

Table 951

- 50 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OCH₂CH=CF₂, and A in each case corresponds to a radical of Table D.

Table 952

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes NHS(=O)₂CF₃, and A in each case corresponds to a radical of Table D.

5

Table 953

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes NHC(=O)CF₃, and A in each case corresponds to a radical of Table D.

10 Table 954

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OCH₂CN, and A in each case corresponds to a radical of Table D.

Table 955

15 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes OCH₂NO₂, and A in each case corresponds to a radical of Table D.

Table 956

20 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes cyclopropyloxy, and A in each case corresponds to a radical of Table D.

Table 957

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH₂OCHF₂, and A in each case corresponds to a radical of Table D.

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Table 958

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH₂S(=O)₂CHF₂, and A in each case corresponds to a radical of Table D.

30 Table 959

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH=NOCH₃, and A in each case corresponds to a radical of Table D.

Table 960

35 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH=NOCH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 961

40 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH=NOCH(CH₃)₂ and A in each case corresponds to a radical of Table D.

Table 962

Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes CH=NOC(CH₃)₃, and A in each case corresponds to a radical of Table D.

Table 963

- 5 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes C(CH₃)=NOCH₃, and A in each case corresponds to a radical of Table D.

Table 964

- 10 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes C(CH₃)=NOCH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 965

- 15 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes C(CH₃)=NOCH(CH₃)₂, and A in each case corresponds to a radical of Table D.

Table 966

- 20 Compounds of the formula IA wherein Q¹ denotes chlorine, Q³ denotes C(CH₃)=NOC(CH₃)₃, and A in each case corresponds to a radical of Table D.

Table 967

- 25 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CF₃, and A in each case corresponds to a radical of Table D.

Table 968

- 30 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes bromine, and A in each case corresponds to a radical of Table D.

Table 969

- 35 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes chlorine, and A in each case corresponds to a radical of Table D.

Table 970

- 40 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₃, and A in each case corresponds to a radical of Table D.

Table 971

- 45 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OCH₃, and A in each case corresponds to a radical of Table D.

Table 972

- 50 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OCHCH₂, and A in each case corresponds to a radical of Table D.

Table 973

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes ethoxy, and A in each case corresponds to a radical of Table D.

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Table 974

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OCH₂CHFOCH₃, and A in each case corresponds to a radical of Table D.

10 Table 975

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OCH₂CH=CH₂, and A in each case corresponds to a radical of Table D.

Table 976

15 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OCH₂CCH, and A in each case corresponds to a radical of Table D.

Table 977

20 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₂OCH₃, and A in each case corresponds to a radical of Table D.

Table 978

25 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₂OCH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 979

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₂SCH₃, and A in each case corresponds to a radical of Table D.

30 Table 980

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₂SCH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 981

35 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₂S(=O)CH₃, and A in each case corresponds to a radical of Table D.

Table 982

40 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₂S(=O)CH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 983

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Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₂S(=O)₂CH₃, and A in each case corresponds to a radical of Table D.

Table 984

- 5 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₂S(=O)₂CH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 985

- 10 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes -OS(=O)₂CH₃, and A in each case corresponds to a radical of Table D.

Table 986

- 15 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes -OS(=O)₂CH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 987

- 20 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes -OS(=O)₂CH₂CF₃, and A in each case corresponds to a radical of Table D.

Table 988

- 25 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes -OS(=O)₂CClF₂, and A in each case corresponds to a radical of Table D.

Table 989

- 30 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OC(=O)CF₃, and A in each case corresponds to a radical of Table D.

Table 990

- 35 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes NHCH₂CF₃, and A in each case corresponds to a radical of Table D.

Table 991

- 40 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OCH₂-cyclopropyl, and A in each case corresponds to a radical of Table D.

Table 992

- 45 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OCH₂C(Cl)=CH₂, and A in each case corresponds to a radical of Table D.

Table 993

- 50 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OCH₂CH=CF₂, and A in each case corresponds to a radical of Table D.

Table 994

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes NHS(=O)₂CF₃, and A in each case corresponds to a radical of Table D.

5

Table 995

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes NHC(=O)CF₃, and A in each case corresponds to a radical of Table D.

10 Table 996

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OCH₂CN, and A in each case corresponds to a radical of Table D.

Table 997

15 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes OCH₂NO₂, and A in each case corresponds to a radical of Table D.

Table 998

20 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes cyclopropyloxy, and A in each case corresponds to a radical of Table D.

Table 999

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₂OCHF₂, and A in each case corresponds to a radical of Table D.

25

Table 1000

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH₂S(=O)₂CHF₂, and A in each case corresponds to a radical of Table D.

30 Table 1001

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH=NOCH₃, and A in each case corresponds to a radical of Table D.

Table 1002

35 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH=NOCH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 1003

40 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH=NOCH(CH₃)₂ and A in each case corresponds to a radical of Table D.

Table 1004

Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes CH=NOC(CH₃)₃, and A in each case corresponds to a radical of Table D.

Table 1005

- 5 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes C(CH₃)=NOCH₃, and A in each case corresponds to a radical of Table D.

Table 1006

- 10 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes C(CH₃)=NOCH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 1007

- 15 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes C(CH₃)=NOCH(CH₃)₂, and A in each case corresponds to a radical of Table D.

Table 1008

- 20 Compounds of the formula IA wherein Q¹ denotes bromine, Q³ denotes C(CH₃)=NOC(CH₃)₃, and A in each case corresponds to a radical of Table D.

Table 1009

- 25 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CF₃, and A in each case corresponds to a radical of Table D.

Table 1010

- 30 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes bromine, and A in each case corresponds to a radical of Table D.

Table 1011

- 35 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes chlorine, and A in each case corresponds to a radical of Table D.

Table 1012

- 40 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH₃, and A in each case corresponds to a radical of Table D.

Table 1013

- 45 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OCH₃, and A in each case corresponds to a radical of Table D.

Table 1014

- 50 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OCHCH₂, and A in each case corresponds to a radical of Table D.

Table 1015

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes ethoxy, and A in each case corresponds to a radical of Table D.

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Table 1016

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OCH₂CHFOCH₃, and A in each case corresponds to a radical of Table D.

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Table 1017

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OCH₂CH=CH₂, and A in each case corresponds to a radical of Table D.

Table 1018

15 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OCH₂CCH, and A in each case corresponds to a radical of Table D.

Table 1019

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH₂OCH₃, and
20 A in each case corresponds to a radical of Table D.

Table 1020

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH₂OCH₂CH₃, and A in each case corresponds to a radical of Table D.

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Table 1021

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH₂SCH₃, and A in each case corresponds to a radical of Table D.

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Table 1022

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH₂SCH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 1023

35 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH₂S(=O)CH₃, and A in each case corresponds to a radical of Table D.

Table 1024

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes
40 CH₂S(=O)CH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 1025

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Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH₂S(=O)₂CH₃, and A in each case corresponds to a radical of Table D.

Table 1026

- 5 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH₂S(=O)₂CH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 1027

- 10 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes -OS(=O)₂CH₃, and A in each case corresponds to a radical of Table D.

Table 1028

- 15 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes -OS(=O)₂CH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 1029

- Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes -OS(=O)₂CH₂CF₃, and A in each case corresponds to a radical of Table D.

20 Table 1030

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes -OS(=O)₂CClF₂, and A in each case corresponds to a radical of Table D.

Table 1031

- 25 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OC(=O)CF₃, and A in each case corresponds to a radical of Table D.

Table 1032

- 30 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes NHCH₂CF₃, and A in each case corresponds to a radical of Table D.

Table 1033

- 35 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OCH₂-cyclopropyl, and A in each case corresponds to a radical of Table D.

Table 1034

- Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OCH₂C(Cl)=CH₂, and A in each case corresponds to a radical of Table D.

40 Table 1035

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OCH₂CH=CF₂, and A in each case corresponds to a radical of Table D.

Table 1036

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes NHS(=O)₂CF₃, and A in each case corresponds to a radical of Table D.

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Table 1037

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes NHC(=O)CF₃, and A in each case corresponds to a radical of Table D.

10 Table 1038

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OCH₂CN, and A in each case corresponds to a radical of Table D.

Table 1039

15 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes OCH₂NO₂, and A in each case corresponds to a radical of Table D.

Table 1040

20 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes cyclopropyloxy, and A in each case corresponds to a radical of Table D.

Table 1041

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH₂OCHF₂, and A in each case corresponds to a radical of Table D.

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Table 1042

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH₂S(=O)₂CHF₂, and A in each case corresponds to a radical of Table D.

30 Table 1043

Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH=NOCH₃, and A in each case corresponds to a radical of Table D.

Table 1044

35 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH=NOCH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 1045

40 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH=NOCH(CH₃)₂ and A in each case corresponds to a radical of Table D.

Table 1046

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Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes CH=NOC(CH₃)₃, and A in each case corresponds to a radical of Table D.

Table 1047

- 5 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes C(CH₃)=NOCH₃, and A in each case corresponds to a radical of Table D.

Table 1048

- 10 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes C(CH₃)=NOCH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 1049

- 15 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes C(CH₃)=NOCH(CH₃)₂, and A in each case corresponds to a radical of Table D.

Table 1050

- 20 Compounds of the formula IA wherein Q¹ denotes fluorine, Q³ denotes C(CH₃)=NOC(CH₃)₃, and A in each case corresponds to a radical of Table D.

Table 1051

- 25 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CF₃, and A in each case corresponds to a radical of Table D.

Table 1052

- 30 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes bromine, and A in each case corresponds to a radical of Table D.

Table 1053

- 35 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes chlorine, and A in each case corresponds to a radical of Table D.

Table 1054

- 40 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₃, and A in each case corresponds to a radical of Table D.

Table 1055

- 45 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OCH₃, and A in each case corresponds to a radical of Table D.

Table 1056

- 50 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OCHCH₂, and A in each case corresponds to a radical of Table D.

Table 1057

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes ethoxy, and A in each case corresponds to a radical of Table D.

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Table 1058

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OCH₂CHFOCH₃, and A in each case corresponds to a radical of Table D.

10 Table 1059

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OCH₂CH=CH₂, and A in each case corresponds to a radical of Table D.

Table 1060

15 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OCH₂CCH, and A in each case corresponds to a radical of Table D.

Table 1061

20 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₂OCH₃, and A in each case corresponds to a radical of Table D.

Table 1062

25 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₂OCH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 1063

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₂SCH₃, and A in each case corresponds to a radical of Table D.

30 Table 1064

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₂SCH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 1065

35 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₂S(=O)CH₃, and A in each case corresponds to a radical of Table D.

Table 1066

40 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₂S(=O)CH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 1067

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Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₂S(=O)₂CH₃, and A in each case corresponds to a radical of Table D.

Table 1068

- 5 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₂S(=O)₂CH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 1069

- 10 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes -OS(=O)₂CH₃, and A in each case corresponds to a radical of Table D.

Table 1070

- 15 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes -OS(=O)₂CH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 1071

- Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes -OS(=O)₂CH₂CF₃, and A in each case corresponds to a radical of Table D.

20 Table 1072

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes -OS(=O)₂CClF₂, and A in each case corresponds to a radical of Table D.

Table 1073

- 25 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OC(=O)CF₃, and A in each case corresponds to a radical of Table D.

Table 1074

- 30 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes NHCH₂CF₃, and A in each case corresponds to a radical of Table D.

Table 1075

- 35 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OCH₂-cyclopropyl, and A in each case corresponds to a radical of Table D.

Table 1076

- Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OCH₂C(Cl)=CH₂, and A in each case corresponds to a radical of Table D.

40 Table 1077

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OCH₂CH=CF₂, and A in each case corresponds to a radical of Table D.

Table 1078

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes NHS(=O)₂CF₃, and A in each case corresponds to a radical of Table D.

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Table 1079

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes NHC(=O)CF₃, and A in each case corresponds to a radical of Table D.

10 Table 1080

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OCH₂CN, and A in each case corresponds to a radical of Table D.

Table 1081

15 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes OCH₂NO₂, and A in each case corresponds to a radical of Table D.

Table 1082

20 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes cyclopropyloxy, and A in each case corresponds to a radical of Table D.

Table 1083

25 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₂OCHF₂, and A in each case corresponds to a radical of Table D.

Table 1084

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH₂S(=O)₂CHF₂, and A in each case corresponds to a radical of Table D.

30 Table 1085

Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH=NOCH₃, and A in each case corresponds to a radical of Table D.

Table 1086

35 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH=NOCH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 1087

40 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH=NOCH(CH₃)₂ and A in each case corresponds to a radical of Table D.

Table 1088

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Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes CH=NOC(CH₃)₃, and A in each case corresponds to a radical of Table D.

Table 1089

- 5 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes C(CH₃)=NOCH₃, and A in each case corresponds to a radical of Table D.

Table 1090

- 10 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes C(CH₃)=NOCH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 1091

- 15 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes C(CH₃)=NOCH(CH₃)₂, and A in each case corresponds to a radical of Table D.

Table 1092

- 20 Compounds of the formula IA wherein Q¹ denotes iodine, Q³ denotes C(CH₃)=NOC(CH₃)₃, and A in each case corresponds to a radical of Table D.
- Table 1093
- Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CF₃, and A in each case corresponds to a radical of Table D.
- Table 1094
- 25 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes bromine, and A in each case corresponds to a radical of Table D.

Table 1095

- 30 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes chlorine, and A in each case corresponds to a radical of Table D.

Table 1096

- 35 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₃, and A in each case corresponds to a radical of Table D.

Table 1097

- 40 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OCH₃, and A in each case corresponds to a radical of Table D.
- Table 1098
- Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OCHCH₂, and A in each case corresponds to a radical of Table D.

Table 1099

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes ethoxy, and A in each case corresponds to a radical of Table D.

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Table 1100

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OCH₂CHFOCH₃, and A in each case corresponds to a radical of Table D.

10 Table 1101

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OCH₂CH=CH₂, and A in each case corresponds to a radical of Table D.

Table 1102

15 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OCH₂CCH, and A in each case corresponds to a radical of Table D.

Table 1103

20 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₂OCH₃, and A in each case corresponds to a radical of Table D.

Table 1104

25 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₂OCH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 1105

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₂SCH₃, and A in each case corresponds to a radical of Table D.

30 Table 1106

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₂SCH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 1107

35 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₂S(=O)CH₃, and A in each case corresponds to a radical of Table D.

Table 1108

40 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₂S(=O)CH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 1109

169

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₂S(=O)₂CH₃, and A in each case corresponds to a radical of Table D.

Table 1110

- 5 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₂S(=O)₂CH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 1111

- 10 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes -OS(=O)₂CH₃, and A in each case corresponds to a radical of Table D.

Table 1112

- 15 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes -OS(=O)₂CH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 1113

- Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes -OS(=O)₂CH₂CF₃, and A in each case corresponds to a radical of Table D.

20 Table 1114

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes -OS(=O)₂CClF₂, and A in each case corresponds to a radical of Table D.

Table 1115

- 25 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OC(=O)CF₃, and A in each case corresponds to a radical of Table D.

Table 1116

- 30 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes NHCH₂CF₃, and A in each case corresponds to a radical of Table D.

Table 1117

- 35 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OCH₂-cyclopropyl, and A in each case corresponds to a radical of Table D.

Table 1118

- Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OCH₂C(Cl)=CH₂, and A in each case corresponds to a radical of Table D.

40 Table 1119

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OCH₂CH=CF₂, and A in each case corresponds to a radical of Table D.

Table 1120

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes NHS(=O)₂CF₃, and A in each case corresponds to a radical of Table D.

5

Table 1121

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes NHC(=O)CF₃, and A in each case corresponds to a radical of Table D.

10 Table 1122

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OCH₂CN, and A in each case corresponds to a radical of Table D.

Table 1123

15 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes OCH₂NO₂, and A in each case corresponds to a radical of Table D.

Table 1124

20 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes cyclopropyloxy, and A in each case corresponds to a radical of Table D.

Table 1125

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₂OCHF₂, and A in each case corresponds to a radical of Table D.

25

Table 1126

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH₂S(=O)₂CHF₂, and A in each case corresponds to a radical of Table D.

30 Table 1127

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH=NOCH₃, and A in each case corresponds to a radical of Table D.

Table 1128

35 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH=NOCH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 1129

40 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH=NOCH(CH₃)₂ and A in each case corresponds to a radical of Table D.

Table 1130

171

Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes CH=NOC(CH₃)₃, and A in each case corresponds to a radical of Table D.

Table 1131

- 5 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes C(CH₃)=NOCH₃, and A in each case corresponds to a radical of Table D.

Table 1132

- 10 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes C(CH₃)=NOCH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 1133

- 15 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes C(CH₃)=NOCH(CH₃)₂, and A in each case corresponds to a radical of Table D.

Table 1134

- 20 Compounds of the formula IA wherein Q¹ denotes cyano, Q³ denotes C(CH₃)=NOC(CH₃)₃, and A in each case corresponds to a radical of Table D.
- Table 1135
- Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CF₃, and A in each case corresponds to a radical of Table D.

Table 1136

- 25 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes bromine, and A in each case corresponds to a radical of Table D.

Table 1137

- 30 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes chlorine, and A in each case corresponds to a radical of Table D.

Table 1138

- 35 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₃, and A in each case corresponds to a radical of Table D.

Table 1139

- Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OCH₃, and A in each case corresponds to a radical of Table D.

Table 1140

- 40 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OCHCH₂, and A in each case corresponds to a radical of Table D.

Table 1141

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes ethoxy, and A in each case corresponds to a radical of Table D.

5

Table 1142

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OCH₂CHFOCH₃, and A in each case corresponds to a radical of Table D.

10 Table 1143

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OCH₂CH=CH₂, and A in each case corresponds to a radical of Table D.

Table 1144

15 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OCH₂CCH, and A in each case corresponds to a radical of Table D.

Table 1145

20 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₂OCH₃, and A in each case corresponds to a radical of Table D.

Table 1146

25 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₂OCH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 1147

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₂SCH₃, and A in each case corresponds to a radical of Table D.

30 Table 1148

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₂SCH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 1149

35 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₂S(=O)CH₃, and A in each case corresponds to a radical of Table D.

Table 1150

40 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₂S(=O)CH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 1151

173

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₂S(=O)₂CH₃, and A in each case corresponds to a radical of Table D.

Table 1152

- 5 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₂S(=O)₂CH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 1153

- 10 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes -OS(=O)₂CH₃, and A in each case corresponds to a radical of Table D.

Table 1154

- 15 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes -OS(=O)₂CH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 1155

- 20 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes -OS(=O)₂CH₂CF₃, and A in each case corresponds to a radical of Table D.

Table 1156

- 25 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes -OS(=O)₂CClF₂, and A in each case corresponds to a radical of Table D.

Table 1157

- 30 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OC(=O)CF₃, and A in each case corresponds to a radical of Table D.

Table 1158

- 35 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes NHCH₂CF₃, and A in each case corresponds to a radical of Table D.

Table 1159

- 40 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OCH₂-cyclopropyl, and A in each case corresponds to a radical of Table D.

Table 1160

- 45 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OCH₂C(Cl)=CH₂, and A in each case corresponds to a radical of Table D.

Table 1161

- 50 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OCH₂CH=CF₂, and A in each case corresponds to a radical of Table D.

Table 1162

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes NHS(=O)₂CF₃, and A in each case corresponds to a radical of Table D.

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Table 1163

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes NHC(=O)CF₃, and A in each case corresponds to a radical of Table D.

10 Table 1164

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OCH₂CN, and A in each case corresponds to a radical of Table D.

Table 1165

15 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes OCH₂NO₂, and A in each case corresponds to a radical of Table D.

Table 1166

20 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes cyclopropyloxy, and A in each case corresponds to a radical of Table D.

Table 1167

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₂OCHF₂, and A in each case corresponds to a radical of Table D.

25

Table 1168

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH₂S(=O)₂CHF₂, and A in each case corresponds to a radical of Table D.

30 Table 1169

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH=NOCH₃, and A in each case corresponds to a radical of Table D.

Table 1170

35 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH=NOCH₂CH₃, and A in each case corresponds to a radical of Table D.

Table 1171

40 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH=NOCH(CH₃)₂ and A in each case corresponds to a radical of Table D.

Table 1172

175

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes CH=NOC(CH₃)₃, and A in each case corresponds to a radical of Table D.

Table 1173

- 5 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes C(CH₃)=NOCH₃, and A in each case corresponds to a radical of Table D.

Table 1174

- 10 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes C(CH₃)=NOCH₂CH₃, and A in each case corresponds to a radical of Table D.

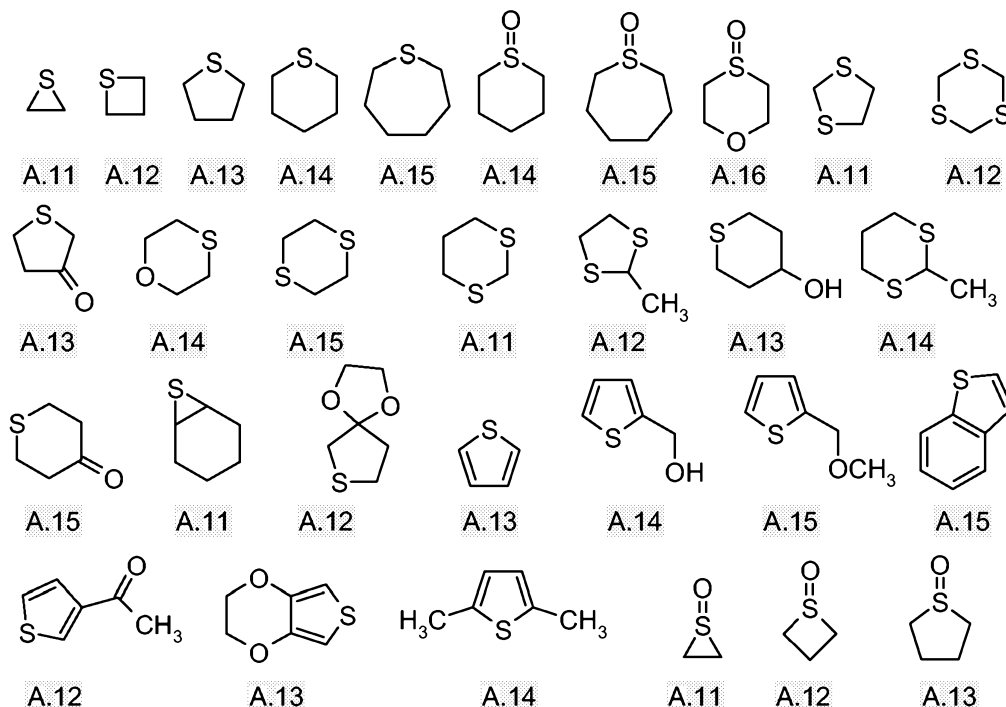
Table 1175

- 15 Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes C(CH₃)=NOCH(CH₃)₂, and A in each case corresponds to a radical of Table D.

Table 1176

Compounds of the formula IA wherein Q¹ denotes methyl, Q³ denotes C(CH₃)=NOC(CH₃)₃, and A in each case corresponds to a radical of Table D.

- 20 Table D: selected radicals A



The compounds of the formula I are especially suitable for efficiently combating the following pests:

- insects from the order of the lepidopterans (*Lepidoptera*), for example *Agrotis ypsilon*,
 5 *Agrotis segetum*, *Alabama argillacea*, *Anticarsia gemmatilis*, *Argyresthia conjugella*,
Autographa gamma, *Bupalus piniarius*, *Cacoecia murinana*, *Capua reticulana*, *Cheimatobia*
brumata, *Choristoneura fumiferana*, *Choristoneura occidentalis*, *Cirphis unipuncta*, *Cydia pomonella*,
Dendrolimus pini, *Diaphania nitidalis*, *Diatraea grandiosella*, *Earias insulana*, *Elasmopalpus lignosellus*, *Eupoecilia ambiguella*, *Evetria bou-*
 10 *liana*, *Feltia subterranea*, *Galleria mellonella*, *Grapholitha funebrana*, *Grapholitha molesta*,
Heliothis armigera, *Heliothis virescens*, *Heliothis zea*, *Hellula undalis*, *Hibernia defoliaria*,
Hyphantria cunea, *Hyponomeuta malinellus*, *Keiferia lycopersicella*, *Lambdina fiscellaria*,
Laphygma exigua, *Leucoptera coffeella*, *Leucoptera scitella*, *Lithocolletis blancardella*,
Lobesia botrana, *Loxostege sticticalis*, *Lymantria dispar*, *Lymantria monacha*,
 15 *Lyonetia clerkella*, *Malacosoma neustria*, *Mamestra brassicae*, *Orgyia pseudotsugata*,
Ostrinia nubilalis, *Panolis flammea*, *Pectinophora gossypiella*, *Peridroma saucia*,
Phalera bucephala, *Phthorimaea operculella*, *Phyllocnistis citrella*, *Pieris brassicae*,
Plathypena scabra, *Plutella xylostella*, *Pseudoplusia includens*, *Rhyacionia frutranana*,
Scrobipalpula absoluta, *Sitotroga cerealella*, *Sparganothis pilleriana*, *Spodoptera frugiperda*,
 20 *Spodoptera littoralis*, *Spodoptera litura*, *Thaumatopoea pityocampa*, *Tortrix viridana*,
Trichoplusia ni and *Zeiraphera canadensis*,
- beetles (*Coleoptera*), for example *Agrilus sinuatus*, *Agriotes lineatus*, *Agriotes obscurus*,
Amphimallus solstitialis, *Anisandrus dispar*, *Anthonomus grandis*, *Anthonomus pomorum*,
 25 *Aphthona euphoridae*, *Athous haemorrhoidalis*, *Atomaria linearis*, *Blastophagus piniperda*,
Blitophaga undata, *Bruchus rufimanus*, *Bruchus pisorum*, *Bruchus lentis*, *Byctiscus betulae*,
Cassida nebulosa, *Cerotoma trifurcata*, *Cetonia aurata*, *Ceuthorrhynchus assimilis*,
Ceuthorrhynchus napi, *Chaetocnema tibialis*, *Conoderus vespertinus*, *Crioceris asparagi*,
Ctenicera ssp., *Diabrotica longicornis*, *Diabrotica semipunctata*, *Diabrotica 12-punctata*,
 30 *Diabrotica speciosa*, *Diabrotica virgifera*, *Epilachna varivestis*, *Epitrix hirtipennis*,
Eutinobothrus brasiliensis, *Hylobius abietis*, *Hypera brunneipennis*, *Hypera postica*,
Ips typographus, *Lema bilineata*, *Lema melanopus*, *Leptinotarsa decemlineata*,
Limonius californicus, *Lissorhoptrus oryzophilus*, *Melanotus communis*, *Meligethes aeneus*,
Melolontha hippocastani, *Melolontha melolontha*,
 35 *Oulema oryzae*, *Ortiorrhynchus sulcatus*, *Otiorrhynchus ovatus*, *Phaedon cochleariae*,
Phyllobius pyri, *Phyllotreta chrysocephala*, *Phyllophaga sp.*, *Phyllopertha horticola*,
Phyllotreta nemorum, *Phyllotreta striolata*, *Popillia japonica*, *Sitona lineatus* and *Sitophilus granaria*,
- 40 flies, mosquitoes (*Diptera*), e.g. *Aedes aegypti*, *Aedes albopictus*, *Aedes vexans*, *Anastrepha ludens*,
Anopheles maculipennis, *Anopheles crucians*, *Anopheles albimanus*, *Anopheles gambiae*,
Anopheles freeborni, *Anopheles leucosphyrus*, *Anopheles mini-*

- mus*, *Anopheles quadrimaculatus*, *Calliphora vicina*, *Ceratitis capitata*, *Chrysomya bezziana*, *Chrysomya hominivorax*, *Chrysomya macellaria*, *Chrysops discalis*, *Chrysops silacea*, *Chrysops atlanticus*, *Cochliomyia hominivorax*, *Contarinia sorghicola*, *Cordylobia anthropophaga*, *Culicoides furens*, *Culex pipiens*, *Culex nigripalpus*, *Culex quinquefasciatus*, *Culex tarsalis*, *Culiseta inornata*, *Culiseta melanura*, *Dacus cucurbitae*, *Dacus oleae*, *Dasineura brassicae*, *Delia antique*, *Delia coarctata*, *Delia platura*, *Delia radicum*, *Dermatobia hominis*, *Fannia canicularis*, *Geomyza Tripunctata*, *Gasterophilus intestinalis*, *Glossina morsitans*, *Glossina palpalis*, *Glossina fuscipes*, *Glossina tachinoides*, *Haematobia irritans*, *Haplodiplosis equestris*, *Hippelates spp.*, *Hylemyia platura*, *Hypoderma lineata*, *Leptoconops torrens*, *Liriomyza sativae*, *Liriomyza trifolii*, *Lucilia caprina*, *Lucilia cuprina*, *Lucilia sericata*, *Lycoria pectoralis*, *Mansonia titillanus*, *Mayetiola destructor*, *Musca domestica*, *Muscina stabulans*, *Oestrus ovis*, *Opomyza florum*, *Oscinella frit*, *Pegomya hysocyami*, *Phorbia antiqua*, *Phorbia brassicae*, *Phorbia coarctata*, *Phlebotomus argentipes*, *Psorophora columbiae*, *Psila rosae*, *Psorophora discolor*, *Prosimulium mixtum*, *Rhagoletis cerasi*, *Rhagoletis pomonella*, *Sarcophaga haemorrhoidalis*, *Sarcophaga sp.*, *Simulium vittatum*, *Stomoxys calcitrans*, *Tabanus bovinus*, *Tabanus atratus*, *Tabanus lineola*, and *Tabanus similis*, *Tipula ol-eracea*, and *Tipula paludosa*
- thrips (*Thysanoptera*), e.g. *Dichromothrips corbetti*, *Dichromothrips ssp* , *Frankliniella fusca*, *Frankliniella occidentalis*, *Frankliniella tritici*, *Scirtothrips citri*, *Thrips oryzae*, *Thrips palmi* and *Thrips tabaci*,
- termites (*Isoptera*), e.g. *Calotermes flavicollis*, *Leucotermes flavipes*, *Heterotermes aureus*, *Reticulitermes flavipes*, *Reticulitermes virginicus*, *Reticulitermes lucifugus*, *Termes natalensis*, and *Coptotermes formosanus*,
- cockroaches (*Blattaria - Blattodea*), e.g. *Blattella germanica*, *Blattella asahinae*, *Periplaneta americana*, *Periplaneta japonica*, *Periplaneta brunnea*, *Periplaneta fuliginosa*, *Periplaneta australasiae*, and *Blatta orientalis*,
- true bugs (*Hemiptera*), e.g. *Acrosternum hilare*, *Blissus leucopterus*, *Cyrtopeltis notatus*, *Dysdercus cingulatus*, *Dysdercus intermedius*, *Eurygaster integriceps*, *Euschistus impictiventris*, *Leptoglossus phyllopus*, *Lygus lineolaris*, *Lygus pratensis*, *Nezara viridula*, *Piesma quadrata*, *Solubea insularis* , *Thyanta perditor*, *Acyrtosiphon onobrychis*, *Adelges laricis*, *Aphidula nasturtii*, *Aphis fabae*, *Aphis forbesi*, *Aphis pomi*, *Aphis gossypii*, *Aphis grossulariae*, *Aphis schneideri*, *Aphis spiraecola*, *Aphis sambuci*, *Acyrtosiphon pisum*, *Aulacorthum solani*, *Bemisia argentifolii*, *Brachycaudus cardui*, *Brachycaudus helichrysi*, *Brachycaudus persicae*, *Brachycaudus prunicola*, *Brevicoryne brassicae*, *Capitophorus horni*, *Cerosipha gossypii*, *Chaetosiphon fragaefolii*, *Cryptomyzus ribis*, *Dreyfusia nordmannianae*, *Dreyfusia piceae*, *Dysaphis radicola*, *Dysaulacorthum pseudosolani*, *Dysaphis plantaginea*, *Dysaphis pyri*, *Empoasca fabae*, *Hyalopterus*

- pruni*, *Hyperomyzus lactucae*, *Macrosiphum avenae*, *Macrosiphum euphorbiae*, *Macrosiphon rosae*, *Megoura viciae*, *Melanaphis pyraeae*, *Metopolophium dirhodum*, *Myzus persicae*, *Myzus ascalonicus*, *Myzus cerasi*, *Myzus varians*, *Nasonovia ribis-nigri*, *Nilaparvata lugens*, *Pemphigus bursarius*, *Perkinsiella saccharicida*, *Phorodon humuli*,
5 *Psylla mali*, *Psylla piri*, *Rhopalomyzus ascalonicus*, *Rhopalosiphum maidis*, *Rhopalosiphum padi*, *Rhopalosiphum insertum*, *Sappaphis mala*, *Sappaphis mali*, *Schizaphis graminum*, *Schizoneura lanuginosa*, *Sitobion avenae*, *Trialeurodes vaporariorum*, *Toxoptera aurantii* and *Viteus vitifolii*, *Cimex lectularius*, *Cimex hemipterus*, *Reduvius senilis*, *Triatoma* spp., and *Arilus critatus*.
- 10 ants, bees, wasps, sawflies (Hymenoptera), e.g. *Athalia rosae*, *Atta cephalotes*, *Atta capiguara*, *Atta cephalotes*, *Atta laevigata*, *Atta robusta*, *Atta sexdens*, *Atta texana*, *Crematogaster* spp., *Hoplocampa minuta*, *Hoplocampa testudinea*, *Monomorium pharaonis*, *Solenopsis geminata*, *Solenopsis invicta*, *Solenopsis richteri*, *Solenopsis xyloni*,
15 *Pogonomyrmex barbatus*, *Pogonomyrmex californicus*, *Pheidole megacephala*, *Dasytilla occidentalis*, *Bombus* spp. *Vespula squamosa*, *Paravespula vulgaris*, *Paravespula pennsylvanica*, *Paravespula germanica*, *Dolichovespula maculata*, *Vespa crabro*, *Polistes rubiginosa*, *Camponotus floridanus*, and *Linepithema humile*,
- 20 crickets, grasshoppers, locusts (Orthoptera), e.g. *Acheta domestica*, *Gryllotalpa gryllotalpa*, *Locusta migratoria*, *Melanoplus bivittatus*, *Melanoplus femurrubrum*, *Melanoplus mexicanus*, *Melanoplus sanguinipes*, *Melanoplus spretus*, *Nomadacris septemfasciata*, *Schistocerca americana*, *Schistocerca gregaria*, *Dociostaurus maroccanus*, *Tachycines asynamorus*, *Oedaleus senegalensis*, *Zonozelus variegatus*, *Hieroglyphus daganensis*,
25 *Kraussaria angulifera*, *Calliptamus italicus*, *Chortoicetes terminifera*, and *Locustana pardalina*,
- Arachnoidea, such as arachnids (Acarina), e.g. of the families Argasidae, Ixodidae and Sarcoptidae, such as *Amblyomma americanum*, *Amblyomma variegatum*, *Amblyomma*
30 *maculatum*, *Argas persicus*, *Boophilus annulatus*, *Boophilus decoloratus*, *Boophilus microplus*, *Dermacentor silvarum*, *Dermacentor andersoni*, *Dermacentor variabilis*, *Hyalomma truncatum*, *Ixodes ricinus*, *Ixodes rubicundus*, *Ixodes scapularis*, *Ixodes holocyclus*, *Ixodes pacificus*, *Ornithodoros moubata*, *Ornithodoros hermsi*, *Ornithodoros turicata*, *Ornithonyssus bacoti*, *Otobius megnini*, *Dermanyssus gallinae*, *Psoroptes*
35 *ovis*, *Rhipicephalus sanguineus*, *Rhipicephalus appendiculatus*, *Rhipicephalus evertsi*, *Sarcoptes scabiei*, and Eriophyidae spp. such as *Aculus schlechtendali*, *Phyllocoptrata oleivora* and *Eriophyes sheldoni*, Tarsonemidae spp. such as *Phytonemus pallidus* and *Polyphagotarsonemus latus*; Tenuipalpidae spp. such as *Brevipalpus phoenicis*; Tetranychidae spp. such as *Tetranychus cinnabarinus*, *Tetranychus kanzawai*, *Tetranychus*
40 *pacificus*, *Tetranychus telarius* and *Tetranychus urticae*, Panonychus ulmi, Panonychus citri, and *Oligonychus pratensis*; Araneida, e.g. *Latrodectus mactans*, and *Loxosceles reclusa*,

fleas (Siphonaptera), e.g. *Ctenocephalides felis*, *Ctenocephalides canis*, *Xenopsylla cheopis*, *Pulex irritans*, *Tunga penetrans*, and *Nosopsyllus fasciatus*,

silverfish, firebrat (Thysanura), e.g. *Lepisma saccharina* and *Thermobia domestica*,

5

centipedes (Chilopoda), e.g. *Scutigera coleoptrata*,

millipedes (Diplopoda), e.g. *Narceus spp.*,

10 Earwigs (Dermaptera), e.g. *forficula auricularia*,

lice (Phthiraptera), e.g. *Pediculus humanus capitis*, *Pediculus humanus corporis*, *Pthirus pubis*, *Haematopinus eurytenuis*, *Haematopinus suis*, *Linognathus vituli*, *Bovicola bovis*, *Menopon gallinae*, *Menacanthus stramineus* and *Solenopotes capillatus*,

15

Plant parasitic nematodes such as root-knot nematodes, *Meloidogyne arenaria*, *Meloidogyne chitwoodi*, *Meloidogyne exigua*, *Meloidogyne hapla*, *Meloidogyne incognita*, *Meloidogyne javanica* and other *Meloidogyne species*; cyst nematodes, *Globodera rostochiensis*, *Globodera pallida*, *Globodera tabacum* and other *Globodera species*,

20

Heterodera avenae, *Heterodera glycines*, *Heterodera schachtii*, *Heterodera trifolii*, and other *Heterodera species*; seed gall nematodes, *Anguina funesta*, *Anguina tritici* and other *Anguina species*; stem and foliar nematodes, *Aphelenchoides besseyi*, *Aphelenchoides fragariae*, *Aphelenchoides ritzemabosi* and other *Aphelenchoides species*;

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sting nematodes, *Belonolaimus longicaudatus* and other *Belonolaimus species*; pine nematodes, *Bursaphelenchus xylophilus* and other *Bursaphelenchus species*; ring nematodes, *Criconema species*, *Criconemella species*, *Criconemoides species*, and *Mesocriconema species*; stem and bulb nematodes, *Ditylenchus destructor*, *Ditylenchus dipsaci*, *Ditylenchus myceliophagus* and other *Ditylenchus species*; awl nematodes,

30

Dolichodorus species; spiral nematodes, *Helicotylenchus dihystra*, *Helicotylenchus multicinctus* and other *Helicotylenchus species*, *Rotylenchus robustus* and other *Rotylenchus species*; sheath nematodes, *Hemicycliophora species* and *Hemicriconemoides species*; *Hirshmanniella species*; lance nematodes, *Hoplolaimus columbus*, *Hoplolaimus galeatus* and other *Hoplolaimus species*; false root-knot nematodes, *Nacobbus aberrans* and other *Nacobbus species*; needle nematodes, *Longidorus elongates* and

35

other *Longidorus species*; pin nematodes, *Paratylenchus species*; lesion nematodes, *Pratylenchus brachyurus*, *Pratylenchus coffeae*, *Pratylenchus curvatus*, *Pratylenchus goodeyi*, *Pratylenchus neglectus*, *Pratylenchus penetrans*, *Pratylenchus scribneri*, *Pratylenchus vulnus*, *Pratylenchus zeae* and other *Pratylenchus species*; *Radinaphelenchus cocophilus* and other *Radinaphelenchus species*; burrowing nematodes, *Radopholus similis* and other *Radopholus species*; reniform nematodes, *Rotylenchulus reniformis* and other *Rotylenchulus species*; *Scutellonema species*; stubby root nematodes,

40

Trichodorus primitivus and other *Trichodorus species*; *Paratrichodorus minor* and

- other *Paratrichodorus species*; stunt nematodes, *Tylenchorhynchus claytoni*, *Tylenchorhynchus dubius* and other *Tylenchorhynchus species* and *Merlinius species*; citrus nematodes, *Tylenchulus semipenetrans* and other *Tylenchulus species*; dagger nematodes, *Xiphinema americanum*, *Xiphinema index*, *Xiphinema diversicaudatum* and
5 other *Xiphinema species*; and other plant parasitic nematode species.

- The formulations are prepared in a known manner (see e.g. for review US 3,060,084, EP-A 707 445 (for liquid concentrates), Browning, "Agglomeration", Chemical Engineering, Dec. 4, 1967, 147-48, Perry's Chemical Engineer's Handbook, 4th Ed.,
10 McGraw-Hill, New York, 1963, pages 8-57 and et seq. WO 91/13546, US 4,172,714, US 4,144,050, US 3,920,442, US 5,180,587, US 5,232,701, US 5,208,030, GB 2,095,558, US 3,299,566, Klingman, Weed Control as a Science, John Wiley and Sons, Inc., New York, 1961, Hance et al., Weed Control Handbook, 8th Ed., Blackwell Scientific Publications, Oxford, 1989 and Mollet, H., Grubemann, A., Formulation technology, Wiley VCH Verlag GmbH, Weinheim (Germany), 2001, 2. D. A. Knowles,
15 Chemistry and Technology of Agrochemical Formulations, Kluwer Academic Publishers, Dordrecht, 1998 (ISBN 0-7514-0443-8), for example by extending the active compound with auxiliaries suitable for the formulation of agrochemicals, such as solvents and/or carriers, if desired emulsifiers, surfactants and dispersants, preservatives, anti-foaming agents, anti-freezing agents, for seed treatment formulation also optionally
20 colorants and binders.

- Examples of suitable solvents are water, aromatic solvents (for example Solvesso products, xylene), paraffins (for example mineral oil fractions), alcohols (for example
25 methanol, butanol, pentanol, benzyl alcohol), ketones (for example cyclohexanone, gamma-butyrolactone), pyrrolidones (NMP, NOP), acetates (glycol diacetate), glycols, fatty acid dimethylamides, fatty acids and fatty acid esters. In principle, solvent mixtures may also be used.

- 30 Examples of suitable carriers are ground natural minerals (for example kaolins, clays, talc, chalk) and ground synthetic minerals (for example highly disperse silica, silicates).

- Suitable emulsifiers are nonionic and anionic emulsifiers (for example polyoxyethylene fatty alcohol ethers, alkylsulfonates and arylsulfonates).
35

Examples of dispersants are lignin-sulfite waste liquors and methylcellulose.

- Suitable surfactants used are alkali metal, alkaline earth metal and ammonium salts of lignosulfonic acid, naphthalenesulfonic acid, phenolsulfonic acid, dibutyl-naphthalene-sulfonic acid, alkylarylsulfonates, alkyl sulfates, alkylsulfonates, fatty alcohol sulfates,
40 fatty acids and sulfated fatty alcohol glycol ethers, furthermore condensates of sulfonated naphthalene and naphthalene derivatives with formaldehyde, condensates of

naphthalene or of naphthalenesulfonic acid with phenol and formaldehyde, polyoxyethylene octylphenol ether, ethoxylated isooctylphenol, octylphenol, nonylphenol, alkylphenol polyglycol ethers, tributylphenyl polyglycol ether, tristearylphenyl polyglycol ether, alkylaryl polyether alcohols, alcohol and fatty alcohol ethylene oxide condensates, ethoxylated castor oil, polyoxyethylene alkyl ethers, ethoxylated polyoxypropylene, lauryl alcohol polyglycol ether acetal, sorbitol esters, liginosulfite waste liquors and methylcellulose.

Substances which are suitable for the preparation of directly sprayable solutions, emulsions, pastes or oil dispersions are mineral oil fractions of medium to high boiling point, such as kerosene or diesel oil, furthermore coal tar oils and oils of vegetable or animal origin, aliphatic, cyclic and aromatic hydrocarbons, for example toluene, xylene, paraffin, tetrahydronaphthalene, alkylated naphthalenes or their derivatives, methanol, ethanol, propanol, butanol, cyclohexanol, cyclohexanone, isophorone, highly polar solvents, for example dimethyl sulfoxide, N-methylpyrrolidone or water.

Also anti-freezing agents such as glycerin, ethylene glycol, propylene glycol and bactericides such as can be added to the formulation.

Suitable antifoaming agents are for example antifoaming agents based on silicon or magnesium stearate.

Powders, materials for spreading and dustable products can be prepared by mixing or concomitantly grinding the active substances with a solid carrier.

Granules, for example coated granules, impregnated granules and homogeneous granules, can be prepared by binding the active compounds to solid carriers. Examples of solid carriers are mineral earths such as silica gels, silicates, talc, kaolin, attaclay, limestone, lime, chalk, bole, loess, clay, dolomite, diatomaceous earth, calcium sulfate, magnesium sulfate, magnesium oxide, ground synthetic materials, fertilizers, such as, for example, ammonium sulfate, ammonium phosphate, ammonium nitrate, ureas, and products of vegetable origin, such as cereal meal, tree bark meal, wood meal and nut-shell meal, cellulose powders and other solid carriers.

In general, the formulations comprise from 0.01 to 95% by weight, preferably from 0.1 to 90% by weight, of the active compound(s). In this case, the active compound(s) are employed in a purity of from 90% to 100% by weight, preferably 95% to 100% by weight (according to NMR spectrum).

The compounds of formula I can be used as such, in the form of their formulations or the use forms prepared therefrom, for example in the form of directly sprayable solutions, powders, suspensions or dispersions, emulsions, oil dispersions, pastes, dusta-

ble products, materials for spreading, or granules, by means of spraying, atomizing, dusting, spreading or pouring. The use forms depend entirely on the intended purposes; they are intended to ensure in each case the finest possible distribution of the active compound(s) according to the invention.

5

Aqueous use forms can be prepared from emulsion concentrates, pastes or wettable powders (sprayable powders, oil dispersions) by adding water. To prepare emulsions, pastes or oil dispersions, the substances, as such or dissolved in an oil or solvent, can be homogenized in water by means of a wetter, tackifier, dispersant or emulsifier.

10

However, it is also possible to prepare concentrates composed of active substance, wetter, tackifier, dispersant or emulsifier and, if appropriate, solvent or oil, and such concentrates are suitable for dilution with water.

15

The active compound concentrations in the ready-to-use preparations can be varied within relatively wide ranges. In general, they are from 0.0001 to 10%, preferably from 0.01 to 1% per weight.

20

The active compound(s) may also be used successfully in the ultra-low-volume process (ULV), it being possible to apply formulations comprising over 95% by weight of active compound, or even to apply the active compound without additives.

25

The following are examples of formulations: 1. Products for dilution with water for foliar applications. For seed treatment purposes, such products may be applied to the seed diluted or undiluted.

30

A) Water-soluble concentrates (SL, LS)

10 parts by weight of the active compound(s) are dissolved in 90 parts by weight of water or a water-soluble solvent. As an alternative, wetters or other auxiliaries are added. The active compound(s) dissolves upon dilution with water, whereby a formulation with 10 % (w/w) of active compound(s) is obtained.

35

B) Dispersible concentrates (DC)

20 parts by weight of the active compound(s) are dissolved in 75 parts by weight of cyclohexanone with addition of 10 parts by weight of a dispersant, for example polyvinylpyrrolidone. Dilution with water gives a dispersion, whereby a formulation with 20% (w/w) of active compound(s) is obtained.

40

C) Emulsifiable concentrates (EC)

15 parts by weight of the active compound(s) are dissolved in 75 parts by weight of xylene with addition of calcium dodecylbenzenesulfonate and castor oil ethoxylate (in

each case 5 parts by weight). Dilution with water gives an emulsion, whereby a formulation with 15% (w/w) of active compound(s) is obtained.

5 D) Emulsions (EW, EO, ES)

40 parts by weight of the active compound(s) are dissolved in 35 parts by weight of xylene with addition of calcium dodecylbenzenesulfonate and castor oil ethoxylate (in each case 5 parts by weight). This mixture is introduced into 30 parts by weight of water by means of an emulsifier machine (e.g. Ultraturrax) and made into a homogeneous emulsion. Dilution with water gives an emulsion, whereby a formulation with 25% (w/w) of active compound(s) is obtained.

E) Suspensions (SC, OD, FS)

In an agitated ball mill, 20 parts by weight of the active compound(s) are comminuted with addition of 10 parts by weight of dispersants, wetters and 70 parts by weight of water or of an organic solvent to give a fine active compound(s) suspension. Dilution with water gives a stable suspension of the active compound(s), whereby a formulation with 20% (w/w) of active compound(s) is obtained.

20 F) Water-dispersible granules and water-soluble granules (WG, SG)

50 parts by weight of the active compound(s) are ground finely with addition of 50 parts by weight of dispersants and wetters and made as water-dispersible or water-soluble granules by means of technical appliances (for example extrusion, spray tower, fluidized bed). Dilution with water gives a stable dispersion or solution of the active compound(s), whereby a formulation with 50% (w/w) of active compound(s) is obtained.

G) Water-dispersible powders and water-soluble powders (WP, SP, SS, WS)

75 parts by weight of the active compound(s) are ground in a rotor-stator mill with addition of 25 parts by weight of dispersants, wetters and silica gel. Dilution with water gives a stable dispersion or solution of the active compound(s), whereby a formulation with 75% (w/w) of active compound(s) is obtained.

2. Products to be applied undiluted for foliar applications. For seed treatment purposes, such products may be applied to the seed diluted or undiluted.

35 H) Dustable powders (DP, DS)

5 parts by weight of the active compound(s) are ground finely and mixed intimately with 95 parts by weight of finely divided kaolin. This gives a dustable product having 5% (w/w) of active compound(s)

I) Granules (GR, FG, GG, MG)

0.5 part by weight of the active compound(s) is ground finely and associated with 95.5 parts by weight of carriers, whereby a formulation with 0.5% (w/w) of active compound(s) is obtained. Current methods are extrusion, spray-drying or the fluidized bed.

5 This gives granules to be applied undiluted for foliar use.

J) ULV solutions (UL, LS)

10 10 parts by weight of the active compound(s) are dissolved in 90 parts by weight of an organic solvent, for example xylene. This gives a product having 10% (w/w) of active

compound(s), which is applied undiluted for foliar use.

Various types of oils, wetters, adjuvants, herbicides, fungicides, other pesticides, or bactericides may be added to the active ingredients, if appropriate just immediately prior to use (tank mix). These agents usually are admixed with the agents according to

15 the invention in a weight ratio of 1:10 to 10:1.

The compounds of formula I are effective through both contact and ingestion.

20 The compounds of formula I are also suitable for the protection of the seed, plant propagules and the seedlings' roots and shoots, preferably the seeds, against soil pests and also for the treatment plant seeds which tolerate the action of herbicides or fungicides or insecticides owing to breeding, including genetic engineering methods.

25 Conventional seed treatment formulations include for example flowable concentrates FS, solutions LS, powders for dry treatment DS, water dispersible powders WS or granules for slurry treatment, water soluble powders SS and emulsion ES. Application to the seeds is carried out before sowing, either directly on the seeds.

30 The seed treatment application of the compounds of formula I or formulations containing them is carried out by spraying or dusting the seeds before sowing of the plants and before emergence of the plants.

35 The invention also relates to the propagation product of plants, and especially the treated seed comprising, that is, coated with and/or containing, a compound of formula I or a composition comprising it. The term "coated with and/or containing" generally signifies that the active ingredient is for the most part on the surface of the propagation product at the time of application, although a greater or lesser part of the ingredient may penetrate into the propagation product, depending on the method of application. When the said propagation product is (re)planted, it may absorb the active ingredient.

40

The seed comprises the inventive compounds or compositions comprising them in an amount of from 0,1 g to 10 kg per 100 kg of seed.

Compositions of this invention may also contain other active ingredients, for example
5 other pesticides, insecticides, herbicides, fertilizers such as ammonium nitrate, urea, potash, and superphosphate, phytotoxicants and plant growth regulators, safeners and nematicides. These additional ingredients may be used sequentially or in combination with the above-described compositions, if appropriate also added only immediately prior to use (tank mix). For example, the plant(s) may be sprayed with a composition of
10 this invention either before or after being treated with other active ingredients.

The following list of pesticides together with which the compounds according to the invention can be used, is intended to illustrate the possible combinations, but not to impose any limitation:

15

A.1. Organo(thio)phosphates: acephate, azamethiphos, azinphos-methyl, chlorpyrifos, chlorpyrifos-methyl, chlorfenvinphos, diazinon, dichlorvos, dicotophos, dimethoate, disulfoton, ethion, fenitrothion, fenthion, isoxathion, malathion, methamidophos, methidathion, methyl-parathion, mevinphos, monocrotophos, oxydemeton-methyl, paraoxon,
20 parathion, phenthoate, phosalone, phosmet, phosphamidon, phorate, phoxim, pirimiphos-methyl, profenofos, prothiofos, sulprophos, tetrachlorvinphos, terbufos, triazophos, trichlorfon;

25

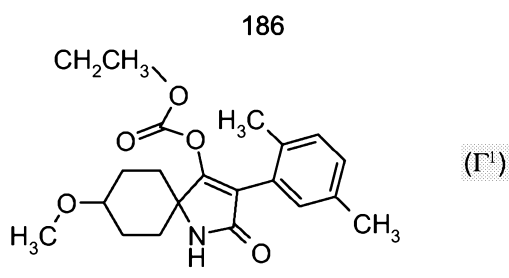
A.2. Carbamates: alanycarb, aldicarb, bendiocarb, benfuracarb, carbaryl, carbofuran, carbosulfan, fenoxycarb, furathiocarb, methiocarb, methomyl, oxamyl, pirimicarb, propoxur, thiodicarb, triazamate;

30

A.3. Pyrethroids: allethrin, bifenthrin, cyfluthrin, cyhalothrin, cyphenothrin, cypermethrin, alpha-cypermethrin, beta-cypermethrin, zeta-cypermethrin, deltamethrin, esfenvalerate, etofenprox, fenpropathrin, fenvalerate, imiprothrin, lambda-cyhalothrin, permethrin, prallethrin, pyrethrin I and II, resmethrin, silafluofen, tau-fluvalinate, tefluthrin, tetramethrin, tralomethrin, transfluthrin;

35

A.4. Growth regulators: a) chitin synthesis inhibitors: benzoylureas: chlorfluazuron, cyramazin, diflubenzuron, flucycloxuron, flufenoxuron, hexaflumuron, lufenuron, novaluron, teflubenzuron, triflumuron; buprofezin, diofenolan, hexythiazox, etoxazole, clofentazine; b) ecdysone antagonists: halofenozide, methoxyfenozide, tebufenozide, azadirachtin; c) juvenoids: pyriproxyfen, methoprene, fenoxycarb; d) lipid biosynthesis inhibitors: spiroticlofen, spiromesifen, a tetronic acid derivative of formula I¹,



A.5. Nicotinic receptor agonists/antagonists compounds: clothianidin, dinotefuran, imidacloprid, thiamethoxam, nitenpyram, acetamiprid, thiacloprid;

- 5 A.6. GABA antagonist compounds: acetoprole, endosulfan, ethiprole, fipronil, vaniliprole;

A.7. Macrocyclic lactone insecticides: abamectin, emamectin, milbemectin, lepimectin, spinosad;

10

A.8. METI I acaricides: fenazaquin, pyridaben, tebufenpyrad, tolfenpyrad;

A.9. METI II and III compounds: acequinocyl, fluacyprim, hydramethylnon;

- 15 A.10. Uncoupler compounds: chlorfenapyr;

A.11. Oxidative phosphorylation inhibitor compounds: cyhexatin, diafenthiuron, fenbutatin oxide, propargite;

- 20 A.12. Moulting disruptor compounds: cryomazine;

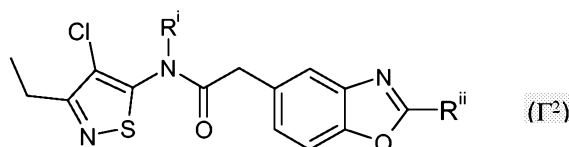
A.13. Mixed Function Oxidase inhibitor compounds: piperonyl butoxide;

A.14. Sodium channel blocker compounds: indoxacarb, metaflumizone;

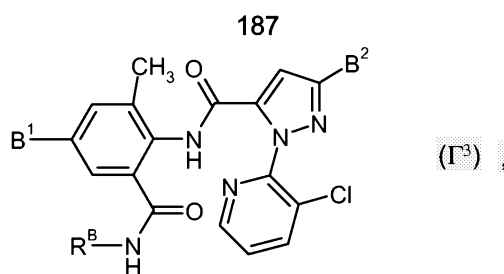
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A.15. Various: benclothiaz, bifenazate, cartap, flonicamid, pyridalyl, pymetrozine, sulfur, thiocyclam, N-Rⁱ-2,2-dihalo-1-Rⁱⁱcyclo-propanecarboxamide-2-(2,6-dichloro- α,α,α -trifluoro-p-tolyl)hydrazone or N-Rⁱ-2,2-di(Rⁱⁱⁱ)propionamide-2-(2,6-dichloro- α,α,α -trifluoro-p-tolyl)-hydrazone, wherein Rⁱ is methyl or ethyl, halo is chloro or bromo, Rⁱⁱ is hydrogen or methyl and Rⁱⁱⁱ is methyl or ethyl, and the aminoisothiazole compounds of formula I²,

30



wherein Rⁱ is -CH₂OCH₂CH₃ or H and Rⁱⁱ is CF₂CF₂CF₃ or CH₂CH(CH₃)₃,
anthranilamide compounds of formula I³



wherein B¹ is hydrogen or a chlorine atom, B² is a bromine atom or CF₃, and R^B is CH₃ or CH(CH₃)₂, and malononitrile compounds as described in JP 2002 284608, WO 02/89579, WO 02/90320, WO 02/90321, WO 04/06677, WO 04/20399, or JP 2004 99597.

The insects may be controlled by contacting the target parasite/pest, its food supply, habitat, breeding ground or its locus with a pesticidally effective amount of compounds of or compositions of formula I.

"Locus" means a habitat, breeding ground, plant, seed, soil, area, material or environment in which a pest or parasite is growing or may grow.

In general, "pesticidally effective amount" means the amount of active ingredient needed to achieve an observable effect on growth, including the effects of necrosis, death, retardation, prevention, and removal, destruction, or otherwise diminishing the occurrence and activity of the target organism. The pesticidally effective amount can vary for the various compounds/compositions used in the invention. A pesticidally effective amount of the compositions will also vary according to the prevailing conditions such as desired pesticidal effect and duration, weather, target species, locus, mode of application, and the like.

The compounds or compositions of the invention can also be applied preventively to places at which occurrence of the pests is expected.

The compounds of formula I may also be used to protect growing plants from attack or infestation by pests by contacting the plant with a pesticidally effective amount of compounds of formula I. As such, "contacting" includes both direct contact (applying the compounds/compositions directly on the pest and/or plant - typically to the foliage, stem or roots of the plant) and indirect contact (applying the compounds/compositions to the locus of the pest and/or plant).

In the case of soil treatment or of application to the pests dwelling place or nest, the quantity of active ingredient ranges from 0.0001 to 500 g per 100 m², preferably from 0.001 to 20 g per 100 m².

For use in treating crop plants, the rate of application of the active ingredients of this invention may be in the range of 0.1 g to 4000 g per hectare, desirably from 25 g to 600 g per hectare, more desirably from 50 g to 500 g per hectare.

- 5 Compounds of formula I and compositions comprising them can also be used for controlling and preventing infestations and infections in animals including warm-blooded animals (including humans) and fish. They are for example suitable for controlling and preventing infestations and infections in mammals such as cattle, sheep, swine, camels, deer, horses, pigs, poultry, rabbits, goats, dogs and cats, water buffalo, donkeys, fallow deer and reindeer, and also in fur-bearing animals such as mink, chinchilla and raccoon, birds such as hens, geese, turkeys and ducks and fish such as fresh- and salt-water fish such as trout, carp and eels.

- 15 Infestations in warm-blooded animals and fish include, but are not limited to, lice, biting lice, ticks, nasal bots, keds, biting flies, muscoid flies, flies, myiasitic fly larvae, chiggers, gnats, mosquitoes and fleas.

- The compounds of formula I and compositions comprising them are suitable for systemic and/or non-systemic control of ecto- and/or endoparasites. They are active against all or some stages of development.

- Administration can be carried out both prophylactically and therapeutically. Administration of the active compounds is carried out directly or in the form of suitable preparations, orally, topically/dermally or parenterally.

- 25 For oral administration to warm-blooded animals, the formula I compounds may be formulated as animal feeds, animal feed premixes, animal feed concentrates, pills, solutions, pastes, suspensions, drenches, gels, tablets, boluses and capsules. In addition, the formula I compounds may be administered to the animals in their drinking water. For oral administration, the dosage form chosen should provide the animal with 0.01 mg/kg to 100 mg/kg of animal body weight per day of the formula I compound, preferably with 0.5 mg/kg to 100 mg/kg of animal body weight per day.

- Alternatively, the formula I compounds may be administered to animals parenterally, for example, by intraruminal, intramuscular, intravenous or subcutaneous injection. The formula I compounds may be dispersed or dissolved in a physiologically acceptable carrier for subcutaneous injection. Alternatively, the formula I compounds may be formulated into an implant for subcutaneous administration. In addition the formula I compound may be transdermally administered to animals. For parenteral administration, the dosage form chosen should provide the animal with 0.01 mg/kg to 100 mg/kg of animal body weight per day of the formula I compound.

The formula I compounds may also be applied topically to the animals in the form of dips, dusts, powders, collars, medallions, sprays, shampoos, spot-on and pour-on formulations and in ointments or oil-in-water or water-in-oil emulsions. For topical application, dips and sprays usually contain 0.5 ppm to 5,000 ppm and preferably 1 ppm to 3,000 ppm of the formula I compound. In addition, the formula I compounds may be formulated as ear tags for animals, particularly quadrupeds such as cattle and sheep.

Suitable preparations are:

- 10 - Solutions such as oral solutions, concentrates for oral administration after dilution, solutions for use on the skin or in body cavities, pouring-on formulations, gels;
- Emulsions and suspensions for oral or dermal administration; semi-solid preparations;
- Formulations in which the active compound is processed in an ointment base or in
- 15 an oil-in-water or water-in-oil emulsion base;
- Solid preparations such as powders, premixes or concentrates, granules, pellets, tablets, boluses, capsules; aerosols and inhalants, and active compound-containing shaped articles.
- 20 Generally it is favorable to apply solid formulations which release compounds of formula I in total amounts of 10 mg/kg to 300 mg/kg, preferably 20 mg/kg to 200 mg/kg. The active compounds can also be used as a mixture with synergists or with other active compounds which act against pathogenic endo- and ectoparasites.
- 25 In general, the compounds of formula I are applied in parasitically effective amount—meaning the amount of active ingredient needed to achieve an observable effect on growth, including the effects of necrosis, death, retardation, prevention, and removal, destruction, or otherwise diminishing the occurrence and activity of the target organism. The parasitically effective amount can vary for the various compounds/compositions
- 30 used in the invention. A parasitically effective amount of the compositions will also vary according to the prevailing conditions such as desired parasiticide effect and duration, target species, mode of application, and the like.

Synthesis Examples

- 35 With due modification of the starting compounds, the protocols shown in the synthesis examples below were used for obtaining further compounds I. The resulting compounds, together with physical data, are listed in the Tables 1 to 3 which follow.
- 40 2-[5-Bromo-2-(3-chloro-pyridin-2-yl)-2H-pyrazol-3-yl]-8-methyl-benzo[d][1,3]oxazin-4-one is known from WO 04/011447.

Example 1

Methyl-phenyl-sulfamoyl-N-(5-bromo-2-(3-chloro-pyridin-2-yl)-2H-pyrazole-3-carboxylic acid (2-carbamoyl-6-methyl-phenyl))-amide, compound I.1-33.

5

0.089 g Methyl-phenyl-sulfamoyl-amine was dissolved in 5 ml methylene chloride.

0.017 g sodium hydride was added at 20-25°C and the solution was stirred for 1 hour.

0.20 g 2-[5-Bromo-2-(3-chloro-pyridin-2-yl)-2H-pyrazol-3-yl]-8-methyl-benzo[d]

[1,3]oxazin-4-one were added and the resulting mixture was refluxed for 24h. The sol-

10

vent was removed and the residue was purified by column chromatography (cyclo hexane/ ethyl acetate 1:2) to yield 0.18 g methyl-phenyl-sulfamoyl-N-(5-bromo-2-(3-chloro-pyridin-2-yl)-2H-pyrazole-3-carboxylic acid (2-carbamoyl-6-methyl-phenyl))-amide

Example 2

15

Step A: Preparation of 5-bromo-2-(3-chloro-pyridin-2-yl)-2H-pyrazole-3-carboxylic acid (2-carbamoyl-6-methyl-phenyl)-amide

1.00 g 2-[5-Bromo-2-(3-chloro-pyridin-2-yl)-2H-pyrazol-3-yl]-8-methyl-benzo[d]

20

[1,3]oxazin-4-one was taken up in 10 ml of a 25% ammonia solution in water and stirred for 72 h. The solids were filtered and washed with cold water to yield 0.80 g of the amide.

Step B: S,S-Dimethyl-N-(5-bromo-2-(3-chloro-pyridin-2-yl)-2H-pyrazole-3-carboxylic acid (2-carbamoyl-6-methyl-phenyl))-sulfimide, compound I.3-2.

25

0.071 ml DMSO were dissolved under a nitrogen atmosphere in 0.5 ml methylene chloride and cooled to -60 °C. 0.14 ml trifluoroacetic acid anhydride were slowly added at this temperature followed by the addition of 0.20g 5-bromo-2-(3-chloro-pyridin-2-yl)-2H-pyrazole-3-carboxylic acid (2-carbamoyl-6-methyl-phenyl)-amide. The resulting solution

30

was stirred at -35°C for 1h. After diluting with 5 ml methylene chloride, the reaction mixture was extracted with aqueous sodium hydroxide once and two times with water.

The organic solvent was dried and the solvent removed. The residue was diluted with diethyl ether and the solid residue was filtered off and dried to yield 0.08 g of the de-

35

sired sulfimide.

Example 3

S,S Dimethyl – S- Aminosulfonium mesitylenesulfonate was prepared according to Y. Tamura et al, Tetrahedron, 1975, 31, 3035-3040.

5

S,S-Dimethyl-N-(5-bromo-2-(3-chloro-pyridin-2-yl)-2H-pyrazole-3-carboxylic acid (2-carbamoyl-6-methyl-phenyl))-sulfimide, compound I.3-2.

0.2 g S,S Dimethyl – S- Aminosulfonium mesitylenesulfonate were dissolved in 20 ml methylene chloride. 0.26 g potassium t-butyrate, 0.54 g 2-[5-Bromo-2-(3-chloro-pyridin-2-yl)-2H-pyrazol-3-yl]-8-methyl-benzo[d][1,3]oxazin-4-one were added and the resulting mixture was stirred at 20-25°C for additional 3.5 h. The reaction mixture was extracted with aqueous sodium hydroxide once and two times with water. The organic solvent was dried and the solvent removed. Column chromatography yielded 0.3 g of the desired product.

15

Example 4

2-{2-[5-Bromo-2-(2-chloro-phenyl)-2H-pyrazol-3-yl]-2-oxo-ethyl}-5-chloro-3-methyl-N-(1-oxo-hexahydro-1 λ 6*-thiopyran-1-ylidene)-benzamide

20

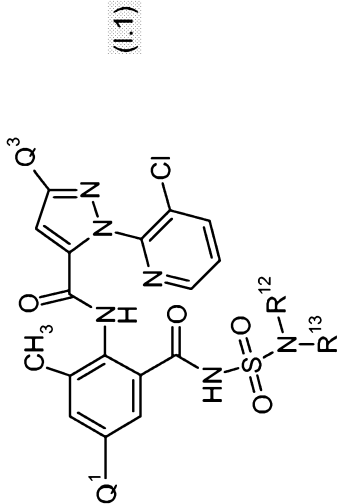
0.2 g 2-{2-[5-Bromo-2-(2-chloro-phenyl)-2H-pyrazol-3-yl]-2-oxo-ethyl}-5-chloro-3-methyl-N-(tetrahydro-1 λ 4*-thiopyran-1-ylidene)-benzamide (0.35 mmol) were dissolved in 10 ml acetic acid. 4 mg Sodium wolframate dihydrate were added. 45 mg of a 30 % solution of hydrogenperoxide was added dropwise and the resulting solution was stirred for 18 h. The reaction mixture was poured into a saturated aqueous sodium carbonate solution, methylene chloride was added and the organic phase was subsequently washed with water and saturated aqueous sodium carbonate. The organic solvent was dried and the solvent removed. Column chromatography yielded 0.07 g of the desired product, compound I.4-22.

25

30

The products were characterized by coupled High Performance Liquid Chromatography / mass spectrometry (HPLC/MS), by NMR or by their melting points.

Table I



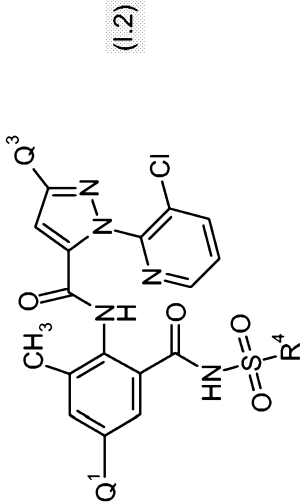
No.	Q¹	Q³	R¹²	R¹³	Physical Data: Meltingpoint [°C] ¹H-NMR, δ [ppm]
I.1-1	Cl	Br	CH₂CH₃	i-C₃H₇	> 210
I.1-2	Cl	Br	CH₂CH₃	c-C₆H₁₁	191
I.1-3	Cl	Br	i-C₃H₇	i-C₃H₇	150 - 151
I.1-4	Cl	Br	i-C₃H₇	CH₂CHCH₂	>210
I.1-5	Cl	Br	CH₃	CH₂CCH	162 - 163
I.1-6	Cl	Br	CH₃	CH₂CHCH₂	123
I.1-7	Cl	Br	CH₃	CH₂CH₃	102.20
I.1-8	Cl	Br	CH₃	i-C₃H₇	200
I.1-9	Cl	Br	CH₃	CH₃	203
I.1-10	Cl	Br	CH₃	c-C₆H₁₁	176 - 177
I.1-11	Cl	Br	CH₃	CH₂C₆H₅	154 - 155
I.1-12	Cl	Br	CH₃	C₆H₅	155 - 156
I.1-13	Cl	Br	CH₃	i-C₄H₉	148 - 149
I.1-14	Cl	Br	CH₃	CH₂CH₂C₆H₅	167 - 168

No.	Q ¹	Q ³	R ¹²	R ¹³	Physical Data: Meltingpoint [°C] ¹ H-NMR, δ [ppm]
I.1-15	Cl	Br	n-C ₃ H ₇	i-C ₃ H ₇	> 210
I.1-16	Cl	Br	n-C ₃ H ₇	CH ₂ CH ₂ OMe	150 - 151
I.1-17	H	Br	CH ₂ CH ₃	<i>o</i> -C ₆ H ₁₁	191
I.1-18	H	Br	CH ₂ CH ₃	CH ₂ CH ₃	191
I.1-19	H	Br	CH ₂ CH ₃	i-C ₃ H ₇	209
I.1-20	H	Br	i-C ₃ H ₇	CH ₂ CHCH ₂	185
I.1-21	H	Br	i-C ₃ H ₇	n-C ₃ H ₇	204
I.1-22	H	Br	i-C ₃ H ₇	i-C ₃ H ₇	151
I.1-23	H	Br	CH ₃	CH ₂ CHCH ₂	153
I.1-24	H	Br	CH ₃	CH ₂ C ₆ H ₅	2.3 (s), 2.6 (s), 4.2 (s), 7.2-7.7 (m), 8.1 (d), 8.4 (d), 10.3 (s), 11.9 (s) [d ₆ -DMSO]
I.1-25	H	Br	CH ₃	CH ₂ CCH	172
I.1-26	H	Br	CH ₃	CH ₂ CH ₂ C ₆ H ₅	178
I.1-27	H	Br	CH ₃	CH ₂ CH ₃	202
I.1-28	H	Br	CH ₃	i-C ₄ H ₉	0.8 (d), 1.8 (m), 2.2 (s), 2.6 (s), 2.8 (s), 7.2-7.6 (m), 8.1 (d), 8.5 (d), 10.2 (s), 11.7 (s) [d ₆ -DMSO]
I.1-29	H	Br	CH ₃	i-C ₃ H ₇	1.0 (d), 2.2 (s), 2.8 (s), 4.3 (m), 7.2-7.4 (m), 7.8 (d), 8.4 (d), 8.6 (s), 9.6 (s) [CDCl ₃]
I.1-30	H	Br	CH ₃	CH ₃	205
I.1-31	H	Br	CH ₃	n-C ₃ H ₇	203
I.1-32	H	Br	CH ₃	C ₆ H ₅	1.0 (d), 2.1 (s), 7.2-7.7 (m), 8.1 (d), 8.4 (d), 10.3 (s), 11.9 (s) [d ₆ -DMSO]
I.1-33	H	Br	CH ₃	C ₆ H ₅	199

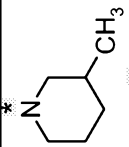
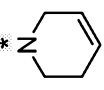
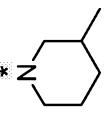
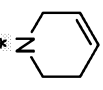
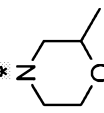
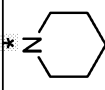
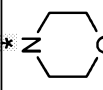
No.	Q ¹	Q ³	R ¹²	R ¹³	Physical Data: Meltingpoint [°C] ¹ H-NMR, δ [ppm]
I.1-34	Cl	CF ₃	CH ₂ CH ₂ OMe	CH ₂ CH ₂ CH ₃	150
I.1-35	Cl	CF ₃	CH ₂ CHCH ₂	i-C ₃ H ₇	190
I.1-36	Cl	CF ₃	CH ₂ CH ₃	c-C ₆ H ₁₁	185
I.1-37	Cl	CF ₃	CH ₂ CH ₃	CH ₂ CH ₃	>240
I.1-38	Cl	CF ₃	CH ₂ CH ₃	i-C ₃ H ₇	155
I.1-39	Cl	CF ₃	i-C ₃ H ₇	i-C ₃ H ₇	180
I.1-40	Cl	CF ₃	i-C ₃ H ₇	n-C ₃ H ₇	175
I.1-41	Cl	CF ₃	CH ₃	CH ₂ CCH	155
I.1-42	Cl	CF ₃	CH ₃	CH ₂ CH ₂ Ph	160
I.1-43	Cl	CF ₃	CH ₃	CH ₂ CHCH ₂	90
I.1-44	Cl	CF ₃	CH ₃	c-C ₆ H ₁₁	102
I.1-45	Cl	CF ₃	CH ₃	CH ₂ CH ₃	110
I.1-46	Cl	CF ₃	CH ₃	i-C ₄ H ₉	160
I.1-47	Cl	CF ₃	CH ₃	CH ₃	198
I.1-48	Cl	CF ₃	CH ₃	CH ₂ C ₆ H ₅	120
I.1-49	Cl	CF ₃	CH ₃	C ₆ H ₅	130
I.1-50	H	CF ₃	CH ₂ CH ₂ OMe	n-C ₃ H ₇	180
I.1-51	H	CF ₃	CH ₂ CHCH ₂	i-C ₃ H ₇	177
I.1-52	H	CF ₃	CH ₂ CH ₃	c-C ₆ H ₁₁	200
I.1-53	H	CF ₃	CH ₂ CH ₃	CH ₂ CH ₃	180
I.1-54	H	CF ₃	i-C ₃ H ₇	i-C ₃ H ₇	190
I.1-55	H	CF ₃	i-C ₃ H ₇	n-C ₃ H ₇	185
I.1-56	H	CF ₃	CH ₃	CH ₂ C ₆ H ₅	165

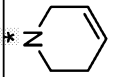
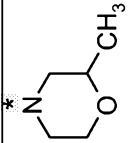
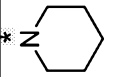
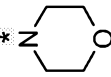
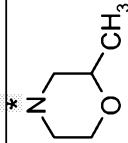
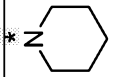
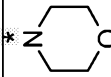
No.	Q ¹	Q ³	R ¹²	R ¹³	Physical Data: Meltingpoint [°C] ¹ H-NMR, δ [ppm]
I.1-57	H	CF ₃	CH ₃	CH ₂ CCH	165
I.1-58	H	CF ₃	CH ₃	CH ₂ CH ₂ C ₆ H ₅	165
I.1-59	H	CF ₃	CH ₃	CH ₂ CHCH ₂	160
I.1-60	H	CF ₃	CH ₃	c-C ₆ H ₁₁	205
I.1-61	H	CF ₃	CH ₃	CH ₂ CH ₃	195
I.1-62	H	CF ₃	CH ₃	i-C ₄ H ₉	175
I.1-63	H	CF ₃	CH ₃	i-C ₃ H ₇	1.1 (d), 2.2 (s), 2.8 (s), 4.3 (m), 7.2-7.5 (m), 7.9 (d), 8.5 (d), 8.6 (s), 9.7 (s) [CDCl ₃]
I.1-64	H	CF ₃	CH ₃	CH ₃	183
I.1-65	H	CF ₃	CH ₃	C ₆ H ₅	115
I.1-66	Cl	CF ₃	n-C ₃ H ₇		140
I.1-67	H	CF ₃	n-C ₃ H ₇		195
I.1-68	H	Br	n-C ₃ H ₇		199
I.1-69	Cl	Br	n-C ₃ H ₇		159-160

Table II



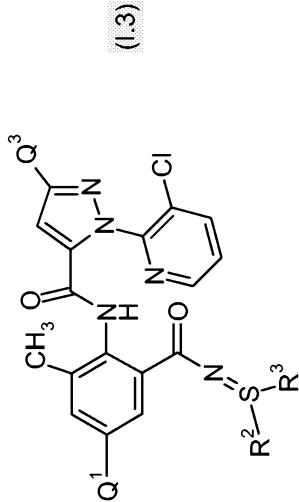
No.	Q ¹	Q ³	R ⁴	Physical Data ¹ H-NMR, δ [ppm]	Melting Point [°C]
I.2-1	Cl	CF ₃		115	
I.2-2	Cl	CF ₃		160	
I.2-3	Cl	CF ₃		145	
I.2-4	Cl	CF ₃		115	

No.	Q ¹	Q ³	R ⁴	Physical Data ¹ H-NMR, δ [ppm] Melting Point [°C]
I.2-5	Cl	Br		105 - 106
I.2-6	Cl	Br		138 - 139
I.2-7	H	CF ₃		175
I.2-8	H	CF ₃		182
I.2-9	H	CF ₃		150
I.2-10	Cl	Br		oil
I.2-11	Cl	Br		135

No.	Q ¹	Q ³	R ⁴	Physical Data ¹ H-NMR, δ [ppm]	Melting Point [°C]
I.2-12	H	Br		162	
I.2-13	H	Br		151	
I.2-14	H	Br		162	
I.2-15	H	Br		150	
I.2-16	Cl	CF ₃		198	
I.2-17	H	CF ₃		190	
I.2-18	H	CF ₃		165	

* denotes the binding site

Table III



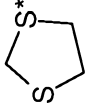
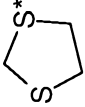
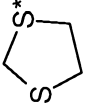
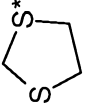
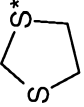
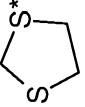
No.	Q ¹	Q ³	R ²	R ³	Melting Point [°C]
I.3-1	Cl	CF ₃	i-C ₃ H ₇	i-C ₃ H ₇	163
I.3-2	H	Br	CH ₃	CH ₃	165
I.3-3	Cl	Br	CH ₂ CH ₃	CH ₂ CH ₃	oil
I.3-4	Cl	Br	CH ₃	CH ₃	185
I.3-5	Cl	Br	i-C ₃ H ₇	i-C ₃ H ₇	165 decomp.
I.3-6	Cl	CF ₃	i-C ₃ H ₇	i-C ₃ H ₇	142
I.3-7	H	Br	CH ₃	CH ₃	200
I.3-8	Cl	CF ₃	CH ₃	CH ₃	182
I.3-9	H	Br	n-C ₃ H ₇	CH ₃	150
I.3-10	H	CF ₃	n-C ₃ H ₇	CH ₃	143
I.3-11	Cl	Br	n-C ₃ H ₇	CH ₃	179
I.3-12	Cl	Br	n-C ₅ H ₁₁	CH ₂ CH ₂ OH	160
I.3-13	H	Br	n-C ₅ H ₁₁	CH ₂ CH ₂ OH	70 decomp.
I.3-14	Cl	CF ₃	CH ₃	n-C ₃ H ₇	60 decomp.

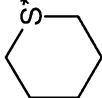
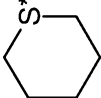
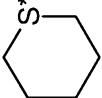
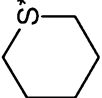
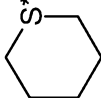
No.	Q ¹	Q ³	R ²	R ³	Melting Point [°C]
I.3-15	I	CF ₃	CH ₃	n-C ₃ H ₇	85
I.3-16	I	Br	CH ₃	n-C ₃ H ₇	180 decomp.
I.3-17	H	CF ₃	n-C ₅ H ₁₁	CH ₂ CH ₂ OH	106
I.3-18	I	Br	n-C ₅ H ₁₁	CH ₂ CH ₂ OH	150 decomp.
I.3-19	I	Br	i-C ₃ H ₇	i-C ₃ H ₇	75
I.3-20	I	CF ₃	i-C ₃ H ₇	i-C ₃ H ₇	75
I.3-21	H	Br	i-C ₃ H ₇	i-C ₃ H ₇	180
I.3-22	I	Br	CH ₃	CH ₃	115
I.3-23	I	CF ₃	CH ₃	CH ₃	165
I.3-24	H	CF ₃	CH ₃	CH ₃	206
I.3-25	Cl	Br	CH ₂ CH ₃	CH ₃	192
I.3-26	H	Br	CH ₂ CH ₃	CH ₃	161
I.3-27	I	Br	CH ₂ CH ₃	CH ₃	124
I.3-28	Cl	CF ₃	CH ₂ CH ₃	CH ₃	181
I.3-29	H	CF ₃	CH ₃	CH ₂ CH ₃	181
I.3-30	I	CF ₃	CH ₂ CH ₃	CH ₃	181
I.3-31	H	CF ₃	i-C ₃ H ₇	i-C ₃ H ₇	192
I.3-32	Cl	CF ₃	n-C ₅ H ₁₁	CH ₂ CH ₂ OH	133
I.3-33	I	CF ₃	n-C ₅ H ₁₁	CH ₂ CH ₂ OH	135
I.3-34	Cl	CF ₃	CH ₃	p-F-C ₆ H ₄	185
I.3-35	Cl	Br	CH ₃	p-F-C ₆ H ₄	195
I.3-36	H	Br	CH ₃	p-F-C ₆ H ₄	120
I.3-37	H	CF ₃	CH ₃	p-F-C ₆ H ₄	180

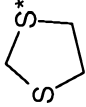
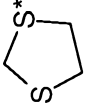
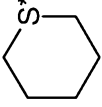
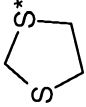
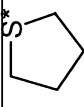
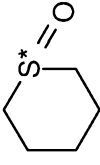
No.	Q ¹	Q ³	R ²	R ³	Melting Point [°C]
I.3-38	I	CF ₃	CH ₃	p-F-C ₆ H ₄	182
I.3-39	I	Br	CH ₃	p-F-C ₆ H ₄	201
I.3-40	Cl	Br	CH ₂ CH ₂ Cl	CH ₂ CH ₃	158
I.3-41	Cl	Br	CH ₂ CH ₃	CHCH ₂	75
I.3-42	H	Br	CH ₂ CH ₃	CHCH ₂	60
I.3-43	I	Br	CH ₂ CH ₃	CHCH ₂	80
I.3-44	I	Br	CH ₂ CH ₂ Cl	CH ₂ CH ₃	80
I.3-45	Cl	OCH ₂ CCH	i-C ₃ H ₇	i-C ₃ H ₇	oil
I.3-46	I	OCH ₂ CCH	i-C ₃ H ₇	i-C ₃ H ₇	oil
I.3-47	Cl	OCH ₂ CCH	CH ₃	p-F-C ₆ H ₄	oil
I.3-48	I	OCH ₂ CCH	CH ₃	p-F-C ₆ H ₄	oil
I.3-49	Cl	OCH ₂ CCH	CH ₂ CH ₂ OH	n-C ₅ H ₁₁	oil
I.3-50	I	OCH ₂ CCH	CH ₂ CH ₂ OH	n-C ₅ H ₁₁	oil
I.3-51	H	CF ₃	CH ₂ CH ₃	CH ₂ CH ₂ Cl	171
I.3-52	I	CF ₃	CH ₂ CH ₂ Cl	CH ₂ CH ₃	164
I.3-53	CN	CF ₃	n-C ₃ H ₇	CH ₃	70
I.3-54	CN	CF ₃	p-F-C ₆ H ₄	CH ₃	72
I.3-55	CN	CF ₃	CH ₃	CH ₃	225
I.3-56	CN	Br	n-C ₃ H ₇	CH ₃	70
I.3-57	CN	Br	p-F-C ₆ H ₄	CH ₃	180
I.3-58	CN	Br	n-C ₅ H ₁₁	CH ₂ CH ₂ OH	50
I.3-59	CN	Br	i-C ₃ H ₇	i-C ₃ H ₇	185
I.3-60	CN	Br	CH ₃	CH ₃	205

No.	Q ¹	Q ³	R ²	R ³	Melting Point [°C]
I.3-61	CN	Br	CH ₂ CH ₃	CH ₃	80
I.3-62	CN	Br	CH ₂ CH ₃	CHCH ₂	60
I.3-63	CN	Br	CH ₃	s-C ₄ H ₉	71
I.3-64	CN	CF ₃	CH ₂ CH ₃	CHCH ₂	60
I.3-65	CN	CF ₃	CH ₃	CH ₂ CH ₃	65
I.3-66	CN	CF ₃	CH ₂ CH ₂ OH	n-C ₅ H ₁₁	47
I.3-67	CN	CF ₃	s-C ₄ H ₉	CH ₃	66
I.3-68	CN	CF ₃	i-C ₃ H ₇	i-C ₃ H ₇	131

“decomp.” denotes the onset temperature of the decomposition.

No.	Q ¹	Q ³	$[O]_n-S^* \begin{matrix} R^2 \\ \\ R^3 \end{matrix}$	Physical Data: Meltingpoint [°C]
I.4-5	Cl	CF ₃		182
I.4-6	Cl	Br		165
I.4-7	I	Br		120
I.4-8	H	CF ₃		188
I.4-9	H	Br		169
I.4-10	I	CF ₃		148

No.	Q ¹	Q ³	$[\text{O}]_n - \text{S}^* \begin{smallmatrix} \text{R}^2 \\ \text{R}^3 \end{smallmatrix}$	Physical Data: Meltingpoint [°C]
I.4-11	I	CF ₃		215
I.4-12	Cl	Br		223
I.4-13	I	Br		213
I.4-14	Cl	OCH ₂ CCH		Oil
I.4-15	Cl	OCH ₂ CCH		Oil
I.4-16	CN	CF ₃		85

No.	Q ¹	Q ³	$[O]_n-S^* \begin{matrix} R^2 \\ R^3 \end{matrix}$	Physical Data: Meltingpoint [°C]
I.4-17	CN	Br		92
I.4-18	CN	Br		85
I.4-19	CN	Br		85
I.4-20	CN	CF ₃		88
I.4-21	CN	CF ₃		194
I.4-22	Cl	Br		Oil

No.	Q ¹	Q ³	$[O]_n = \overset{*}{S} \begin{matrix} \diagup R^2 \\ R^3 \end{matrix}$	Physical Data: Meltingpoint [°C]
I.4-23	Cl	CF ₃	[CH ₂ CH ₂ OH][[(CH ₂) ₄ CH ₃]S(=O)-	oil

208

Examples for the action against harmful pests

1. Activity against Boll weevil (*Anthonomus grandis*)

- 5 The active compounds were formulated in 1:3 DMSO : water. 10 to 15 eggs were placed into microtiterplates filled with 2% agar-agar in water and 300 ppm formaline. The eggs were sprayed with 20 µl of the test solution, the plates were sealed with pierced foils and kept at 24-26°C and 75-85% humidity with a day/night cycle for 3 to 5 days. Mortality was assessed on the basis of the remaining unhatched eggs or larvae
- 10 on the agar surface and/or quantity and depth of the digging channels caused by the hatched larvae. Tests were replicated 2 times.

- In this test, compounds I.1-3, I.1-11, I.1-15, I.1-32, I.1-35, I.1-48, I.1-69, I.2-2, I.3-1, I.3-3, I.3-4, I.3-5, I.3-6, I.3-7, I.3-8, I.3-9, I.3-10, I.3-11, I.3-12, I.3-13, I.3-14, I.3-19, I.3-20, I.3-21, I.3-22, I.3-23, I.3-24, I.3-25, I.3-26, I.3-27, I.3-28, I.3-29, I.3-30, I.3-31, I.3-32, I.3-33, I.3-34, I.3-35, I.3-36, I.3-37, I.3-38, I.3-39, I.3-40, I.3-41, I.3-42, I.3-43, I.3-44, I.3-45, I.3-46, I.3-47, I.3-48, I.3-49, I.3-51, I.3-52, I.3-53, I.3-54, I.3-55, I.3-56, I.3-57, I.3-58, I.4-1, I.4-2, I.4-3, I.4-4, I.4-5, I.4-6, I.4-7, I.4-8, I.4-9, I.4-10, I.4-11, I.4-12, I.4-13, I.4-14, I.4-15, I.4-16, I.4-17, I.4-22, and I.4-23 at 2500 ppm showed over 75 % mortality.
- 15
- 20

2. Activity against Mediterranean fruitfly (*Ceratitis capitata*)

- The active compounds were formulated in 1:3 DMSO : water. 50 to 80 eggs were placed into microtiterplates filled with 0.5% agar-agar and 14 % diet in water. The eggs were sprayed with 5 µl of the test solution, the plates were sealed with pierced foils and kept at 27-29°C and 75-85% humidity under fluorescent light for 6 days. Mortality was assessed on the basis of the agility of the hatched larvae. Tests were replicated 2 times.
- 25

- 30 In this test, compounds I.1-12, I.1-38, I.1-43, I.1-44, I.1-49, I.3-1, I.3-8, I.3-9, I.3-10, I.3-11, I.3-12, I.3-13, I.3-14, I.3-19, I.3-20, I.3-22, I.3-23, I.3-24, I.3-25, I.3-26, I.3-27, I.3-28, I.3-29, I.3-30, I.3-32, I.3-33, I.3-34, I.3-35, I.3-37, I.3-38, I.3-39, I.3-40, I.3-41, I.3-42, I.3-43, I.3-44, I.3-45, I.3-46, I.3-47, I.3-48, I.3-49, I.3-51, I.3-52, I.3-53, I.3-54, I.3-55, I.3-56, I.3-57, I.3-58, I.4-1, I.4-2, I.4-3, I.4-4, I.4-5, I.4-6, I.4-7, I.4-8, I.4-9, I.4-10, I.4-11, I.4-12, I.4-13, I.4-15, I.4-16, I.4-17, I.4-22 and I.4-23 at 2500 ppm showed over 75 % mortality.
- 35

3. Activity against Tobacco budworm (*Heliothis virescens*)

- 40 The active compounds were formulated in 1:3 DMSO : water. 15 to 25 eggs were placed into microtiterplates filled with diet. The eggs were sprayed with 10 µl of the test

solution, the plates were sealed with pierced foils and kept at 27-29°C and 75-85% humidity under fluorescent light for 6 days. Mortality was assessed on the basis of the agility and of comparative feeding of the hatched larvae. Tests were replicated 2 times.

- 5 In this test, compounds I.1-1, I.1-3, I.1-10, I.1-11, I.1-12, I.1-13, I.1-14, I.1-15, I.1-16, I.1-19, I.1-21, I.1-24, I.1-28, I.1-31, I.1-32, I.1-34, I.1-35, I.1-36, I.1-38, I.1-39, I.1-40, I.1-41, I.1-42, I.1-43, I.1-44, I.1-46, I.1-48, I.1-49, I.1-53, I.1-54, I.1-62, I.1-66, I.1-67, I.1-69, I.2-1, I.2-2, I.2-3, I.2-4, I.2-5, I.2-6, I.3-1, I.3-3, I.3-4, I.3-5, I.3-6, I.3-7, I.3-8, I.3-9, I.3-10, I.3-11, I.3-12, I.3-13, I.3-14, I.3-19, I.3-20, I.3-21, I.3-22, I.3-23, I.3-24, I.3-25, I.3-26, I.3-27, I.3-28, I.3-29, I.3-30, I.3-31, I.3-32, I.3-33, I.3-34, I.3-35, I.3-36, I.3-37, I.3-38, I.3-39, I.3-40, I.3-41, I.3-42, I.3-43, I.3-44, I.3-45, I.3-46, I.3-47, I.3-48, I.3-49, I.3-51, I.3-52, I.3-53, I.3-54, I.3-55, I.3-56, I.3-57, I.3-58, I.4-1, I.4-2, I.4-3, I.4-4, I.4-5, I.4-6, I.4-7, I.4-8, I.4-9, I.4-10, I.4-11, I.4-12, I.4-13, I.4-14, I.4-15, I.4-16, I.4-17, I.4-22 and I.4-23 at 2500 ppm showed over 75 % mortality.

15

4. Activity against Vetch aphid (*Megoura viciae*)

- The active compounds were formulated in 1:3 DMSO : water. Bean leaf disks were placed into microtiterplates filled with 0.8% agar-agar and 2.5 ppm OPUS™. The leaf disks were sprayed with 2.5 µl of the test solution and 5 to 8 adult aphids were placed into the microtiterplates which were then closed and kept at 22-24°C and 35-45% under fluorescent light for 6 days. Mortality was assessed on the basis of vital, reproduced aphids. Tests were replicated 2 times.

- 25 In this test, compounds I.1-12, I.1-19, I.1-32, I.1-49, I.1-50, I.1-53, I.2-9, I.3-1, I.3-3, I.3-4, I.3-5, I.3-6, I.3-7, I.3-8, I.3-9, I.3-10, I.3-11, I.3-12, I.3-13, I.3-14, I.3-19, I.3-20, I.3-21, I.3-22, I.3-23, I.3-24, I.3-25, I.3-26, I.3-27, I.3-28, I.3-29, I.3-30, I.3-32, I.3-33, I.3-34, I.3-35, I.3-36, I.3-37, I.3-38, I.3-39, I.3-40, I.3-41, I.3-42, I.3-43, I.3-44, I.3-45, I.3-47, I.3-49, I.3-51, I.3-52, I.3-53, I.3-54, I.3-55, I.3-56, I.3-57, I.3-58, I.4-1, I.4-2, I.4-3, I.4-4, I.4-5, I.4-6, I.4-7, I.4-8, I.4-9, I.4-10, I.4-11, I.4-12, I.4-13, I.4-14, I.4-15, I.4-16, I.4-17, I.4-22 and I.4-23 at 2500 ppm showed over 75 % mortality compared to 0% mortality of untreated controls.

30

5. Activity against Oat aphid (*Rhopalosiphum padi*)

35

- The active compounds were formulated in 1:3 DMSO : water. Barley leaf disk were placed into microtiterplates filled with 0.8% agar-agar and 2.5 ppm OPUS™. The leaf disks were sprayed with 2.5 µl of the test solution and 3 to 8 adult aphids were placed into the microtiterplates which were then closed and kept at 22-24°C and 35-45% humidity under fluorescent light for 5 days. Mortality was assessed on the basis of vital aphids. Tests were replicated 2 times.

40

In this test, compound I.3-1 at 2500 ppm showed over 75 % mortality compared to 0% mortality of untreated controls.

6. Activity against Cotton aphid (*Aphis gossypii*)

5

The active compounds were formulated in 50:50 acetone:water and 100 ppm Kinetic™ surfactant.

10 Cotton plants at the cotyledon stage (one plant per pot) were infested by placing a heavily infested leaf from the main colony on top of each cotyledon. The aphids were allowed to transfer to the host plant overnight, and the leaf used to transfer the aphids was removed. The cotyledons were dipped in the test solution and allowed to dry. After 5 days, mortality counts were made.

15 In this test, compound I.3-1, I.3-3, I.3-4, I.3-5, I.3-6, I.3-7, I.3-8, I.3-9, I.3-10, I.3-11, I.3-12, I.3-13, I.3-14, I.3-15, I.3-16, I.3-17, I.3-18, I.3-19, I.3-20, I.3-21, I.3-22, I.3-23, I.3-24, I.3-25, I.3-26, I.3-27, I.3-28, I.3-29, I.3-30, I.3-32, I.3-33, I.3-34, I.3-35, I.3-36, I.3-38, I.3-39, I.3-40, I.3-41, I.3-42, I.3-43, I.3-44, I.3-51, I.3-52, I.3-53, I.3-54, I.4-1, I.4-2, I.4-3, I.4-4, I.4-5, I.4-6, I.4-7, I.4-8, I.4-9, I.4-10, I.4-11, I.4-12, I.4-13 and I.4-16 at 300
20 ppm showed over 50% mortality.

7. Activity against Southern armyworm (*Spodoptera eridania*), 2nd instar larvae

25 The active compounds were formulated for testing the activity against insects and arachnids as a 10.000 ppm solution in a mixture of 35% acetone and water, which was diluted with water, if needed.

30 A Sieva lima bean leaf was dipped in the test solution and allowed to dry. The leaf was then placed in a petri dish containing a filter paper on the bottom and ten 2nd instar caterpillars. At 5 days, observations are made of mortality and reduced feeding.

35 In this test, compounds I.1-1, I.1-3, I.1-7, I.1-9, I.1-10, I.1-11, I.1-12, I.1-13, I.1-14, I.1-15, I.1-16, I.1-19, I.1-21, I.1-24, I.1-27, I.1-28, I.1-30, I.1-31, I.1-32, I.1-34, I.1-35, I.1-36, I.1-38, I.1-39, I.1-40, I.1-41, I.1-42, I.1-43, I.1-44, I.1-45, I.1-46, I.1-47, I.1-49, I.1-53, I.1-54, I.1-57, I.1-61, I.1-63, I.1-66, I.1-69, I.2-1, I.2-2, I.2-3, I.2-4, I.2-5, I.2-6, I.2-8, I.2-9, I.3-3, I.3-4, I.3-5, I.3-6, I.3-7, I.3-8, I.3-9, I.3-10, I.3-11, I.3-12, I.3-13, I.3-14, I.3-15, I.3-16, I.3-17, I.3-18, I.3-19, I.3-20, I.3-21, I.3-22, I.3-23, I.3-24, I.3-25, I.3-26, I.3-27, I.3-28, I.3-29, I.3-30, I.3-32, I.3-33, I.3-34, I.3-35, I.3-37, I.3-38, I.3-39, I.3-40, I.3-41, I.3-42, I.3-43, I.3-44, I.3-51, I.3-52, I.3-53, I.3-54, I.4-1, I.4-2, I.4-3, I.4-4, I.4-5, I.4-6, I.4-7, I.4-8, I.4-9, I.4-11, I.4-12, I.4-13, I.4-16, I.4-22 and I.4-23 at 300 ppm
40 showed over 75% mortality.

8. Activity against silverleaf whitefly (*bemisia argentifolii*)

The active compounds were formulated in 50:50 acetone:water and 100 ppm Kinetic™ surfactant.

5

Selected cotton plants were grown to the cotyledon state (one plant per pot). The cotyledons were dipped into the test solution to provide complete coverage of the foliage and placed in a well-vented area to dry. Each pot with treated seedling was placed in a plastic cup and 10 to 12 whitefly adults (approximately 3-5 day old) were introduced.

- 10 The insects were collected using an aspirator and an 0.6 cm, non-toxic Tygon™ tubing (R-3603) connected to a barrier pipette tip. The tip, containing the collected insects, was then gently inserted into the soil containing the treated plant, allowing insects to crawl out of the tip to reach the foliage for feeding. The cups were covered with a reusable screened lid (150 micron mesh polyester screen PeCap from Tetko Inc). Test
- 15 plants were maintained in the holding room at about 25°C and 20-40% relative humidity for 3 days avoiding direct exposure to the fluorescent light (24 hour photoperiod) to prevent trapping of heat inside the cup. Mortality was assessed 3 days after treatment of the plants.

- 20 In this test, compound I.3-1, I.3-3, I.3-4, I.3-5, I.3-6, I.3-8, I.3-9, I.3-10, I.3-11, I.3-12, I.3-13, I.3-14, I.3-15, I.3-16, I.3-17, I.3-19, I.3-20, I.3-22, I.3-23, I.3-25, I.3-26, I.3-27, I.3-28, I.3-30, I.4-1, I.4-2 and I.4-3 at 300 ppm showed over 90% mortality.

9. Activity against Diamond back moth (*plutella xylostella*)

25

The active compounds were formulated in 50:50 acetone:water and 0.1 % (vol/vol) Alkamuls EL 620 surfactant. A 6 cm leaf disk of cabbage leaves was dipped in the test solution for 3 seconds and allowed to air dry in a Petri plate lined with moist filter paper. The leaf disk was inoculated with 10 third instar larvae and kept at 25-27°C and 50-

30 60% humidity for 3 days. Mortality was assessed after 72 h of treatment.

- In this test, compounds I.1-1, I.1-7, I.1-9, I.1-15, I.1-19, I.1-21, I.1-24, I.1-27, I.1-28, I.1-29, I.1-31, I.1-32, I.1-45, I.1-47, I.1-61, I.1-63, I.3-5, I.3-6, I.3-7, I.3-8, I.3-9, I.3-10, I.3-11, I.3-12, I.3-13, I.3-14, I.3-15, I.3-16, I.3-17, I.3-18, I.3-19, I.3-20, I.3-21, I.3-22, I.3-23, I.3-24, I.3-25, I.3-26, I.3-27, I.3-28, I.3-29, I.3-30, I.3-31, I.3-32, I.3-33, I.3-34, I.3-35, I.3-36, I.3-37, I.3-38, I.3-39, I.3-40, I.3-41, I.3-42, I.3-43, I.3-44, I.3-45, I.3-46, I.3-47, I.3-48, I.3-49, I.3-51, I.3-52, I.3-53, I.3-54, I.3-55, I.3-56, I.3-57, I.3-58, I.3-59, I.3-60, I.3-61, I.3-62, I.3-63, I.4-1, I.4-2, I.4-3, I.4-4, I.4-5, I.4-6, I.4-7, I.4-8, I.4-9, I.4-10, I.4-11, I.4-12, I.4-13, I.4-16, I.4-17, I.4-18, I.4-19, and I.4-22 at 300 ppm showed over 75%
- 40 mortality.

10. Activity against Argentine ant (*Linepithema humile*), harvester ant (*Pogonomyrmex californicus*), acrobat ant (*Crematogaster spp.*), carpenter ant (*Camponotus floridanus*), fire ant (*Solenopsis invicta*), house fly (*Musca domestica*), stable fly (*Stomoxys calcitrans*), flesh fly (*Sarcophaga sp.*), yellowfever mosquito (*Aedes aegyptii*), house mosquito (*Culex quinquefasciatus*), malaria mosquito (*Anopheles albimanus*), German cockroach (*Blattella Germanica*), cat flea (*Ctenocephalides felis*), and brown dog tick (*Rhipicephalus sanguineus*) via glass contact

10 Glass vials were treated with 0.5 ml of a solution of active ingredient in acetone and allowed to dry. Insects or ticks were placed into each vial together with some food and moisture supply. The vials were kept at 22°C and were observed for treatment effects at various time intervals.

15 In this test, compounds I.3-4, I.3-5 and I.3-6 at 10 ppm showed over 70% mortality of yellowfever mosquito .

11. Activity against yellowfever mosquito (*Aedes aegyptii*), house mosquito (*Culex quinquefasciatus*) and malaria mosquito (*Anopheles albimanus*) larvae via water treatment

20 Well plates were used as test arenas. The active ingredient was dissolved in acetone and diluted with water to obtain the concentrations needed. The final solutions containing appr. 1% acetone were placed into each well. Approximately 10 mosquito larvae (4th-instars) in 1 ml water were added to each well. Larvae were fed one drop of liver powder each day. The dishes were covered and maintained at 22°C. Mortality was recorded daily and dead larvae and live or dead pupae were removed daily. At the end of the test remaining live larvae were recorded and percent mortality was calculated.

30 In this test, compounds I.1-37, I.1-38, I.1-49, I.1-69, I.3-4, I.3-5, I.3-6 and I.3-7 at 10 ppm showed over 70% mortality of yellowfever mosquito .

12. Activity against root-knot nematode (*Meloidogyne incognita*):

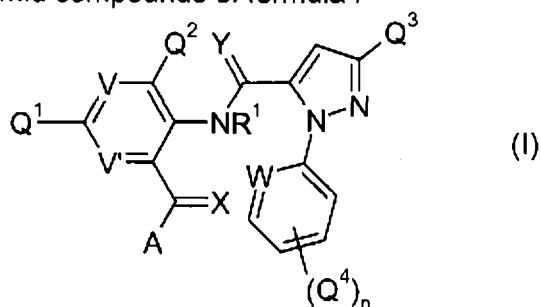
35 Test compounds are prepared and formulated into aqueous formulations using acetone. Tomato plants (var. Bonny Best) are grown in the greenhouse in plastic tubs (4 to 6 plants per tub). The plants and soil (a 50:50 mixture of sand and "New Egypt" sandy loam) are infested with M. incognita J2 (to establish the "in-house" colony, M. incognita J2 were initially acquired from Auburn University). The plants are kept pruned and are used on an "as needed" basis. The tomato plants are kept in the cylinder containing hydroponic solution and aerated until the nematodes are no longer present in the solution (usually about 60 days). The cultures are checked daily by eluting a small volume (approximately 20 ml) from the bottom of a funnel attached to the cylinder into a small

crystallizing dish and observed using a binocular dissecting scope. If needed for testing, the nematodes are cleaned and concentrated by pouring the culture solution through a sieve for cleaning and a sieve for concentrating. The nematodes are then resuspended in water to a concentration of approximately 20 to 50 nematodes per 50 μ l. These are
5 counted by putting 25 μ l of the nematode solution into a well of an unused well of an assay plate. The total is then multiplied by 2 for a final total of nematodes per 50 μ l of solution. To microtiter plates containing about 1.0 mg of compound, 80:20 acetone is added to each well and the solution is mixed to obtain the desired compound
10 concentration. The nematode solution is added to each plate. The plates are then sealed and they are placed in an incubator at 27°C and 50% (+/-2%) relative humidity. After 72 hours, the population mortality is read, whereby immobility of nematodes is regarded as mortality.

Comprises/comprising and grammatical variations thereof when used in this specification
15 are to be taken to specify the presence of stated features, integers, steps or components or groups thereof, but do not preclude the presence or addition of one or more other features, integers, steps, components or groups thereof.

THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

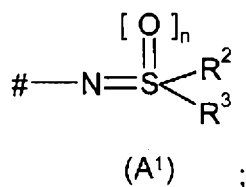
1. N-Thio-anthranilamid compounds of formula I



5 wherein

10 R^1 is hydrogen; or C_1 - C_{10} -alkyl, C_2 - C_{10} -alkenyl, C_2 - C_{10} -alkynyl, or C_3 - C_8 -cycloalkyl, each of which is unsubstituted or substituted with 1 to 5 groups independently selected from halogen, cyano, nitro, hydroxy, C_1 - C_{10} -alkoxy, C_1 - C_{10} -alkylthio, C_1 - C_{10} -alkylsulfinyl, C_1 - C_{10} -alkylsulfonyl, C_2 - C_{10} -alkoxycarbonyl, C_1 - C_{10} -alkylamino, di(C_1 - C_{10} -alkyl)amino and C_3 - C_8 -cycloalkylamino; or C_1 - C_{10} -alkylcarbonyl, C_1 - C_{10} -alkoxycarbonyl, C_1 - C_{10} -alkylaminocarbonyl, di(C_1 - C_{10} -alkyl)aminocarbonyl;

15 A is A^1



wherein

20 # denotes the binding site;

R^2 and R^3 each independently are R^6 or

25 R^2 and R^3 together with the sulfur atom to which they are attached form a saturated, partially unsaturated or unsaturated 3- to 8-membered ring which contains 1 to 4 heteroatoms selected from oxygen, nitrogen, sulfur, which ring can be fused with one or two saturated, partially unsaturated or unsaturated 5- to 6-membered rings which may contain 1 to 4 heteroatoms selected from oxygen, nitrogen, sulfur, wherein all of the above rings are unsubstituted or substituted by any combination of 1 to 6 groups R^8 ;

30

G is oxygen or sulfur;

- 5 R^6 is C_1 - C_{20} -alkyl, C_2 - C_{20} -alkenyl, C_2 - C_{20} -alkynyl, C_3 - C_8 -cycloalkyl, C_3 - C_8 -cycloalkenyl, C_3 - C_8 -cycloalkynyl, phenyl, naphthyl, biphenyl, or a saturated, partially unsaturated or unsaturated 3- to 8-membered ring system which contains 1 to 4 heteroatoms selected from oxygen, nitrogen, sulfur, wherein all of these groups are unsubstituted or substituted by any combination of 1 to 6 groups R^8 ;
- 10 R^8 is R^9 ; or two groups R^8 together with the atoms to which they are attached form a saturated, partially unsaturated or unsaturated 3- to 8-membered ring system which may contain 1 to 4 heteroatoms /heterogroups selected from oxygen, nitrogen, sulfur, SO and SO_2 , and which ring system is unsubstituted or substituted with any combination of 1 to 6 groups R^9 .
- 15 R^9 is R^{10} , R^{11} , $-C(=G)R^{10}$, $-C(=NOR^{10})R^{10}$, $-C(=NNR^{10}_2)R^{10}$, $-C(=G)OR^{10}$, $-C(=G)NR^{10}_2$, $-OC(=G)R^{10}$, $-OC(=G)OR^{10}$, $-NR^{10}C(=G)R^{10}$, $-N[C(=G)R^{10}]_2$, $-NR^{10}C(=G)OR^{10}$, $-C(=G)NR^{10}-NR^{10}_2$, $-C(=G)NR^{10}-NR^{10}[C(=G)R^{10}]$, $-NR^{10}-C(=G)NR^{10}_2$, $-NR^{10}-NR^{10}C(=G)R^{10}$, $-NR^{10}-N[C(=G)R^{10}]_2$, $-N[(C=G)R^{10}]-NR^{10}_2$, $-NR^{10}-NR^{10}[(C=G)GR^{10}]$, $-NR^{10}[(C=G)NR^{10}_2]$, $-NR^{10}[C=NR^{10}]R^{10}$, $-NR^{10}(C=NR^{10})NR^{10}_2$, $-O-NR^{10}_2$, $-O-NR^{10}(C=G)R^{10}$, $-SO_2NR^{10}_2$, $-NR^{10}SO_2R^{10}$, $-SO_2OR^{10}$, $-OSO_2R^{10}$, $-OR^{10}$, $-NR^{10}_2$, $-SR^{10}$, $-SiR^{10}_3$, $-PR^{10}_2$, $-P(=G)R^{10}$, $-SOR^{10}$, $-SO_2R^{10}$, $-PG_2R^{10}_2$, $-PG_3R^{10}_2$, or two groups R^9 together are $(=G)$, $(=N-R^{10})$, $(=CR^{10}_2)$, $(=CHR^{10})$, or $(=CH_2)$;
- 25 R^{10} is C_1 - C_{10} -alkyl, C_2 - C_{10} -alkenyl, C_2 - C_{10} -alkynyl, C_3 - C_8 -cycloalkyl, C_4 - C_8 -cycloalkenyl, C_3 - C_8 -cycloalkyl- C_1 - C_4 -alkyl, C_4 - C_8 -cycloalkenyl- C_1 - C_4 -alkyl, C_3 - C_8 -cycloalkyl- C_2 - C_4 -alkenyl, C_4 - C_8 -cycloalkenyl- C_2 - C_4 -alkenyl, C_1 - C_{10} -alkyl- C_3 - C_8 -cycloalkyl, C_2 - C_{10} -alkenyl- C_3 - C_8 -cycloalkyl, C_2 - C_{10} -alkynyl- C_3 - C_8 -cycloalkyl, C_1 - C_{10} -alkyl- C_4 - C_8 -cycloalkenyl, C_2 - C_{10} -alkenyl- C_4 - C_8 -cycloalkenyl, C_2 - C_{10} -alkynyl- C_4 - C_8 -cycloalkenyl, or a saturated, partially unsaturated or unsaturated 3- to 8-membered ring system which contains 1 to 4 heteroatoms selected from oxygen, nitrogen, sulfur, wherein the above groups are unsubstituted or substituted with any combination of from 1 to 6 groups R^{11} ;
- 30
- 35 R^{11} is halogen, cyano, nitro, hydroxy, mercapto, amino, formyl, C_1 - C_{10} -alkylcarbonyl, C_1 - C_{10} -alkoxy, C_2 - C_{10} -alkenyloxy, C_2 - C_{10} -alkynyloxy, C_1 - C_{10} -haloalkoxy, C_3 - C_{10} -haloalkenyloxy, C_3 - C_{10} -haloalkynyloxy, C_3 - C_8 -cycloalkoxy, C_4 - C_8 -cycloalkenyloxy, C_3 - C_8 -halocycloalkoxy, C_4 - C_8 -halocycloalkenyloxy, C_3 - C_8 -cycloalkyl- C_1 - C_4 -alkoxy, C_4 - C_8 -cycloalkenyl- C_1 - C_4 -alkoxy, C_3 - C_8 -cycloalkyl- C_2 - C_4 -alkenyloxy, C_4 - C_8 -cycloalkenyl- C_2 - C_4 -alkenyloxy, C_1 - C_{10} -alkyl- C_3 - C_8 -cycloalkoxy, C_1 - C_{10} -alkenyl- C_3 - C_8 -cycloalkoxy, C_1 - C_{10} -alkynyl- C_3 - C_8 -cycloalkoxy, C_1 - C_{10} -alkyl- C_3 - C_8 -cycloalkenyloxy, C_1 - C_{10} -alkenyl- C_3 - C_8 -
- 40

- cycloalkenyloxy, C₁-C₄-alkoxy-C₁-C₁₀-alkoxy, C₁-C₄-alkoxy-C₂-C₁₀-alkenyloxy, mono- or di(C₁-C₁₀-alkyl)carbamoyl, mono- or di(C₁-C₁₀-haloalkyl)carbamoyl, mono- or di(C₃-C₈-cycloalkyl)carbamoyl,
- 5 C₁-C₁₀-alkoxycarbonyl, C₃-C₈-cycloalkoxycarbonyl, C₁-C₁₀-alkylcarbonyloxy, C₃-C₈-cycloalkylcarbonyloxy, C₁-C₁₀-haloalkoxycarbonyl, C₁-C₁₀-haloalkylcarbonyloxy, C₁-C₁₀-alkanamido, C₁-C₁₀-haloalkanamido, C₂-C₁₀-alkenamido, C₃-C₈-cycloalkanamido, C₃-C₈-cycloalkyl-C₁-C₄-alkanamido, C₁-C₁₀-alkylthio, C₂-C₁₀-alkenylthio, C₂-C₁₀-alkynylthio, C₁-C₁₀-haloalkylthio, C₂-C₁₀-haloalkenylthio, C₂-C₁₀-haloalkynylthio, C₃-C₈-cycloalkylthio, C₃-C₈-cycloalkenylthio, C₃-C₈-halocycloalkylthio, C₃-C₈-halocycloalkenylthio, C₃-C₈-cycloalkyl-C₁-C₄-alkylthio, C₄-C₈-cycloalkenyl-C₁-C₄-alkylthio, C₃-C₈-cycloalkyl-C₂-C₄-alkenylthio, C₄-C₈-cycloalkenyl-C₂-C₄-alkenylthio, C₁-C₁₀-alkyl-C₃-C₈-cycloalkylthio, C₁-C₁₀-alkenyl-C₃-C₈-cycloalkylthio, C₁-C₁₀-alkynyl-C₃-C₈-cycloalkylthio, C₁-C₁₀-alkyl-C₃-C₈-cycloalkenylthio, C₁-C₁₀-alkenyl-C₃-C₈-cycloalkenylthio, C₁-C₁₀-alkenyl-C₃-C₈-cycloalkenylthio, C₁-C₁₀-alkylsulfinyl, C₂-C₁₀-alkenylsulfinyl, C₂-C₁₀-alkynylsulfinyl, C₁-C₁₀-haloalkylsulfinyl, C₂-C₁₀-haloalkenylsulfinyl, C₂-C₁₀-haloalkynylsulfinyl, C₃-C₈-cycloalkylsulfinyl, C₃-C₈-cycloalkenylsulfinyl, C₃-C₈-halocycloalkylsulfinyl, C₃-C₈-halocycloalkenylsulfinyl, C₃-C₈-cycloalkyl-C₁-C₄-alkylsulfinyl, C₄-C₈-cycloalkenyl-C₁-C₄-alkylsulfinyl, C₃-C₈-cycloalkyl-C₂-C₄-alkenylsulfinyl, C₄-C₈-cycloalkenyl-C₂-C₄-alkenylsulfinyl, C₁-C₁₀-alkyl-C₃-C₈-cycloalkylsulfinyl, C₁-C₁₀-alkenyl-C₃-C₈-cycloalkylsulfinyl, C₁-C₁₀-alkynyl-C₃-C₈-cycloalkylsulfinyl, C₁-C₁₀-alkyl-C₃-C₈-cycloalkenylsulfinyl, C₁-C₁₀-alkenyl-C₃-C₈-cycloalkenylsulfinyl, C₁-C₁₀-alkylsulfonyl, C₂-C₁₀-alkenylsulfonyl, C₂-C₁₀-alkynylsulfonyl, C₁-C₁₀-haloalkylsulfonyl, C₂-C₁₀-haloalkenylsulfonyl, C₂-C₁₀-haloalkynylsulfonyl, C₃-C₈-cycloalkylsulfonyl, C₃-C₈-cycloalkenylsulfonyl, C₃-C₈-halocycloalkylsulfonyl, C₃-C₈-halocycloalkenylsulfonyl, C₃-C₈-cycloalkyl-C₁-C₄-alkylsulfonyl, C₄-C₈-cycloalkenyl-C₁-C₄-alkylsulfonyl, C₃-C₈-cycloalkyl-C₂-C₄-alkenylsulfonyl, C₄-C₈-cycloalkenyl-C₂-C₄-alkenylsulfonyl, C₁-C₁₀-alkyl-C₃-C₈-cycloalkylsulfonyl, C₁-C₁₀-alkenyl-C₃-C₈-cycloalkylsulfonyl, C₁-C₁₀-alkynyl-C₃-C₈-cycloalkylsulfonyl, C₁-C₁₀-alkyl-C₃-C₈-cycloalkenylsulfonyl, C₁-C₁₀-alkenyl-C₃-C₈-cycloalkenylsulfonyl, di(C₁-C₁₀-alkyl)amino, C₁-C₁₀-alkylamino, C₂-C₁₀-alkenylamino, C₂-C₁₀-alkynylamino, C₁-C₁₀-alkyl-C₂-C₁₀-alkenylamino, C₁-C₁₀-haloalkylamino, C₂-C₁₀-haloalkenylamino, C₂-C₁₀-haloalkynylamino, C₃-C₈-cycloalkylamino, C₃-C₈-cycloalkenylamino, C₃-C₈-halocycloalkylamino, C₃-C₈-halocycloalkenylamino, C₃-C₈-cycloalkyl-C₁-C₄-alkylamino, C₄-C₈-cycloalkenyl-C₁-C₄-alkylamino, C₃-C₈-cycloalkyl-C₂-C₄-alkenylamino, C₄-C₈-cycloalkenyl-C₂-C₄-alkenylamino, C₁-C₁₀-alkyl-C₃-C₈-cycloalkylamino, C₁-C₁₀-alkenyl-C₃-C₈-cycloalkylamino, C₁-C₁₀-alkynyl-C₃-C₈-cycloalkylamino, C₁-C₁₀-alkyl-C₃-C₈-cycloalkenylamino, C₁-C₁₀-alkenyl-C₃-C₈-cycloalkenylamino,
- 40

5 tri(C₁-C₁₀-alkyl)silyl, aryl, aryloxy, arylthio, arylamino, aryl-C₁-C₄-alkoxy, aryl-C₃-C₄-alkenyloxy, aryl-C₁-C₄-alkylthio, aryl-C₂-C₄-alkenylthio, aryl-C₁-C₄-alkylamino, aryl-C₃-C₄-alkenylamino, aryl-di(C₁-C₄-alkyl)silyl, triarylsilyl, wherein aryl is phenyl, naphthyl or biphenyl, or a saturated, partially
10 unsaturated or unsaturated 3- to 8-membered ring system which contains 1 to 4 heteroatoms selected from oxygen, nitrogen, sulfur, wherein these aryl and these heterocyclic ringsystems are unsubstituted or substituted with any combination of from 1 to 6 groups selected from halogen, cyano, nitro, amino, hydroxy, mercapto, C₁-C₄-alkyl, C₁-C₄-haloalkyl, C₃-C₈-cycloalkyl, C₁-C₄-alkoxy, C₁-C₄-haloalkoxy, C₁-C₄-alkylthio, C₁-C₄-haloalkylthio, di(C₁-C₄-alkyl)amino, C₁-C₄-alkylamino, C₁-C₄-haloalkylamino, formyl and C₁-C₄-alkylcarbonyl;

15 Q¹ and Q² each independently are hydrogen, halogen, cyano, SCN, nitro, hydroxy, C₁-C₁₀-alkyl, C₁-C₁₀-haloalkyl, C₂-C₁₀-alkenyl, C₂-C₁₀-haloalkenyl, C₂-C₁₀-alkynyl, C₃-C₁₀-haloalkynyl, C₃-C₈-cycloalkyl, C₃-C₈-halocycloalkyl, C₁-C₁₀-alkoxy, C₁-C₁₀-haloalkoxy, C₁-C₁₀-alkylthio, C₁-C₁₀-haloalkylthio, C₁-C₁₀-alkylsulfinyl, C₁-C₁₀-haloalkylsulfinyl, C₁-C₁₀-alkylsulfonyl, C₁-C₁₀-haloalkylsulfonyl, C₁-C₁₀-alkylsulfonyloxy, C₁-C₁₀-haloalkylsulfonyloxy, C₁-C₁₀-alkylamino, di(C₁-C₁₀-alkyl)amino, C₃-C₈-cycloalkylamino, alkylcarbonyl, C₁-C₁₀-alkoxycarbonyl, C₁-C₁₀-alkylaminocarbonyl, di(C₁-C₁₀-alkyl)aminocarbonyl, or tri(C₁-C₁₀)-alkylsilyl, or

25 Q¹ and Q² each independently are phenyl, benzyl or phenoxy, wherein each ring is unsubstituted or substituted with any combination of from 1 to 3 substituents independently selected from the group halogen, cyano, nitro, C₁-C₁₀-alkyl, C₁-C₁₀-haloalkyl, C₂-C₁₀-alkenyl, C₂-C₁₀-haloalkenyl, C₂-C₁₀-alkynyl, C₃-C₁₀-haloalkynyl, C₃-C₈-cycloalkyl, C₃-C₈-halocycloalkyl, C₁-C₁₀-alkoxy, C₁-C₁₀-haloalkoxy, C₁-C₁₀-alkylthio, C₁-C₁₀-alkylsulfinyl, C₁-C₁₀-alkylsulfonyl, C₁-C₁₀-alkylamino, di(C₁-C₁₀-alkyl)amino, C₃-C₈-cycloalkylamino, C₁-C₁₀-alkyl-C₃-C₈-cycloalkylamino, C₁-C₁₀-alkylcarbonyl, C₁-C₁₀-alkoxycarbonyl, C₁-C₁₀-alkylaminocarbonyl, di(C₁-C₁₀-alkyl)aminocarbonyl and tri(C₁-C₁₀)-alkylsilyl;

35 Q³ is halogen; or C₁-C₁₀-alkyl, C₁-C₁₀-haloalkyl, C₂-C₁₀-alkenyl, C₂-C₁₀-haloalkenyl, C₂-C₁₀-alkynyl, C₃-C₁₀-haloalkynyl, C₃-C₈-cycloalkyl, C₃-C₈-halocycloalkyl, C₁-C₁₀-alkyl-C₃-C₈-cycloalkyl, C₁-C₁₀-haloalkyl-C₃-C₈-cycloalkyl, each unsubstituted or independently substituted with 1 to 2 groups selected from cyano, C₁-C₁₀-alkoxy, C₁-C₁₀-haloalkoxy, C₁-C₁₀-alkylthio, C₁-C₁₀-haloalkylthio, C₁-C₁₀-alkylsulfinyl, C₁-C₁₀-haloalkylsulfinyl, C₁-C₁₀-alkylsulfonyl, C₁-C₁₀-haloalkylsulfonyl, and C₁-C₁₀-alkoxycarbonyl; or

Q³ is OR¹⁴, S(O)_qR¹⁴, NR¹⁵R¹⁶, OS(O)₂R¹⁷, NR¹⁶S(O)₂R¹⁷, C(S)NH₂, C(R¹⁸)=NOR¹⁸, C₃-C₈-cycloalkyl-C₁-C₄-alkyl, C₁-C₁₀-alkylaminothiocarbonyl, or di(C₁-C₁₀-alkyl)aminothiocarbonyl;

R¹⁴ is C₁-C₁₀-alkyl, C₁-C₁₀-haloalkyl, C₂-C₁₀-alkenyl, C₂-C₁₀-haloalkenyl, C₂-C₁₀-alkynyl, C₃-C₁₀-haloalkynyl, C₃-C₈-cycloalkyl, C₃-C₈-halocycloalkyl, C₃-C₈-cycloalkyl-C₁-C₄-alkyl, C₁-C₄-alkyl-C₃-C₈-cycloalkyl, C₃-C₈-halocycloalkyl-C₁-C₄-alkyl, C₁-C₄-haloalkyl-C₃-C₈-cycloalkyl, or C₁-C₁₀-haloalkylcarbonyl, each unsubstituted or substituted with 1 R¹⁹;

R¹⁵ is C₁-C₁₀-alkyl, C₁-C₁₀-haloalkyl, C₂-C₁₀-alkenyl, C₂-C₁₀-haloalkenyl, C₂-C₁₀-alkynyl, C₃-C₁₀-haloalkynyl, C₃-C₈-cycloalkyl, C₃-C₈-halocycloalkyl, C₁-C₄-alkyl-C₃-C₈-cycloalkyl, C₁-C₄-haloalkyl-C₃-C₈-cycloalkyl, or C₁-C₁₀-haloalkylcarbonyl, each unsubstituted or substituted with 1 R¹⁹;

R¹⁶ is hydrogen; or C₁-C₁₀-alkyl, C₁-C₁₀-haloalkyl, C₂-C₁₀-alkenyl, C₂-C₁₀-haloalkenyl, C₂-C₁₀-alkynyl, C₃-C₁₀-haloalkynyl, C₃-C₈-cycloalkyl, C₃-C₈-halocycloalkyl, C₁-C₄-alkyl-C₃-C₈-cycloalkyl, or C₁-C₄-haloalkyl-C₃-C₈-cycloalkyl, each unsubstituted or substituted with 1 R¹⁹;

R¹⁷ is C₁-C₁₀-alkyl, C₁-C₁₀-haloalkyl, C₂-C₁₀-alkenyl, C₂-C₁₀-haloalkenyl, C₂-C₁₀-alkynyl, C₃-C₁₀-haloalkynyl, C₃-C₈-cycloalkyl, C₃-C₈-halocycloalkyl, C₁-C₄-alkyl-C₃-C₈-cycloalkyl, or C₁-C₄-haloalkyl-C₃-C₈-cycloalkyl, each unsubstituted or substituted with 1 R¹⁹;

R¹⁹ is cyano, nitro, C₁-C₁₀-alkoxy, C₁-C₁₀-haloalkoxy, C₁-C₁₀-alkylthio, C₁-C₁₀-haloalkylthio, C₁-C₁₀-alkylsulfinyl, C₁-C₁₀-haloalkylsulfinyl, C₁-C₁₀-alkylsulfonyl, C₁-C₁₀-haloalkylsulfonyl, C₁-C₁₀-alkoxycarbonyl, C₁-C₁₀-alkylamino, or di(C₁-C₁₀-alkyl)amino; or

R¹⁹ is phenyl or a heteroaromatic 5- or 6-membered ring which contains 1 to 4 heteroatoms selected from oxygen, nitrogen, sulfur, the phenyl radical and the heteroaromatic ring being unsubstituted or substituted with any combination of from 1 to 3 groups selected from halogen, cyano, nitro, C₁-C₁₀-alkyl, C₁-C₁₀-haloalkyl, C₂-C₁₀-alkenyl, C₂-C₁₀-haloalkenyl, C₂-C₁₀-alkynyl, C₃-C₁₀-haloalkynyl, C₃-C₈-cycloalkyl, C₃-C₈-halocycloalkyl, C₁-C₁₀-alkoxy, C₁-C₁₀-haloalkoxy, C₁-C₁₀-alkylthio, C₁-C₁₀-alkylsulfinyl, C₁-C₁₀-alkylsulfonyl, C₁-C₁₀-alkylamino, di(C₁-C₁₀-alkyl)amino, C₃-C₈-cycloalkylamino, C₁-C₁₀-alkyl-C₃-C₈-cycloalkylamino, C₁-C₁₀-alkylcarbonyl, C₁-C₁₀-alkoxycarbonyl, C₁-C₁₀-alkylaminocarbonyl, di(C₁-C₁₀-alkyl)aminocarbonyl and tri(C₁-C₁₀-alkyl)silyl;

R¹⁸ is the same or different: hydrogen, C₁-C₁₀-alkyl, or C₁-C₁₀-haloalkyl;

q is 0, 1 or 2;

Q⁴ is halogen, cyano, nitro, hydroxy, COOH, C(O)NH₂, C₁-C₁₀-alkyl, C₁-C₁₀-haloalkyl, C₂-C₁₀-alkenyl, C₂-C₁₀-haloalkenyl, C₂-C₁₀-alkynyl, C₃-C₁₀-haloalkynyl, C₃-C₈-cycloalkyl, C₃-C₈-halocycloalkyl, C₁-C₁₀-alkoxy, C₁-C₁₀-haloalkoxy, C₁-C₁₀-alkylthio, C₁-C₁₀-haloalkylthio, C₁-C₁₀-alkylsulfinyl, C₁-C₁₀-haloalkylsulfinyl, C₁-C₁₀-alkylsulfonyl, C₁-C₁₀-haloalkylsulfonyl, C₁-C₁₀-alkylamino, di(C₁-C₁₀-alkyl)amino, C₃-C₈-cycloalkylamino, C₁-C₁₀-alkylcarbonyl, C₁-C₁₀-alkoxycarbonyl, C₁-C₁₀-alkylaminocarbonyl, di(C₁-C₁₀-alkyl)aminocarbonyl or tri(C₁-C₁₀)-alkylsilyl; or

Q⁴ is phenyl, benzyl, benzyloxy, phenoxy, a 5- or 6-membered heteroaromatic ring which contains 1 to 4 heteroatoms selected from oxygen, nitrogen, sulfur or an aromatic 8-, 9- or 10-membered fused heterobicyclic ring system which contains 1 to 4 heteroatoms selected from oxygen, nitrogen, sulfur, wherein each of the above ring systems is unsubstituted or substituted with any combination of from 1 to 3 groups selected from halogen, cyano, nitro, C₁-C₁₀-alkyl, C₁-C₁₀-haloalkyl, C₂-C₁₀-alkenyl, C₂-C₁₀-haloalkenyl, C₂-C₁₀-alkynyl, C₃-C₁₀-haloalkynyl, C₃-C₈-cycloalkyl, C₃-C₈-halocycloalkyl, C₁-C₁₀-alkoxy, C₁-C₁₀-haloalkoxy, C₁-C₁₀-alkylthio, C₁-C₁₀-alkylsulfinyl, C₁-C₁₀-alkylsulfonyl, C₁-C₁₀-alkylamino, di(C₁-C₁₀-alkyl)amino, C₃-C₈-cycloalkylamino, C₁-C₁₀-alkyl-C₃-C₈-cycloalkylamino, C₁-C₁₀-alkylcarbonyl, C₁-C₁₀-alkoxycarbonyl, C₁-C₁₀-alkylaminocarbonyl, di(C₁-C₁₀-alkyl)aminocarbonyl and tri(C₁-C₁₀)-alkylsilyl;

X and Y are each independently oxygen or sulfur;

V and V' are each independently N or CQ²;

W is N, CH or CQ⁴;

n is 0 or 1;

p is 0, 1, 2, 3, or 4;

or the enantiomers or salts or N-oxides thereof.

2. N-Thio-anthranilamid compounds of formula I according to claim 1 wherein X and Y are oxygen.

3. N-Thio-anthranilamid compounds of formula I according to any one of claims 1 or 2 wherein
V and V' are CH.
- 5 4. N-Thio-anthranilamid compounds of formula I according to any one of claims 1 to 3 wherein
W is N;
- 10 R¹ is hydrogen or C₁-C₄-alkyl;
- 15 Q¹ is halogen, cyano, SCN, nitro, hydroxy, C₁-C₁₀-alkyl, C₁-C₁₀-haloalkyl, C₃-C₈-cycloalkyl, C₁-C₁₀-alkoxy, C₁-C₁₀-haloalkoxy, C₁-C₁₀-alkylthio, C₁-C₁₀-haloalkylthio, C₁-C₁₀-alkylsulfonyl, C₁-C₁₀-alkylsulfonyloxy, C₁-C₁₀-alkylamino or di(C₁-C₁₀-alkyl)amino;
- 20 Q² is halogen, cyano, SCN, nitro, hydroxy, C₁-C₁₀-alkyl, C₁-C₁₀-haloalkyl, C₃-C₈-cycloalkyl, C₁-C₁₀-alkoxy, C₁-C₁₀-haloalkoxy, C₁-C₁₀-alkylthio, C₁-C₁₀-haloalkylthio, C₁-C₁₀-alkylsulfonyl, C₁-C₁₀-alkylsulfonyloxy, C₁-C₁₀-alkylamino or di(C₁-C₁₀-alkyl)amino;
- 25 Q³ is halogen, C₁-C₁₀-alkyl, C₁-C₁₀-haloalkyl, C₂-C₁₀-alkynyl, C₃-C₈-cycloalkyl, C₃-C₈-halocycloalkyl, each unsubstituted or independently substituted with 1 to 2 groups selected from cyano, C₁-C₁₀-alkoxy, C₁-C₁₀-haloalkoxy or C₁-C₁₀-alkylthio, or
- 30 Q³ is OR¹⁴, S(O)_qR¹⁴, NR¹⁵R¹⁶, OS(O)₂R¹⁷, C(S)NH₂, C(R¹⁸)=NOR¹⁸; wherein
R¹⁴ is C₁-C₁₀-alkyl or C₃-C₈-cycloalkyl unsubstituted or substituted with 1 R¹⁹; and
R¹⁵ is C₁-C₁₀-alkyl, C₁-C₁₀-haloalkyl, C₂-C₁₀-alkenyl, C₂-C₁₀-alkynyl, each unsubstituted or substituted with 1 R¹⁹; and
35 R¹⁶ is hydrogen, C₁-C₁₀-alkyl, C₁-C₁₀-haloalkyl, C₂-C₁₀-alkenyl, C₂-C₁₀-alkynyl, each unsubstituted or substituted with 1 R¹⁹; and
R¹⁷ is C₁-C₁₀-alkyl, C₁-C₁₀-haloalkyl, C₂-C₁₀-alkenyl, C₂-C₁₀-alkynyl, C₃-C₈-cycloalkyl, each unsubstituted or substituted with 1 R¹⁹; and
40 R¹⁸ is hydrogen, C₁-C₁₀-alkyl, or C₁-C₁₀-haloalkoxy, and

R¹⁹ is cyano, nitro, C₁-C₁₀-alkoxy, C₁-C₁₀-haloalkoxy, C₁-C₁₀-alkylthio, C₁-C₁₀-haloalkylthio;

Q⁴ is halogen, cyano, nitro, C₁-C₁₀-alkyl, C₁-C₁₀-haloalkyl, C₁-C₁₀-alkoxy, C₁-C₁₀-haloalkoxy, C₁-C₁₀-alkylthio, C₁-C₁₀-haloalkylthio, C₁-C₁₀-alkylsulfinyl, C₁-C₁₀-haloalkylsulfinyl, C₁-C₁₀-alkylsulfonyl, C₁-C₁₀-haloalkylsulfonyl, or C₁-C₁₀-alkoxycarbonyl, and is in the ortho-position; and

p is 1.

5. N-Thio-anthranilamid compounds of formula I according to any one of claims 1 to 4 wherein

W is N;

R¹ is hydrogen;

Q¹ is hydrogen, halogen, cyano, C₁-C₄-alkyl or C₁-C₄-haloalkyl;

Q² is halogen, cyano, C₁-C₄-alkyl or C₁-C₄-haloalkyl;

Q³ is halogen, C₁-C₄-haloalkyl or C₁-C₄-haloalkoxy;

Q⁴ is halogen or C₁-C₄-haloalkyl and is in the ortho-position; and

p is 1.

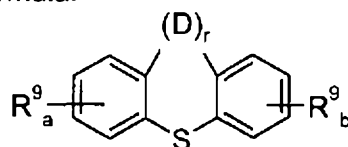
6. N-Thio-anthranilamid compounds of formula I according to any one of claims 1 to 5 wherein

A is A¹;

R² and R³ each independently are is C₁-C₁₀-alkyl, C₂-C₁₀-alkenyl, C₂-C₁₀-alkynyl, C₃-C₈-cycloalkyl, or phenyl, wherein these groups are unsubstituted or substituted by any combination of 1 to 6 groups selected from R¹¹,

R¹¹ is halogen, cyano, nitro, hydroxy, mercapto, amino, C₁-C₁₀-alkoxy, C₁-C₁₀-haloalkoxy, C₃-C₈-cycloalkoxy, C₁-C₁₀-alkoxycarbonyl, C₁-C₁₀-alkylcarbonyloxy, C₁-C₁₀-alkanamido, C₁-C₁₀-alkylthio, C₁-C₁₀-alkylsulfinyl, C₁-C₁₀-alkylsulfonyl, di(C₁-C₁₀-alkyl)amino or C₁-C₁₀-alkylamino; or

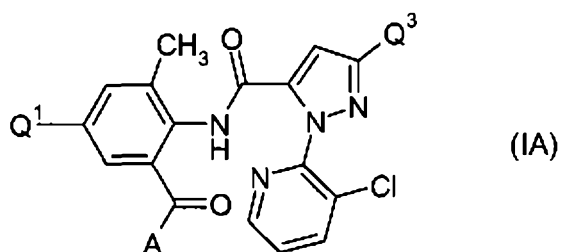
R^2 and R^3 together with the sulfur atom to which they are attached form a unit SR^2R^3 of the following formula:



wherein

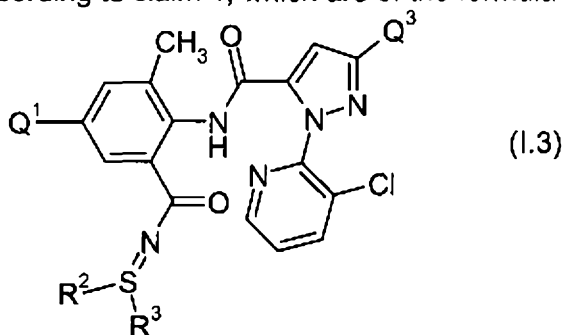
- 5 r is 0 or 1;
 D is a direct bond, branched or straight C_1 - C_4 -alkylene, O, $S(O)_{0,1,2}$ or NR^i , preferably CH_2 , O, or NR^i ;
 R^9 is as defined above;
 R^i is hydrogen, C_1 - C_4 -alkyl, C_1 - C_4 -alkylcarbonyl, C_1 - C_4 -alkoxycarbonyl, C_1 - C_4 -alkylaminocarbonyl, di(C_1 - C_4 -alkyl)aminocarbonyl, or C_1 - C_4 -alkylsulfonyl;
 10 a, b are the same or different 0, 1, 2, 3 or 4, preferably 0, 1, or 2.

7. Compounds of formula I according to claim 1, where
 15 both V and V' are CH;
 X is oxygen;
 Y is oxygen;
 A is a radical A1;
 n is 0
 20 W is N;
 R1 is hydrogen;
 Q1 is hydrogen, halogen, cyano, C_1 - C_4 -alkyl or C_1 - C_4 -haloalkyl;
 Q2 is halogen, cyano, C_1 - C_4 -alkyl or C_1 - C_4 -haloalkyl;
 Q3 is halogen, C_1 - C_4 -haloalkyl or C_1 - C_4 -haloalkoxy;
 25 Q4 is halogen or C_1 - C_4 -haloalkyl and is in the ortho-position; and
 p is 1.
8. Compounds of formula I according to claim 7, where R^2 and R^3 each
 30 independently are phenyl, C_1 - C_6 -alkyl, C_2 - C_6 -alkenyl, or C_2 - C_6 -alkynyl, which are unsubstituted or substituted with any combination of 1 to 6 groups selected from halogen and cyano.
9. Compounds of formula I according to claim 7, where R^2 and R^3 each
 35 independently are C_1 - C_4 -alkyl, phenylmethyl, allylmethyl, propargylmethyl, or together with the sulfur atom to which they are attached form a 3- to 6-membered saturated ring which contains 1 to 3 heteroatoms selected from sulfur and oxygen.
10. Compounds according to claim 1, which are of the formula I.A



where A is a radical A1 as defined in claim 1 and Q¹ and Q³ are as defined in claim 1.

- 5 11. Compounds according to claim 1, which are of the formula I.3



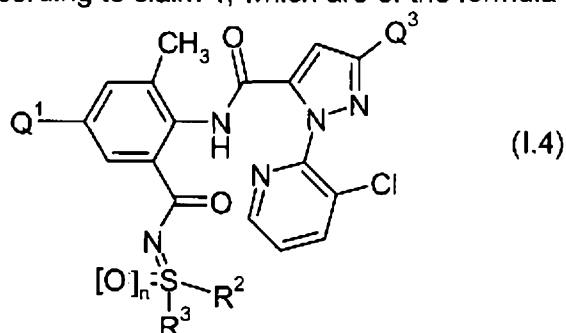
where, Q¹, Q³, R² and R³ are as defined in each of rows 1 to 68 of the following table:

	Q ¹	Q ³	R ²	R ³
1	Cl	CF ₃	i-C ₃ H ₇	i-C ₃ H ₇
2	H	Br	CH ₃	CH ₃
3	Cl	Br	CH ₂ CH ₃	CH ₂ CH ₃
4	Cl	Br	CH ₃	CH ₃
5	Cl	Br	i-C ₃ H ₇	i-C ₃ H ₇
6	Cl	CF ₃	i-C ₃ H ₇	i-C ₃ H ₇
7	H	Br	CH ₃	CH ₃
8	Cl	CF ₃	CH ₃	CH ₃
9	H	Br	n-C ₃ H ₇	CH ₃
10	H	CF ₃	n-C ₃ H ₇	CH ₃
11	Cl	Br	n-C ₃ H ₇	CH ₃
12	Cl	Br	n-C ₅ H ₁₁	CH ₂ CH ₂ OH
13	H	Br	n-C ₅ H ₁₁	CH ₂ CH ₂ OH
14	Cl	CF ₃	CH ₃	n-C ₃ H ₇
15	I	CF ₃	CH ₃	n-C ₃ H ₇
16	I	Br	CH ₃	n-C ₃ H ₇
17	H	CF ₃	n-C ₅ H ₁₁	CH ₂ CH ₂ OH
18	I	Br	n-C ₅ H ₁₁	CH ₂ CH ₂ OH
19	I	Br	i-C ₃ H ₇	i-C ₃ H ₇
20	I	CF ₃	i-C ₃ H ₇	i-C ₃ H ₇
21	H	Br	i-C ₃ H ₇	i-C ₃ H ₇

	Q ¹	Q ³	R ²	R ³
22	I	Br	CH ₃	CH ₃
23	I	CF ₃	CH ₃	CH ₃
24	H	CF ₃	CH ₃	CH ₃
25	Cl	Br	CH ₂ CH ₃	CH ₃
26	H	Br	CH ₂ CH ₃	CH ₃
27	I	Br	CH ₂ CH ₃	CH ₃
28	Cl	CF ₃	CH ₂ CH ₃	CH ₃
29	H	CF ₃	CH ₃	CH ₂ CH ₃
30	I	CF ₃	CH ₂ CH ₃	CH ₃
31	H	CF ₃	i-C ₃ H ₇	i-C ₃ H ₇
32	Cl	CF ₃	n-C ₅ H ₁₁	CH ₂ CH ₂ OH
33	I	CF ₃	n-C ₅ H ₁₁	CH ₂ CH ₂ OH
34	Cl	CF ₃	CH ₃	p-F-C ₆ H ₄
35	Cl	Br	CH ₃	p-F-C ₆ H ₄
36	H	Br	CH ₃	p-F-C ₆ H ₄
37	H	CF ₃	CH ₃	p-F-C ₆ H ₄
38	I	CF ₃	CH ₃	p-F-C ₆ H ₄
39	I	Br	CH ₃	p-F-C ₆ H ₄
40	Cl	Br	CH ₂ CH ₂ Cl	CH ₂ CH ₃
41	Cl	Br	CH ₂ CH ₃	CHCH ₂
42	H	Br	CH ₂ CH ₃	CHCH ₂
43	I	Br	CH ₂ CH ₃	CHCH ₂
44	I	Br	CH ₂ CH ₂ Cl	CH ₂ CH ₃
45	Cl	OCH ₂ CCH	i-C ₃ H ₇	i-C ₃ H ₇
46	I	OCH ₂ CCH	i-C ₃ H ₇	i-C ₃ H ₇
47	Cl	OCH ₂ CCH	CH ₃	p-F-C ₆ H ₄
48	I	OCH ₂ CCH	CH ₃	p-F-C ₆ H ₄
49	Cl	OCH ₂ CCH	CH ₂ CH ₂ OH	n-C ₅ H ₁₁
50	I	OCH ₂ CCH	CH ₂ CH ₂ OH	n-C ₅ H ₁₁
51	H	CF ₃	CH ₂ CH ₃	CH ₂ CH ₂ Cl
52	I	CF ₃	CH ₂ CH ₂ Cl	CH ₂ CH ₃
53	CN	CF ₃	n-C ₃ H ₇	CH ₃
54	CN	CF ₃	p-F-C ₆ H ₄	CH ₃
55	CN	CF ₃	CH ₃	CH ₃
56	CN	Br	n-C ₃ H ₇	CH ₃
57	CN	Br	p-F-C ₆ H ₄	CH ₃
58	CN	Br	n-C ₅ H ₁₁	CH ₂ CH ₂ OH
59	CN	Br	i-C ₃ H ₇	i-C ₃ H ₇
60	CN	Br	CH ₃	CH ₃
61	CN	Br	CH ₂ CH ₃	CH ₃

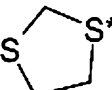
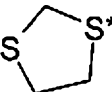
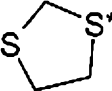
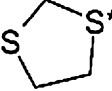
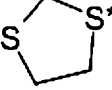
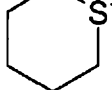
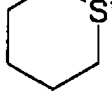
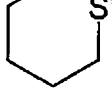
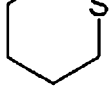
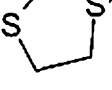
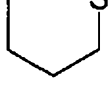
	Q ¹	Q ³	R ²	R ³
62	CN	Br	CH ₂ CH ₃	CHCH ₂
63	CN	Br	CH ₃	s-C ₄ H ₉
64	CN	CF ₃	CH ₂ CH ₃	CHCH ₂
65	CN	CF ₃	CH ₃	CH ₂ CH ₃
66	CN	CF ₃	CH ₂ CH ₂ OH	n-C ₅ H ₁₁
67	CN	CF ₃	s-C ₄ H ₉	CH ₃
68	CN	CF ₃	i-C ₃ H ₇	i-C ₃ H ₇

12. Compounds according to claim 1, which are of the formula I.4



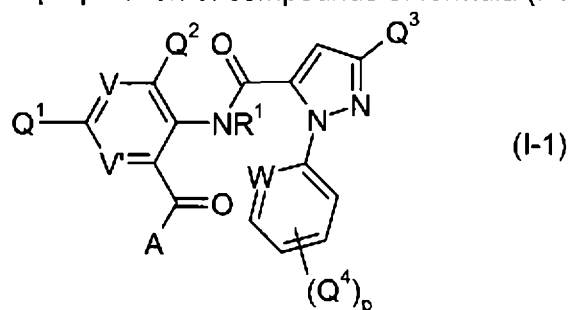
5 where, Q¹, Q³, and the radical S[O]_nR²R³ are as defined in each of rows 1 to 23 of the following table:

	Q ¹	Q ³	S[O] _n R ² R ³
1	Cl	Br	
2	I	Br	
3	I	CF ₃	
4	H	CF ₃	
5	Cl	CF ₃	

	Q ¹	Q ³	S[O] _n R ² R ³
6	Cl	Br	
7	I	Br	
8	H	CF ₃	
9	H	Br	
10	I	CF ₃	
11	I	CF ₃	
12	Cl	Br	
13	I	Br	
14	Cl	OCH ₂ CCH	
15	Cl	OCH ₂ CCH	
16	CN	CF ₃	

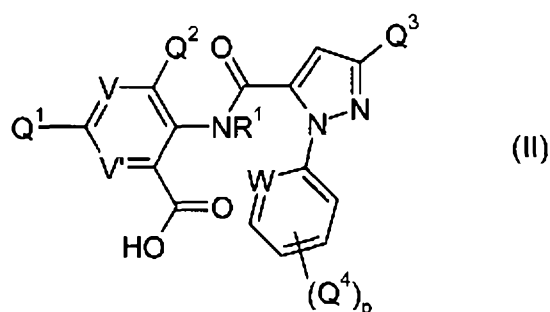
	Q ¹	Q ³	S[O] _n R ² R ³
17	CN	Br	
18	CN	Br	
19	CN	Br	
20	CN	CF ₃	
21	CN	CF ₃	
22	Cl	Br	
23	Cl	CF ₃	[CH ₂ CH ₂ OH][(CH ₂) ₄ CH ₃]S(=O)-

13. A process for the preparation of compounds of formula (I-1)

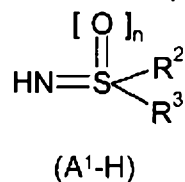


5

wherein the variables are as defined for formula (I) in claim 1, characterized in that an activated derivative of a carboxylic acid of the formula (II)

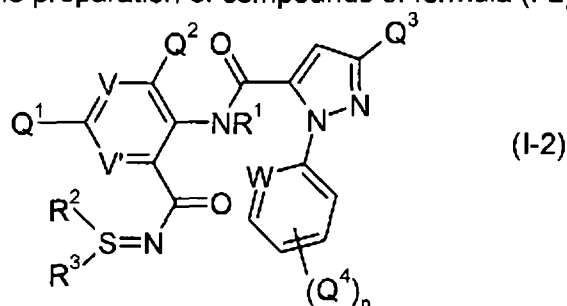


wherein the variables are as defined for formula (I) is reacted in the presence of a base with a compound of the formula A¹-H,

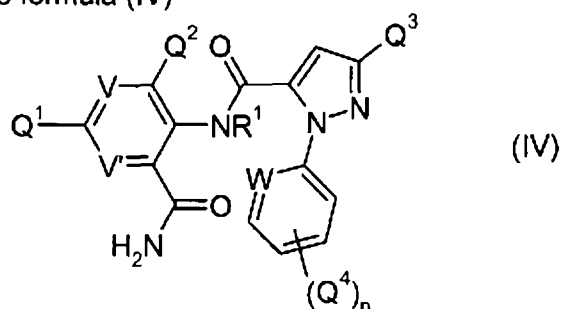


5 wherein the variables are as defined for formula (I) according to claim 1.

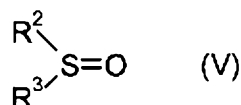
14. A process for the preparation of compounds of formula (I-2)



10 wherein the variables are as defined for formula (I) in claim 1, characterized in that an amide of the formula (IV)



wherein the variables are as defined for formula (I) in claim 1, is reacted with a sulfoxide of the formula (V),



15 wherein R² and R³ are as defined for formula (I) in claim 1, in the presence of a condensating agent.

15. A compound prepared by the process according to claim 13 or claim 14.

16. Use of compounds of formula I as defined in any one of claims 1 to 12 for combating insects, acarids, or nematodes.
- 5 17. Compositions comprising a pesticidally or parasitically active amount of compounds of formula I as defined in any one of claim 1 to 12 and an agronomically or veterinarily acceptable carrier
- 10 18. Use of a parasitically effective amount of compounds of formula I as defined in any one of claims 1 to 12 or the compositions as defined in claim 17 or their enantiomers or veterinarily acceptable salts for treating, controlling, preventing or protecting animals against infestation or infection by parasites.
- 15 19. A method for the control of insects, acarids or nematodes by contacting the insect, acarid or nematode or their food supply, habitat, breeding ground or their locus with a pesticidally effective amount of compounds of formula I as defined in any one of claims 1 to 12 or of the compositions as defined in claim 17.
- 20 20. A method of protecting growing plants from attack or infestation by insects, acarids or nematodes by applying to the foliage of the plants, or to the soil or water in which they are growing, a pesticidally effective amount of compounds of formula I as defined in any one of claims 1 to 12 or of the compositions as defined in claim 17.
- 25 21. A method for treating, controlling, preventing or protecting animals against infestation or infection by parasites which comprises orally, topically or parenterally administering or applying to the animals a parasitically effective amount of compounds of formula I as defined in any one of claims 1 to 12 or of the compositions as defined in claim 17 or their enantiomers or veterinarily acceptable salts.
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