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**Declarations under Rule 4.17:**

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations
- of inventorship (Rule 4.17(iv)) for US only

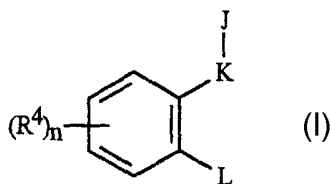
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30 October 2003

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: INSECTICIDAL DIAMIDES



(57) Abstract: This invention pertains to a method for controlling an invertebrate pest comprising contacting the invertebrate pest or its environment with a biologically effective amount of a compound of Formula I including all geometric and stereoisomers, *N*-oxides and agriculturally suitable salts thereof (e.g. in a composition comprising a compound of Formula I) wherein J is a phenyl ring, a naphthyl ring system, a 5- or 6-membered heteroaromatic ring or an aromatic 8-, 9- or 10-membered fused heterobicyclic ring system wherein each ring or ring system is optionally substituted with 1 to 4 R<sub>5</sub>; K is —C(=O)NR<sub>2</sub>— or —NR<sub>2</sub>C(=O)—; L is —NR<sub>2</sub>C(=O)B—R<sub>3</sub> or —NR<sub>1</sub>SO<sub>2</sub>—R<sub>3</sub>; A and B are independently O or S; and R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub>, R<sub>5</sub> and n are

as defined in the disclosure. Also disclosed are certain compositions for controlling an invertebrate pest comprising a biologically effective amount of a compound of Formula I, an *N*-oxide thereof or an agriculturally suitable salt thereof. Also disclosed are certain compounds of Formula I, *N*-oxides and agriculturally suitable salts thereof.



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INTERNATIONAL SEARCH REPORT

International Application No  
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A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 C07D231/14 C07D231/40 C07D213/61 C07D213/40 A01N43/56  
A01N37/22 A01N37/30

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED  
Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 C07D A01N C07C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)  
CHEM ABS Data, EPO-Internal, INSPEC, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim-No.
X	CH 373 028 A (GEIGY AG J R) 15 November 1963 (1963-11-15) page 4, left-hand column, line 1-11; examples page 4, right-hand column, line 80 - line 89 page 4, left-hand column, line 30 - line 38	1,2,4-18
X	--- US 3 907 892 A (O'DOHERTY GEORGE O P) 23 September 1975 (1975-09-23) cited in the application column 8, line 56 - line 65; claim 1 column 16, line 19 - line 59 --- -/--	1,3-18

Further documents are listed in the continuation of box C.  Patent family members are listed in annex.

° Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier document but published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search <b>7 January 2003</b>	Date of mailing of the international search report <b>25. 06. 2003</b>
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Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer <b>DE JONG B.S.</b>
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## INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 02/29468

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3 989 840 A (O'DOHERTY GEORGE OLIVER PLUNKE) 2 November 1976 (1976-11-02) column 8, line 12 - line 31; claim 1; example 4	1,3-18
X	EL-HASHASH, M. A. ET AL: "Synthesis of new sulfamoyl anilides. 4H-3,1-benzoxazin-4-one and 4-quinazolone derivatives of agricultural interest" REV. ROUM. CHIM. (1979), 24(11-12), 1509-20, XP001128751 compound 7a	1,3-18
X	FR 1 491 502 A (SUMITOMO CHEMICAL CO) 11 August 1967 (1967-08-11) page 7, right-hand column, line 5-12; claim 1	9
X	DE 15 93 975 A (SUMITOMO CHEMICAL CO) 9 March 1972 (1972-03-09) claim 1; examples 6-10	9
X	JP 63 010777 A (HOKURIKU SEIYAKU CO LTD) 18 January 1988 (1988-01-18) claims; table 2	9
X	DE 11 69 918 B (MONSANTO CHEMICALS) 14 May 1964 (1964-05-14) claim 1; example 5	9
X	US 4 004 029 A (COLLINS ROBERT JAMES ET AL) 18 January 1977 (1977-01-18) claim 1; example 3	9
A	NL 9 202 078 A (RIJKSLANDBOUWHOGESCHOOL) 16 June 1994 (1994-06-16) cited in the application claims	1,2,4-18
A	WO 92 06964 A (ICI PLC) 30 April 1992 (1992-04-30) claims	1,2,4-18

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US 02/29468

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
  
3.  Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1.  As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
  
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
  
3.  As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
  
4.  No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1,2,4-18 (all in part)

### Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
- No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1,2,4-18 (all in part)

A method for controlling an invertebrate pest using compounds of formula I in which K is  $-C(=A)NR_2-$  and L is  $-NR_1C(=B)-R_3$ . Compounds according to claim 9 in which K and L are as defined above and compositions containing them.

2. Claims: 1,2,4-18 (all in part)

A method for controlling an invertebrate pest using compounds of formula I in which K is  $-C(=A)NR_2-$  and L is  $-NR_1SO_2-R_3$ . Compounds according to claim 9 in which K and L are as defined above and compositions containing them.

3. Claims: 1,3-18 (all in part)

A method for controlling an invertebrate pest using compounds of formula I in which K is  $-NR_2C(=A)-$  and L is  $-NR_1C(=B)-R_3$ . Compounds according to claim 9 in which K and L are as defined above and compositions containing them.

4. Claims: 1,3-18 (all in part)

A method for controlling an invertebrate pest using compounds of formula I in which K is  $-NR_2C(=A)-$  and L is  $-NR_1SO_2-R_3$ . Compounds according to claim 9 in which K and L are as defined above and compositions containing them.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 02/29468

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