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(54) Titre : **MEDICAMENTS CONTENANT DES COMPOSES DE PIPERAZINE N, N'-DISUBSTITUES**
(54) Title: **PHARMACEUTICAL CONTAINING N, N'-DISUBSTITUTED PIPERAZINE COMPOUNDS**

(57) **Abrégé/Abstract:**

The invention relates to a pharmaceutical containing N,N'-disubstituted piperazine compounds and to the use of said compounds for producing a pharmaceutical.



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Abstract

The invention relates to a pharmaceutical containing N,N'-disubstituted piperazine compounds and to the use of said compounds for producing a pharmaceutical.

WO 03/051369

PCT/EP02/13911

MEDICAMENTS COMPRISING N,N'-DISUBSTITUTED PIPERAZINE
COMPOUNDS AND THEIR USE

The present invention relates to medicaments comprising
5 N,N'-disubstituted piperazine compounds and to the use of
these compounds for the preparation of a medicament.

Treatment of pain is of great importance in medicine.
There is a worldwide need for active pain therapies. The
10 urgent need for action for target-orientated treatment of
chronic and non-chronic states of pain appropriate for the
patient, by which is to be understood successful and
satisfactory pain treatment for the patient, is documented
in the large number of scientific works which have recently
15 been published in the field of applied analgesia and
fundamental research on nociception. Treatment of epilepsy
is also of great importance in medicine.

The cyclic GABA analogue gabapentin is a clinically tested
20 antiepileptic having an anticonvulsive action. Gabapentin
moreover shows further interesting and medically relevant
properties, in particular as an analgesic. Gabapentin is
also prescribed for migraine and bipolar disorders as well
as hot flushes (e.g. in the postmenopause) by doctors
25 performing treatment (M. Schrope, Modern Drug Discovery,
September 2000, p. 11). Other indications in which
gabapentin shows a therapeutic potential have been
identified during human studies and in clinical use (J.S.
Bryans, D.J. Wustrow; "3-Substituted GABA Analogs with
30 Central Nervous System Activity: A Review" in Med. Res.
Rev. (1999), p. 149-177). The action of gabapentin is
listed in detail in this review article. Thus, gabapentin
is active in the treatment of chronic pain and behavioural

WO 03/051369

PCT/EP02/13911

2

disturbances. There are listed in particular:
anticonvulsives and antiepileptic actions, use against
chronic, neuropathic pain, in particular thermal
hyperalgesia, mechanical allodynia and cold allodynia. It
5 furthermore acts successfully against neuropathy caused by
nerve damage, in particular precisely neuropathic pain, and
also inflammatory and postoperative pain. Gabapentin is
also successful with antipsychotic effects, in particular
as an anxiolytic. Further indications which have been
10 investigated include: amyotrophic lateral sclerosis (ALS),
reflex sympathetic dystrophy (RSD), spastic paralysis,
restless leg syndrome, treatment of symptoms and pain
caused by multiple sclerosis, acquired nystagmus and
treatment of the symptoms of Parkinson's disease, of
15 painful diabetic neuropathy and of psychiatric disorders,
e.g. bipolar disorders, mood swings and manic behaviour.
The use of gabapentin was also successful on
erythromelalgic pain, postpoliomyelitis pain, trigeminal
neuralgia and postherpetic neuralgia (Bryans and Wustrow
20 (1999), loc. cit.). The general activity in
neurodegenerative diseases is generally known and can also
be seen from the review article mentioned, with the aid of
the examples. Such neurodegenerative diseases are e.g.
Alzheimer's disease, Huntington's disease, Parkinson's
25 disease and epilepsy. The activity of gabapentin on
gastrointestinal damage is also known.

The object of the invention was therefore to provide new
medicaments which correspond to gabapentin in their action
30 and preferably have an analgesic and/or antiepileptic
action.

WO 03/051369

PCT/EP02/13911

3

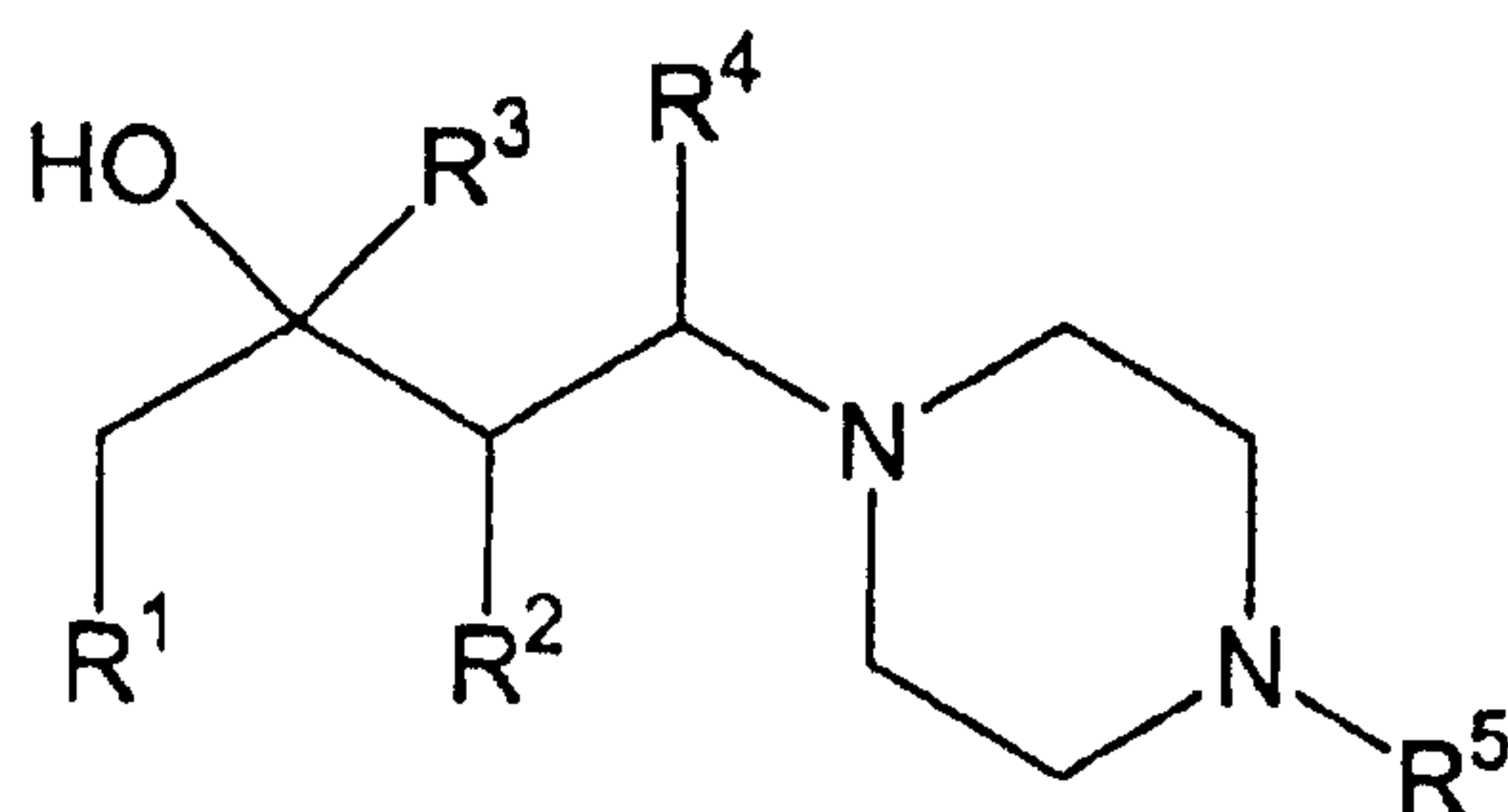
According to the invention, this object is achieved by providing the medicaments comprising N,N'-disubstituted piperazine compounds of the formula I given below, since these medicaments in particular have a pronounced analgesic action and a pronounced action against epilepsy and can be employed for treatment of pain, in particular neuropathic, chronic and/or acute pain, for treatment of symptoms associated in particular with neuropathic pain, and/or other related indications, for treatment of migraine, hyperalgesia and/or allodynia, in particular thermal hyperalgesia, mechanical hyperalgesia, mechanical allodynia and/or cold allodynia, for treatment of inflammatory and/or postoperative pain, for treatment of neurodegenerative diseases, such as Alzheimer's disease, Huntington's disease, Parkinson's disease and/or epilepsy, for treatment of psychiatric and/or neuropathological disorders, such as bipolar disorders, anxiety, panic attacks, mood swings, manic behaviour, depressions and manic-depressive behaviour, for treatment of hot flushes, symptoms in the postmenopause, amyotrophic lateral sclerosis (ALS), reflex sympathetic dystrophy (RSD), spastic paralysis, restless leg syndrome, acquired nystagmus and painful diabetic neuropathy, for treatment of symptoms and/or pain caused by multiple sclerosis and/or Parkinson's disease, and for treatment of gastrointestinal damage, erythromelalgic and/or postpoliomyelitic pain and trigeminal and/or postherpetic neuralgia.

The present invention therefore provides medicaments comprising at least one N,N'-disubstituted piperazine compound of the general formula I

WO 03/051369

PCT/EP02/13911

4



wherein

R^1 and R^2 are identical or different and in each case represent a linear or branched, saturated or unsaturated aliphatic radical, or together form a $(CH_2)_n$ chain, wherein n represents an integer,

R^3 and R^5 are identical or different and in each case represent a linear or branched, saturated or unsaturated aliphatic radical, a saturated or unsaturated cycloaliphatic radical, an aryl radical or a heteroaryl radical, wherein the particular ring system optionally can be mono- or polysubstituted and/or can be bonded via a linear or branched, saturated or unsaturated aliphatic bridge and/or the aryl or heteroaryl radical can be part of a polycyclic system,

R^4 represents hydrogen or an optionally mono- or polysubstituted aryl or heteroaryl radical, wherein the aryl or heteroaryl radical can be part of a polycyclic system,

in the form of its diastereomers, its enantiomers and mixtures thereof - including its racemates - and in the form of corresponding bases, salts and solvates, as the active compound

WO 03/051369

PCT/EP02/13911

5

and optionally physiologically acceptable auxiliary substances.

Medicaments comprising at least one compound of the general
5 formula I wherein

R^1 and R^2 are identical or different and in each case represent a linear or branched, saturated or unsaturated aliphatic C_{1-6} radical or together form a $(CH_2)_n$ chain,
10 wherein n represents an integer from 2 to 9.

R^3 represents a linear or branched, saturated or unsaturated aliphatic C_{1-6} radical, a saturated or unsaturated cycloaliphatic C_{3-7} radical, a phenyl radical or
15 a five- or six-membered heteroaryl radical, wherein the particular ring system optionally can be mono- or polysubstituted and/or can be bonded via a linear or branched, saturated or unsaturated aliphatic C_{1-5} bridge,

20 R_4 represents hydrogen or a phenyl radical,

R^5 represents a linear or branched, saturated or unsaturated aliphatic C_{1-6} radical or an optionally substituted phenyl radical,
25

are preferred.

Medicaments comprising at least one compound of the general
30 formula I wherein

R^1 and R^2 are identical or different and in each case represent a linear or branched, saturated or unsaturated

WO 03/051369

PCT/EP02/13911

6

aliphatic C₁₋₃ radical or together form a (CH₂)_n chain,
wherein n represents an integer from 2 to 9,

R³ represents a linear or branched, saturated or
5 unsaturated aliphatic C₁₋₃ radical, a saturated or
unsaturated cycloaliphatic C₅₋₆ radical, a phenyl radical or
a five- or six-membered heteroaryl radical, wherein the
particular ring system optionally can be mono- or
polysubstituted by halogen, an alkyl group, an alkoxy group
10 and/or a trihalogenated alkyl group and/or can be bonded
via a linear or branched, saturated or unsaturated
aliphatic C₁₋₃ bridge,

R⁴ represents hydrogen or a phenyl radical,
15

R⁵ represents a linear or branched, saturated or
unsaturated aliphatic C₁₋₃ radical or a phenyl radical which
is optionally substituted by halogen or an alkoxy group,
20 are furthermore preferred.

Medicaments comprising at least one compound of the general
formula 1 wherein

25 R¹ and R² in each case represent a methyl group or together
form a (CH₂)_n chain, wherein n represents 3, 4, 5 or 9,

R³ represents a vinyl radical, a cyclopentyl radical, a
cyclohexyl radical, a thiophenyl radical or a phenyl
30 radical, wherein the cyclohexyl radical optionally can be
bonded via a methylene bridge or the phenyl radical
optionally can be mono- or polysubstituted by fluorine,

WO 03/051369

PCT/EP02/13911

7

chlorine, a methyl group, an isopropyl group, a methoxy group and/or a trifluoromethyl group and/or optionally can be bonded via a linear, saturated aliphatic C₁₋₃ bridge or an ethynyl bridge,

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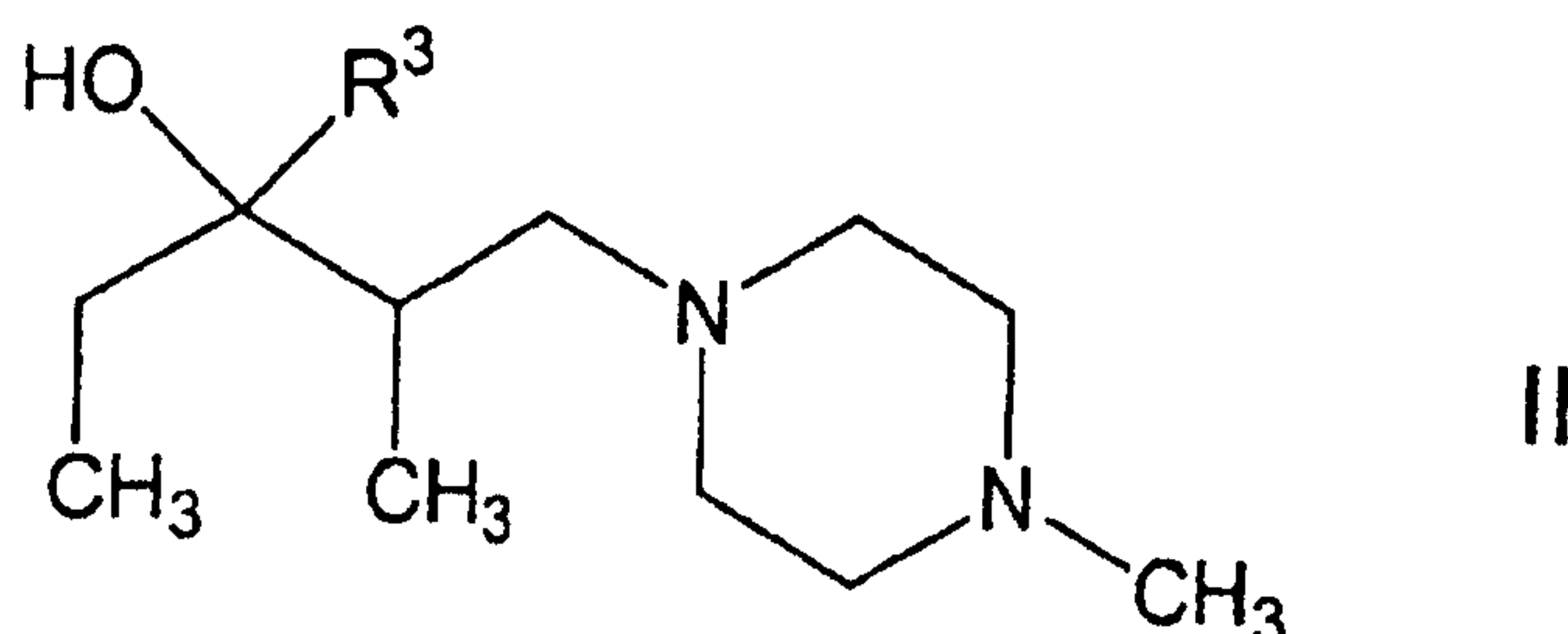
R⁴ represents hydrogen or a phenyl radical,

R⁵ represents a methyl group or a phenyl radical which is optionally substituted by chlorine or a methoxy group

10

are furthermore preferred.

Medicaments comprising at least one compound of the general formula II



15

wherein

R³ represents a linear or branched, saturated or unsaturated aliphatic radical, a saturated or unsaturated cycloaliphatic radical, an aryl radical or a heteroaryl radical, wherein the particular ring system optionally can be mono- or polysubstituted and/or can be bonded via a linear or branched, saturated or unsaturated aliphatic bridge and/or the aryl or heteroaryl radical can be part of a polycyclic system,

25

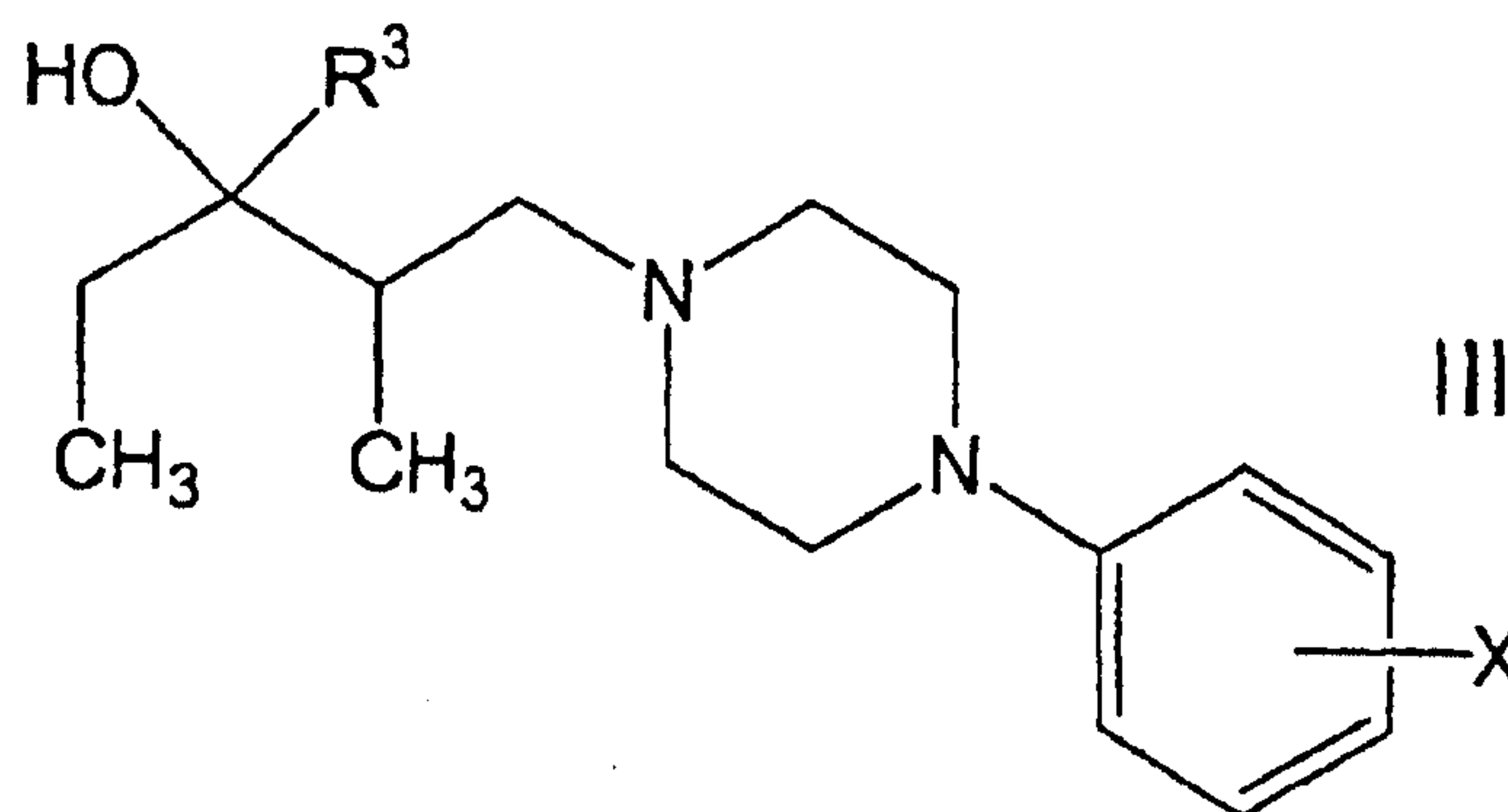
are particularly preferred.

WO 03/051369

PCT/EP02/13911

8

Medicaments comprising at least one compound of the general formula III



wherein

- 5 X represents hydrogen, halogen or an alkoxy group, preferably hydrogen, chlorine or a methoxy group, and

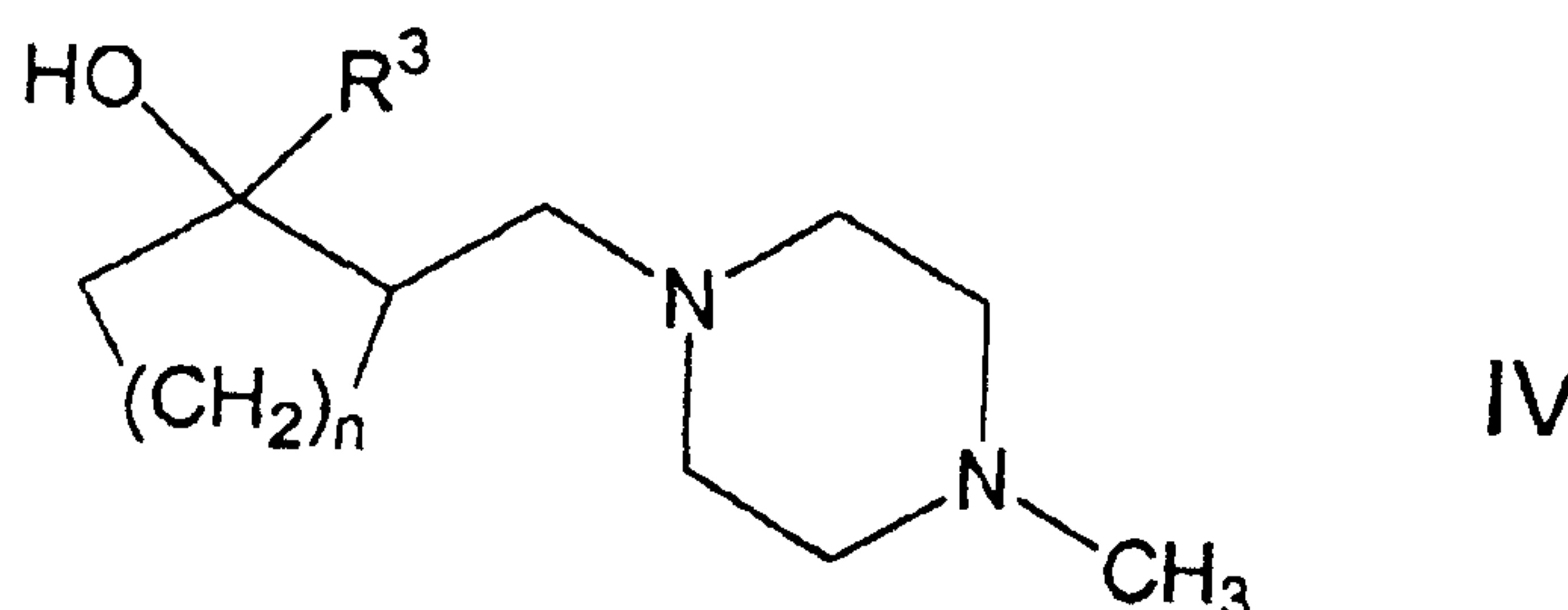
R³ represents a linear or branched, saturated or unsaturated aliphatic radical, a saturated or unsaturated cycloaliphatic radical, an aryl radical or a heteroaryl radical, wherein the particular ring system optionally can be mono- or polysubstituted and/or can be bonded via a linear or branched, saturated or unsaturated aliphatic bridge and/or the aryl or heteroaryl radical can be part of

15 a polycyclic system,

are particularly preferred.

Medicaments comprising at least one compound of the general

20 formula IV



WO 03/051369

PCT/EP02/13911

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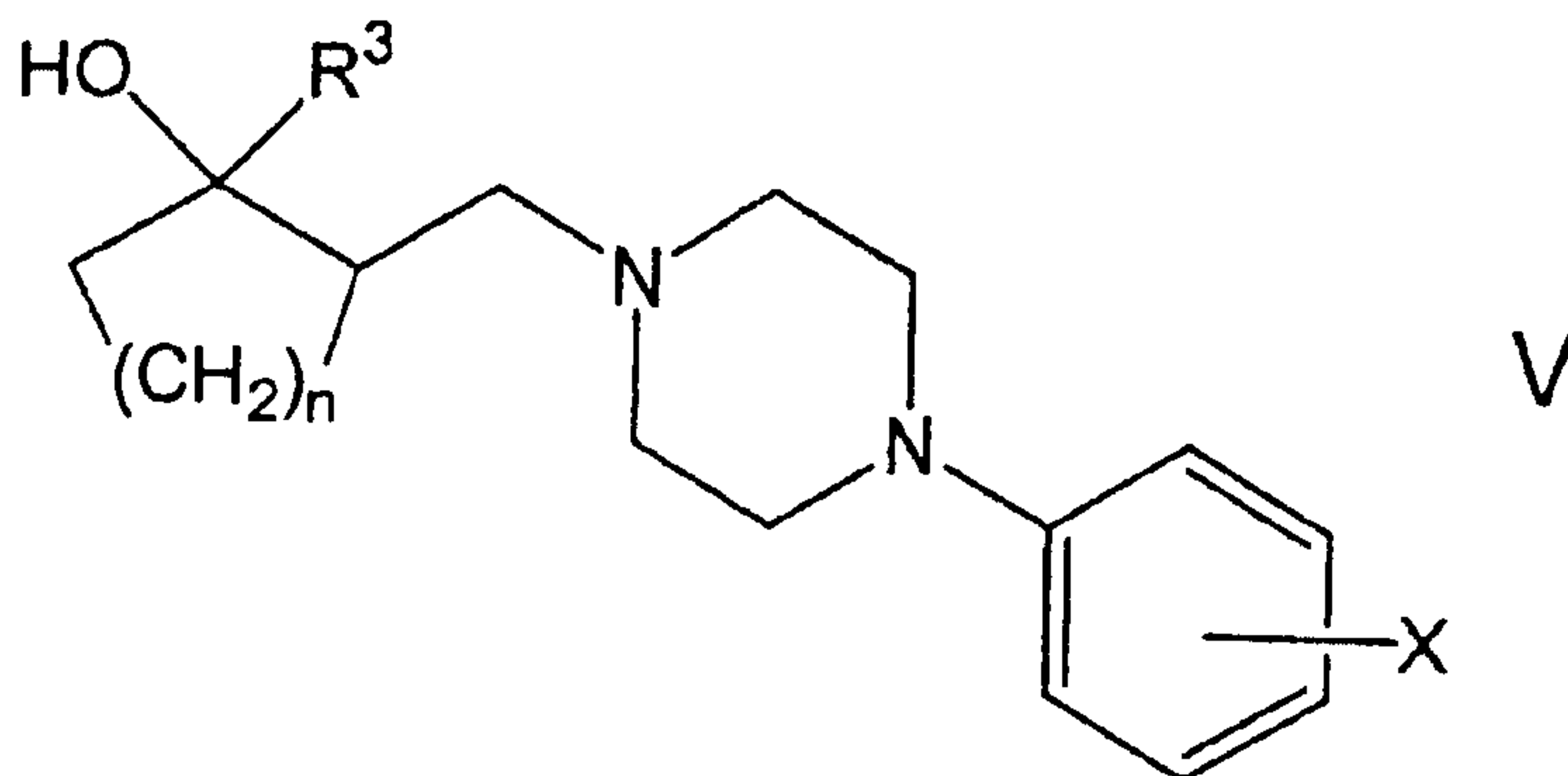
wherein

n represents an integer from 2 to 9 and

R³ represents a linear or branched, saturated or
 5 unsaturated aliphatic radical, a saturated or unsaturated
 cycloaliphatic radical, an aryl radical or a heteroaryl
 radical, wherein the particular ring system optionally can
 be mono- or polysubstituted and/or can be bonded via a
 linear or branched, saturated or unsaturated aliphatic
 10 bridge and/or the aryl or heteroaryl radical can be part of
 a polycyclic system,

are particularly preferred.

15 Medicaments comprising at least one compound of the general
 formula V



wherein

n represents an integer from 2 to 9,

20

X represents hydrogen, halogen or an alkoxy group,
 preferably hydrogen, chlorine or a methoxy group, and

R³ represents a linear or branched, saturated or
 25 unsaturated aliphatic radical, a saturated or unsaturated
 cycloaliphatic radical, an aryl radical or a heteroaryl

WO 03/051369

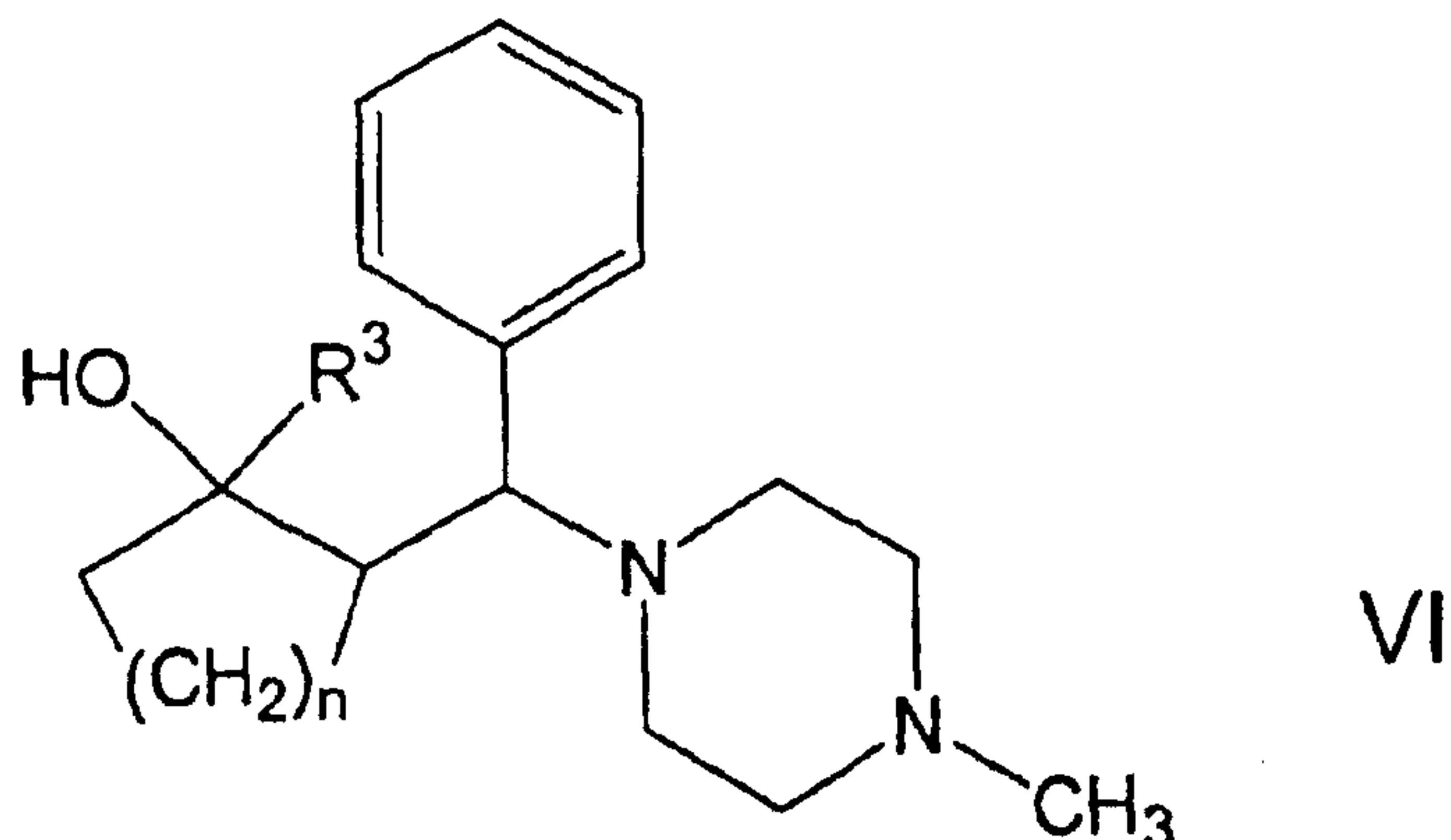
PCT/EP02/13911

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radical, wherein the particular ring system optionally can be mono- or polysubstituted and/or can be bonded via a linear or branched, saturated or unsaturated aliphatic bridge and/or the aryl or heteroaryl radical can be part of
5 a polycyclic system,

are particularly preferred.

Medicaments comprising at least one compound of the general
10 formula VI



wherein

n represents an integer from 2 to 9 and

15 R³ represents a linear or branched, saturated or unsaturated aliphatic radical, a saturated or unsaturated cycloaliphatic radical, an aryl radical or a heteroaryl radical, wherein the particular ring system optionally can be mono- or polysubstituted and/or can be bonded via a
20 linear or branched, saturated or unsaturated aliphatic bridge and/or the aryl or heteroaryl radical can be part of a polycyclic system,

are particularly preferred.

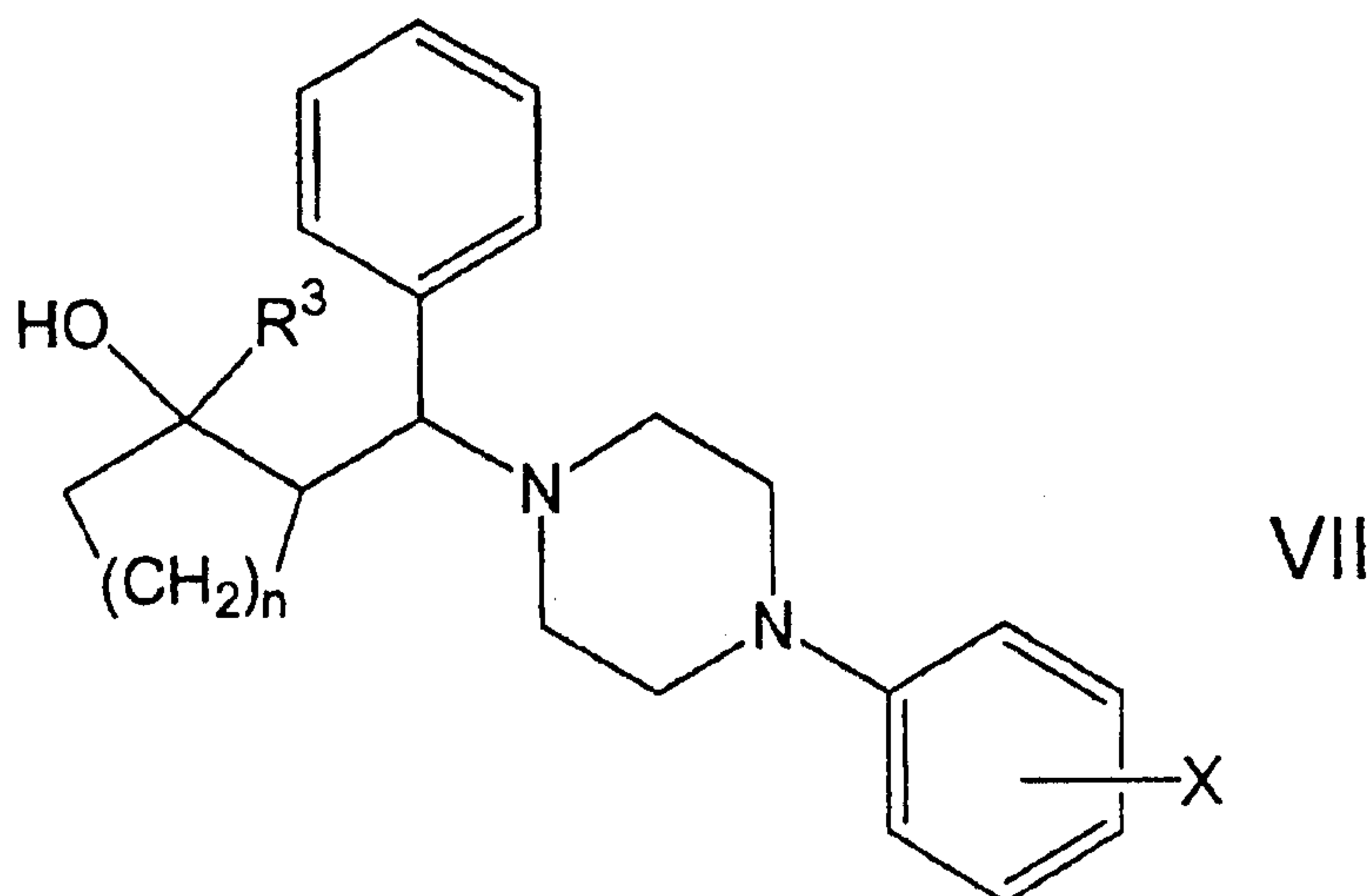
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WO 03/051369

PCT/EP02/13911

11

Medicaments comprising at least one compound of the general formula VII



wherein

5 n represents an integer from 2 to 9,

X represents hydrogen, halogen or an alkoxy group, preferably hydrogen, chlorine or a methoxy group, and

10 R³ represents a linear or branched, saturated or unsaturated aliphatic radical, a saturated or unsaturated cycloaliphatic radical, an aryl radical or a heteroaryl radical, wherein the particular ring system optionally can be mono- or polysubstituted and/or can be bonded via a
 15 linear or branched, saturated or unsaturated aliphatic bridge and/or the aryl or heteroaryl radical can be part of a polycyclic system,

are particularly preferred.

20

Medicaments comprising at least one compound of the general formula II-VII wherein

WO 03/051369

PCT/EP02/13911

12

R³ represents a linear or branched, saturated or unsaturated aliphatic C₁₋₆ radical, a saturated or unsaturated cycloaliphatic C₃₋₇ radical, a phenyl radical or a five- or six-membered heteroaryl radical, wherein the particular ring system optionally can be mono- or polysubstituted and/or can be bonded via a linear or branched, saturated or unsaturated aliphatic C₁₋₅ bridge

and the other symbols have the abovementioned meaning, are furthermore preferred.

Medicaments comprising at least one compound of the general formula II-VII wherein

R³ represents a linear or branched, saturated or unsaturated aliphatic C₁₋₃ radical, a saturated or unsaturated cycloaliphatic C₅₋₆ radical, a phenyl radical or a five- or six-membered heteroaryl radical, wherein the particular ring system optionally can be mono- or polysubstituted by halogen, an alkyl group, an alkoxy group and/or a trihalogenated alkyl group and/or can be bonded via a linear or branched, saturated or unsaturated aliphatic C₁₋₃ bridge,

and the other symbols have the abovementioned meaning are furthermore preferred.

Medicaments comprising at least one compound of the general formula II-VII wherein

WO 03/051369

PCT/EP02/13911

13

R³ represents a vinyl radical, a cyclopentyl radical, a cyclohexyl radical, a thiophenyl radical or a phenyl radical, wherein the cyclohexyl radical optionally can be bonded via a methylene bridge or the phenyl radical optionally can be mono- or polysubstituted by fluorine, chlorine, a methyl group, an isopropyl group, a methoxy group and/or a trifluoromethyl group and/or optionally can be bonded via a linear, saturated aliphatic C₁₋₃ bridge or an ethynyl bridge,

10

and the other symbols have the abovementioned meaning, are furthermore preferred.

15 A heteroaryl radical is understood as meaning an optionally mono- or polysubstituted, five- or six-membered aromatic radical, which can be part of a polycyclic system, having at least one, optionally 2, 3, 4 or 5 heteroatoms, which can be identical or different. Preferred heteroatoms are
20 nitrogen, oxygen and sulfur. Heteroaryl radicals chosen from the group comprising the pyrrolyl, indolyl, furyl, (furanyl), benzofuranyl, thienyl (thiophenyl), benzothienyl, pyrazolyl, imidazolyl, thiazolyl, oxazolyl, isoxazolyl, pyridinyl, pyridazinyl, pyrimidinyl, pyrazinyl,
25 pyranyl, indazolyl, purinyl, indolizinyl, quinolinyl, isoquinolinyl, quinazolinyl, carbazolyl, phenazinyl and phenothiazinyl radical are particularly preferred. Bonding can be via any desired ring atom which is capable of bonding. The substituents optionally present can be
30 identical or different and bonded to any desired ring atom which is capable of bonding.

WO 03/051369

PCT/EP02/13911

14

An aryl radical is understood as meaning an optionally mono- or polysubstituted, aromatic radical, which can be part of a polycyclic system. A phenyl radical is particularly preferred. Bonding can be via any desired
 5 ring atom which is capable of bonding. The substituents optionally present can be identical or different and bonded to any desired ring atom which is capable of bonding.

Medicaments which are very particularly preferred are those
 10 comprising at least one compound chosen from the group comprising

2-methyl-1-(4-methyl-piperazin-1-yl)-3-phenyl-pentan-3-ol
 3-(4-chloro-phenyl)-2-methyl-1-(4-methyl-piperazin-1-yl)-
 15 pentan-3-ol
 3-benzyl-2-methyl-1-(4-methyl-piperazin-1-yl)-pentan-3-ol
 3-(4-fluoro-3-methyl-phenyl)-2-methyl-1-(4-methyl-piperazin-1-yl)-pentan-3-ol
 2-methyl-1-(4-methyl-piperazin-1-yl)-3-o-tolyl-pentan-3-ol
 20 3-ethyl-4-methyl-5-(4-methyl-piperazin-1-yl)-pent-1-en-3-ol
 3-(4-tert-butyl-phenyl)-2-methyl-1-(4-methyl-piperazin-1-yl)-pentan-3-ol
 3-cyclopentyl-2-methyl-1-(4-methyl-piperazin-1-yl)-pentan-3-ol
 25 2-methyl-1-(4-methyl-piperazin-1-yl)-3-m-tolyl-pentan-3-ol
 3-cyclohexyl-2-methyl-1-(4-methyl-piperazin-1-yl)-pentan-3-ol
 3-(4-fluoro-phenyl)-2-methyl-1-(4-methyl-piperazin-1-yl)-pentan-3-ol
 30 3-ethyl-2-methyl-1-(4-methyl-piperazin-1-yl)-5-phenyl-pentan-3-ol

WO 03/051369

PCT/EP02/13911

15

3-ethyl-4-methyl-5-(4-methyl-piperazin-1-yl)-1-phenyl-pent-
1-yn-3-ol

2-methyl-1-(4-methyl-piperazin-1-yl)-3-thiophen-2-yl-
pentan-3-ol

5 3-(3-methoxy-phenyl)-2-methyl-1-(4-methyl-piperazin-1-yl)-
pentan-3-ol

3-ethyl-2-methyl-1-(4-methyl-piperazin-1-yl)-6-phenyl-
hexan-3-ol

2-methyl-1-(4-methyl-piperazin-1-yl)-3-p-tolyl-pentan-3-ol

10 3-(4-methoxy-phenyl)-2-methyl-1-(4-methyl-piperazin-1-yl)-
pentan-3-ol

2-(4-methyl-piperazin-1-ylmethyl)-1-phenyl-cyclohexanol

1-benzyl-2-(4-methyl-piperazin-1-ylmethyl)-cyclohexanol

1-(4-fluoro-3-methyl-phenyl)-2-(4-methyl-piperazin-1-

15 ylmethyl)-cyclohexanol

2-(4-methyl-piperazin-1-ylmethyl)-1-o-tolyl-cyclohexanol

2-(4-methyl-piperazin-1-ylmethyl)-1-vinyl-cyclohexanol

1-cyclopentyl-2-(4-methyl-piperazin-1-ylmethyl)-
cyclohexanol

20 2-(4-methyl-piperazin-1-ylmethyl)-1-m-tolyl-cyclohexanol

2-(4-methyl-piperazin-1-ylmethyl)-bicyclohexyl-1-ol

1-(4-fluoro-phenyl)-2-(4-methyl-piperazin-1-ylmethyl)-
cyclohexanol

2-(4-methyl-piperazin-1-ylmethyl)-1-phenethyl-cyclohexanol

25 2-(4-methyl-piperazin-1-ylmethyl)-1-thiophen-2-yl-
cyclohexanol

1-(2,4-dichloro-phenyl)-2-(4-methyl-piperazin-1-ylmethyl)-
cyclohexanol

1-(3-methoxy-phenyl)-2-(4-methyl-piperazin-1-ylmethyl)-

30 cyclohexanol

2-(4-methyl-piperazin-1-ylmethyl)-1-(3-phenyl-propyl)-
cyclohexanol

WO 03/051369

PCT/EP02/13911

16

- 2-(4-methyl-piperazin-1-ylmethyl)-1-p-tolyl-cyclohexanol
1-(4-methoxy-phenyl)-2-(4-methyl-piperazin-1-ylmethyl)-
cyclohexanol
1-benzyl-2-(4-methyl-piperazin-1-ylmethyl)-cyclooctanol
5 2-(4-methyl-piperazin-1-ylmethyl)-1-vinyl-cyclooctanol
1-(4-tert-butyl-phenyl)-2-(4-methyl-piperazin-1-ylmethyl)-
cyclooctanol
1-cyclopentyl-2-(4-methyl-piperazin-1-ylmethyl)-
cyclooctanol
10 2-(4-methyl-piperazin-1-ylmethyl)-1-phenethyl-cyclooctanol
2-(4-methyl-piperazin-1-ylmethyl)-1-phenylethynyl-
cyclooctanol
2-(4-methyl-piperazin-1-ylmethyl)-1-thiophen-2-yl-
cyclooctanol
15 1-(3-methoxy-phenyl)-2-(4-methyl-piperazin-1-ylmethyl)-
cyclooctanol
2-(4-methyl-piperazin-1-ylmethyl)-1-(3-phenyl-propyl)-
cyclooctanol
2-(4-methyl-piperazin-1-ylmethyl)-1-p-tolyl-cyclooctanol
20 1-(4-methoxy-phenyl)-2-(4-methyl-piperazin-1-ylmethyl)-
cyclooctanol
2-(4-methyl-piperazin-1-ylmethyl)-1-phenyl-cycloheptanol
1-(4-chloro-phenyl)-2-(4-methyl-piperazin-1-ylmethyl)-
cycloheptanol
25 1-benzyl-2-(4-methyl-piperazin-1-ylmethyl)-cycloheptanol
1-(4-fluoro-3-methyl-phenyl)-2-(4-methyl-piperazin-1-
ylmethyl)-cycloheptanol
2-(4-methyl-piperazin-1-ylmethyl)-1-o-tolyl-cycloheptanol
2-(4-methyl-piperazin-1-ylmethyl)-1-vinyl-cycloheptanol
30 1-(4-tert-butyl-phenyl)-2-(4-methyl-piperazin-1-ylmethyl)-
cycloheptanol

WO 03/051369

PCT/EP02/13911

17

- 1-cyclopentyl-2-(4-methyl-piperazin-1-ylmethyl)-
cycloheptanol
- 2-(4-methyl-piperazin-1-ylmethyl)-1-m-tolyl-cycloheptanol
- 1-[4-(3-chloro-phenyl)-piperazin-1-yl]-2-methyl-3-phenyl-
- 5 pentan-3-ol
- 3-(4-chloro-phenyl)-1-[4-(3-chloro-phenyl)-piperazin-1-yl]-
2-methyl-pentan-3-ol
- 3-benzyl-1-[4-(3-chloro-phenyl)-piperazin-1-yl]-2-methyl-
pentan-3-ol
- 10 1-[4-(3-chloro-phenyl)-piperazin-1-yl]-3-(4-fluoro-3-
methyl-phenyl)-2-methyl-pentan-3-ol
- 5-[4-(3-chloro-phenyl)-piperazin-1-yl]-3-ethyl-4-methyl-
pent-1-en-3-ol
- 3-(4-tert-butyl-phenyl)-1-[4-(3-chloro-phenyl)-piperazin-1-
15 yl]-2-methyl-pentan-3-ol
- 1-[4-(3-chloro-phenyl)-piperazin-1-yl]-2-methyl-3-m-tolyl-
pentan-3-ol
- 1-[4-(3-chloro-phenyl)-piperazin-1-yl]-3-cyclohexyl-2-
methyl-pentan-3-ol
- 20 1-[4-(3-chloro-phenyl)-piperazin-1-yl]-3-(4-fluoro-phenyl)-
2-methyl-pentan-3-ol
- 1-[4-(3-chloro-phenyl)-piperazin-1-yl]-3-ethyl-2-methyl-5-
phenyl-pentan-3-ol
- 5-[4-(3-chloro-phenyl)-piperazin-1-yl]-3-ethyl-4-methyl-1-
25 phenyl-pent-1-yn-3-ol
- 1-[4-(3-chloro-phenyl)-piperazin-1-yl]-2-methyl-3-thiophen-
2-yl-pentan-3-ol
- 1-[4-(3-chloro-phenyl)-piperazin-1-yl]-3-(3-methoxy-
phenyl)-2-methyl-pentan-3-ol
- 30 1-[4-(3-chloro-phenyl)-piperazin-1-yl]-3-ethyl-2-methyl-6-
phenyl-hexan-3-ol

WO 03/051369

PCT/EP02/13911

18

- 1- [4- (3-chloro-phenyl) -piperazin-1-yl] -2-methyl-3-p-tolyl-
pentan-3-ol
- 1- [4- (3-chloro-phenyl) -piperazin-1-yl] -3- (4-methoxy-
phenyl) -2-methyl-pentan-3-ol
- 5 1- [4- (3-chloro-phenyl) -piperazin-1-yl] -3- (5-fluoro-2-
methoxy-phenyl) -2-methyl-pentan-3-ol
- 1- [4- (3-chloro-phenyl) -piperazin-1-yl] -3- (3-fluoro-phenyl) -
2-methyl-pentan-3-ol
- 3- (3-chloro-phenyl) -1- [4- (3-chloro-phenyl) -piperazin-1-yl] -
10 2-methyl-pentan-3-ol
- 3- (2-chloro-benzyl) -1- [4- (3-chloro-phenyl) -piperazin-1-yl] -
2-methyl-pentan-3-ol
- 1- [4- (3-chloro-phenyl) -piperazin-1-yl] -3- (4-fluoro-benzyl) -
2-methyl-pentan-3-ol
- 15 1- [4- (3-chloro-phenyl) -piperazin-1-yl] -3- (3-methoxy-
benzyl) -2-methyl-pentan-3-ol
- 1- [4- (3-chloro-phenyl) -piperazin-1-yl] -3- (3-fluoro-benzyl) -
2-methyl-pentan-3-ol
- 1- [4- (3-chloro-phenyl) -piperazin-1-yl] -3- (2-methoxy-
20 phenyl) -2-methyl-pentan-3-ol
- 1- [4- (3-chloro-phenyl) -piperazin-1-yl] -2-methyl-3- (2-
methyl-benzyl) -pentan-3-ol
- 1- [4- (3-chloro-phenyl) -piperazin-1-yl] -2-methyl-3- (3-
trifluoromethyl-phenyl) -pentan-3-ol
- 25 1- [4- (3-chloro-phenyl) -piperazin-1-yl] -2-methyl-3- (3-
methyl-benzyl) -pentan-3-ol
- 3- (4-chloro-benzyl) -1- [4- (3-chloro-phenyl) -piperazin-1-yl] -
2-methyl-pentan-3-ol
- 3- (2-chloro-6-fluoro-benzyl) -1- [4- (3-chloro-phenyl) -
30 piperazin-1-yl] -2-methyl-pentan-3-ol
- 1- [4- (3-chloro-phenyl) -piperazin-1-yl] -3- (2,5-dimethyl-
benzyl) -2-methyl-pentan-3-ol

WO 03/051369

PCT/EP02/13911

19

- 3-(3-chloro-benzyl)-1-[4-(3-chloro-phenyl)-piperazin-1-yl]-
2-methyl-pentan-3-ol
- 1-[4-(3-chloro-phenyl)-piperazin-1-yl]-3-(2,4-dichloro-
benzyl)-2-methyl-pentan-3-ol
- 5 3-cyclohexylmethyl-2-methyl-1-(4-methyl-piperazin-1-yl)-
pentan-3-ol
- 3-(5-fluoro-2-methoxy-phenyl)-2-methyl-1-(4-methyl-
piperazin-1-yl)-pentan-3-ol
- 3-(3-fluoro-phenyl)-2-methyl-1-(4-methyl-piperazin-1-yl)-
10 pentan-3-ol
- 3-(3-chloro-phenyl)-2-methyl-1-(4-methyl-piperazin-1-yl)-
pentan-3-ol
- 3-(3,5-dichloro-phenyl)-2-methyl-1-(4-methyl-piperazin-1-
yl)-pentan-3-ol
- 15 3-(2-chloro-benzyl)-2-methyl-1-(4-methyl-piperazin-1-yl)-
pentan-3-ol
- 3-(4-fluoro-benzyl)-2-methyl-1-(4-methyl-piperazin-1-yl)-
pentan-3-ol
- 3-(3-methoxy-benzyl)-2-methyl-1-(4-methyl-piperazin-1-yl)-
20 pentan-3-ol
- 3-(4-chloro-3-trifluoromethyl-phenyl)-2-methyl-1-(4-methyl-
piperazin-1-yl)-pentan-3-ol
- 3-(3-fluoro-benzyl)-2-methyl-1-(4-methyl-piperazin-1-yl)-
pentan-3-ol
- 25 3-(2-methoxy-phenyl)-2-methyl-1-(4-methyl-piperazin-1-yl)-
pentan-3-ol
- 2-methyl-3-(2-methyl-benzyl)-1-(4-methyl-piperazin-1-yl)-
pentan-3-ol
- 3-(3-chloro-4-fluoro-phenyl)-2-methyl-1-(4-methyl-
30 piperazin-1-yl)-pentan-3-ol
- 2-methyl-1-(4-methyl-piperazin-1-yl)-3-(3-trifluoromethyl-
phenyl)-pentan-3-ol

WO 03/051369

PCT/EP02/13911

20

- 2-methyl-3-(3-methyl-benzyl)-1-(4-methyl-piperazin-1-yl)-
pentan-3-ol
- 3-(4-chloro-benzyl)-2-methyl-1-(4-methyl-piperazin-1-yl)-
pentan-3-ol
- 5 3-(2-chloro-6-fluoro-benzyl)-2-methyl-1-(4-methyl-
piperazin-1-yl)-pentan-3-ol
- 3-(2,5-dimethyl-benzyl)-2-methyl-1-(4-methyl-piperazin-1-
yl)-pentan-3-ol
- 3-(3-chloro-benzyl)-2-methyl-1-(4-methyl-piperazin-1-yl)-
10 pentan-3-ol
- 3-(2,4-dichloro-benzyl)-2-methyl-1-(4-methyl-piperazin-1-
yl)-pentan-3-ol
- 1-cyclohexylmethyl-2-(4-methyl-piperazin-1-ylmethyl)-
cyclohexanol
- 15 1-(5-fluoro-2-methoxy-phenyl)-2-(4-methyl-piperazin-1-
ylmethyl)-cyclohexanol
- 1-(3-fluoro-phenyl)-2-(4-methyl-piperazin-1-ylmethyl)-
cyclohexanol
- 1-(3-chloro-phenyl)-2-(4-methyl-piperazin-1-ylmethyl)-
20 cyclohexanol
- 1-(3,5-dichloro-phenyl)-2-(4-methyl-piperazin-1-ylmethyl)-
cyclohexanol
- 1-(2-chloro-benzyl)-2-(4-methyl-piperazin-1-ylmethyl)-
cyclohexanol
- 25 1-(4-fluoro-benzyl)-2-(4-methyl-piperazin-1-ylmethyl)-
cyclohexanol
- 1-(3-methoxy-benzyl)-2-(4-methyl-piperazin-1-ylmethyl)-
cyclohexanol
- 1-(4-chloro-3-trifluoromethyl-phenyl)-2-(4-methyl-
30 piperazin-1-ylmethyl)-cyclohexanol
- 1-(3-fluoro-benzyl)-2-(4-methyl-piperazin-1-ylmethyl)-
cyclohexanol

WO 03/051369

PCT/EP02/13911

21

- 1- (2-methoxy-phenyl) -2- (4-methyl-piperazin-1-ylmethyl) -
cyclohexanol
- 1- (2-methyl-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -
cyclohexanol
- 5 1- (3-chloro-4-fluoro-phenyl) -2- (4-methyl-piperazin-1-
ylmethyl) -cyclohexanol
- 2- (4-methyl-piperazin-1-ylmethyl) -1- (3-trifluoromethyl-
phenyl) -cyclohexanol
- 1- (3-methyl-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -
10 cyclohexanol
- 1- (4-chloro-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -
cyclohexanol
- 1- (2,5-dimethyl-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -
cyclohexanol
- 15 1- (3-chloro-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -
cyclohexanol
- 1- (2,4-dichloro-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -
cyclohexanol
- 1-cyclohexylmethyl-2- (4-methyl-piperazin-1-ylmethyl) -
20 cyclooctanol
- 1- (5-fluoro-2-methoxy-phenyl) -2- (4-methyl-piperazin-1-
ylmethyl) -cyclooctanol
- 1- (2-chloro-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -
cyclooctanol
- 25 1- (4-fluoro-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -
cyclooctanol
- 1- (3-fluoro-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -
cyclooctanol
- 1- (2-methoxy-phenyl) -2- (4-methyl-piperazin-1-ylmethyl) -
30 cyclooctanol
- 1- (3-methyl-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -
cyclooctanol

WO 03/051369

PCT/EP02/13911

22

- 1- (4-chloro-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -
cyclooctanol
- 1- (2-chloro-6-fluoro-benzyl) -2- (4-methyl-piperazin-1-
ylmethyl) -cyclooctanol
- 5 1- (2,5-dimethyl-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -
cyclooctanol
- 1- (3-chloro-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -
cyclooctanol
- 1- (2,4-dichloro-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -
10 cyclooctanol
- 1-cyclohexylmethyl-2- (4-methyl-piperazin-1-ylmethyl) -
cycloheptanol
- 1- (5-fluoro-2-methoxy-phenyl) -2- (4-methyl-piperazin-1-
ylmethyl) -cycloheptanol
- 15 1- (3-fluoro-phenyl) -2- (4-methyl-piperazin-1-ylmethyl) -
cycloheptanol
- 1- (3-chloro-phenyl) -2- (4-methyl-piperazin-1-ylmethyl) -
cycloheptanol
- 1- (3,5-dichloro-phenyl) -2- (4-methyl-piperazin-1-ylmethyl) -
20 cycloheptanol
- 1- (2-chloro-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -
cycloheptanol
- 1- (4-fluoro-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -
cycloheptanol
- 25 1- (3-methoxy-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -
cycloheptanol
- 1- (4-chloro-3-trifluoromethyl-phenyl) -2- (4-methyl-
piperazin-1-ylmethyl) -cycloheptanol
- 1- (3-fluoro-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -
30 cycloheptanol
- 1- (2-methoxy-phenyl) -2- (4-methyl-piperazin-1-ylmethyl) -
cycloheptanol

WO 03/051369

PCT/EP02/13911

23

- 1- (2-methyl-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -
cycloheptanol
- 1- (3-chloro-4-fluoro-phenyl) -2- (4-methyl-piperazin-1-
ylmethyl) -cycloheptanol
- 5 2- (4-methyl-piperazin-1-ylmethyl) -1- (3-trifluoromethyl-
phenyl) -cycloheptanol
- 1- (3-methyl-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -
cycloheptanol
- 1- (4-chloro-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -
10 cycloheptanol
- 1- (2-chloro-6-fluoro-benzyl) -2- (4-methyl-piperazin-1-
ylmethyl) -cycloheptanol
- 1- (2,5-dimethyl-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -
cycloheptanol
- 15 1- (3-chloro-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -
cycloheptanol
- 1- (2,4-dichloro-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -
cycloheptanol
- 1-benzyl-2- (4-methyl-piperazin-1-ylmethyl) -cyclododecanol
- 20 2- (4-methyl-piperazin-1-ylmethyl) -1-vinyl-cyclododecanol
- 1-cyclopentyl-2- (4-methyl-piperazin-1-ylmethyl) -
cyclododecanol
- 2- (4-methyl-piperazin-1-ylmethyl) -1-phenethyl-
cyclododecanol
- 25 2- (4-methyl-piperazin-1-ylmethyl) -1-phenylethynyl-
cyclododecanol
- 2- (4-methyl-piperazin-1-ylmethyl) -1-thiophen-2-yl-
cyclododecanol
- 2- (4-methyl-piperazin-1-ylmethyl) -1- (3-phenyl-propyl) -
30 cyclododecanol
- 1- (5-fluoro-2-methoxy-phenyl) -2- (4-methyl-piperazin-1-
ylmethyl) -cyclododecanol

WO 03/051369

PCT/EP02/13911

24

- 1 - (2-chloro-benzyl) - 2 - (4-methyl-piperazin-1-ylmethyl) -
cyclododecanol
- 1 - (4-fluoro-benzyl) - 2 - (4-methyl-piperazin-1-ylmethyl) -
cyclododecanol
- 5 1 - (3-methoxy-benzyl) - 2 - (4-methyl-piperazin-1-ylmethyl) -
cyclododecanol
- 1 - (3-fluoro-benzyl) - 2 - (4-methyl-piperazin-1-ylmethyl) -
cyclododecanol
- 1 - (2-methoxy-phenyl) - 2 - (4-methyl-piperazin-1-ylmethyl) -
10 cyclododecanol
- 1 - (2-methyl-benzyl) - 2 - (4-methyl-piperazin-1-ylmethyl) -
cyclododecanol
- 1 - (3-methyl-benzyl) - 2 - (4-methyl-piperazin-1-ylmethyl) -
cyclododecanol
- 15 1 - (4-chloro-benzyl) - 2 - (4-methyl-piperazin-1-ylmethyl) -
cyclododecanol
- 1 - (2,5-dimethyl-benzyl) - 2 - (4-methyl-piperazin-1-ylmethyl) -
cyclododecanol
- 1 - (3-chloro-benzyl) - 2 - (4-methyl-piperazin-1-ylmethyl) -
20 cyclododecanol
- 1 - (2,4-dichloro-benzyl) - 2 - (4-methyl-piperazin-1-ylmethyl) -
cyclododecanol
- 2 - [4 - (3-chloro-phenyl) - piperazin-1-ylmethyl] - 1 -
cyclohexylmethyl-cyclohexanol
- 25 2 - [4 - (3-chloro-phenyl) - piperazin-1-ylmethyl] - 1 - (5-fluoro-2-
methoxy-phenyl) - cyclohexanol
- 2 - [4 - (3-chloro-phenyl) - piperazin-1-ylmethyl] - 1 - (3-fluoro-
phenyl) - cyclohexanol
- 1 - (3-chloro-phenyl) - 2 - [4 - (3-chloro-phenyl) - piperazin-1-
30 ylmethyl] - cyclohexanol
- 2 - [4 - (3-chloro-phenyl) - piperazin-1-ylmethyl] - 1 - (3,5-
dichloro-phenyl) - cyclohexanol

WO 03/051369

PCT/EP02/13911

25

- 1 - (2-chloro-benzyl) - 2 - [4 - (3-chloro-phenyl) - piperazin-1-ylmethyl] - cyclohexanol
- 2 - [4 - (3-chloro-phenyl) - piperazin-1-ylmethyl] - 1 - (4-fluoro-benzyl) - cyclohexanol
- 5 2 - [4 - (3-chloro-phenyl) - piperazin-1-ylmethyl] - 1 - (4-chloro-3-trifluoromethylphenyl) - cyclohexanol
- 2 - [4 - (3-chloro-phenyl) - piperazin-1-ylmethyl] - 1 - (3-fluoro-benzyl) - cyclohexanol
- 2 - [4 - (3-chloro-phenyl) - piperazin-1-ylmethyl] - 1 - (2-methoxy-phenyl) - cyclohexanol
- 10 1 - (3-chloro-4-fluoro-phenyl) - 2 - [4 - (3-chloro-phenyl) - piperazin-1-ylmethyl] - cyclohexanol
- 2 - [4 - (3-chloro-phenyl) - piperazin-1-ylmethyl] - 1 - (3-trifluoromethyl-phenyl) - cyclohexanol
- 15 2 - [4 - (3-chloro-phenyl) - piperazin-1-ylmethyl] - 1 - (3-methyl-benzyl) - cyclohexanol
- 1 - (4-chloro-benzyl) - 2 - [4 - (3-chloro-phenyl) - piperazin-1-ylmethyl] - cyclohexanol
- 1 - (2-chloro-6-fluoro-benzyl) - 2 - [4 - (3-chloro-phenyl) - piperazin-1-ylmethyl] - cyclohexanol
- 20 2 - [4 - (3-chloro-phenyl) - piperazin-1-ylmethyl] - 1 - (2,5-dimethyl-benzyl) - cyclohexanol
- 1 - (3-chloro-benzyl) - 2 - [4 - (3-chloro-phenyl) - piperazin-1-ylmethyl] - cyclohexanol
- 25 2 - [4 - (2-chloro-phenyl) - piperazin-1-ylmethyl] - 1-phenyl-cyclohexanol
- 1 - (4-chloro-phenyl) - 2 - [4 - (2-chloro-phenyl) - piperazin-1-ylmethyl] - cyclohexanol
- 1-benzyl-2 - [4 - (2-chloro-phenyl) - piperazin-1-ylmethyl] - cyclohexanol
- 30 2 - [4 - (2-chloro-phenyl) - piperazin-1-ylmethyl] - 1 - (4-fluoro-3-methyl-phenyl) - cyclohexanol

WO 03/051369

PCT/EP02/13911

26

- 2-[4-(2-chloro-phenyl)-piperazin-1-ylmethyl]-1-o-tolyl-cyclohexanol
- 2-[4-(2-chloro-phenyl)-piperazin-1-ylmethyl]-1-vinyl-cyclohexanol
- 5 1-(4-tert-butyl-phenyl)-2-[4-(2-chloro-phenyl)-piperazin-1-ylmethyl]-cyclohexanol
- 2-[4-(2-chloro-phenyl)-piperazin-1-ylmethyl]-1-cyclopentyl-cyclohexanol
- 2-[4-(2-chloro-phenyl)-piperazin-1-ylmethyl]-1-m-tolyl-
- 10 cyclohexanol
- 2-[4-(2-chloro-phenyl)-piperazin-1-ylmethyl]-bicyclohexyl-1-ol
- 2-[4-(2-chloro-phenyl)-piperazin-1-ylmethyl]-1-(4-fluoro-phenyl)-cyclohexanol
- 15 2-[4-(2-chloro-phenyl)-piperazin-1-ylmethyl]-1-phenethyl-cyclohexanol
- 2-[4-(2-chloro-phenyl)-piperazin-1-ylmethyl]-1-phenylethynyl-cyclohexanol
- 2-[4-(2-chloro-phenyl)-piperazin-1-ylmethyl]-1-thiophen-2-
- 20 yl-cyclohexanol
- 2-[4-(2-chloro-phenyl)-piperazin-1-ylmethyl]-1-(3-methoxy-phenyl)-cyclohexanol
- 2-[4-(2-chloro-phenyl)-piperazin-1-ylmethyl]-1-(3-phenyl-propyl)-cyclohexanol
- 25 2-[4-(2-chloro-phenyl)-piperazin-1-ylmethyl]-1-p-tolyl-cyclohexanol
- 2-[4-(2-chloro-phenyl)-piperazin-1-ylmethyl]-1-(4-methoxy-phenyl)-cyclohexanol
- 2-[4-(2-chloro-phenyl)-piperazin-1-ylmethyl]-1-
- 30 cyclohexylmethyl-cyclohexanol
- 2-[4-(2-chloro-phenyl)-piperazin-1-ylmethyl]-1-(5-fluoro-2-methoxy-phenyl)-cyclohexanol

WO 03/051369

PCT/EP02/13911

27

- 1- (3-chloro-phenyl) -2- [4- (2-chloro-phenyl) -piperazin-1-ylmethyl] -cyclohexanol
- 2- [4- (2-chloro-phenyl) -piperazin-1-ylmethyl] -1- (3,5-dichloro-phenyl) -cyclohexanol
- 5 1- (2-chloro-benzyl) -2- [4- (2-chloro-phenyl) -piperazin-1-ylmethyl] -cyclohexanol
- 2- [4- (2-chloro-phenyl) -piperazin-1-ylmethyl] -1- (4-fluoro-benzyl) -cyclohexanol
- 2- [4- (2-chloro-phenyl) -piperazin-1-ylmethyl] -1- (3-methoxy-benzyl) -cyclohexanol
- 10 2- [4- (2-chloro-phenyl) -piperazin-1-ylmethyl] -1- (4-chloro-3-trifluoromethyl-phenyl) -cyclohexanol
- 2- [4- (2-chloro-phenyl) -piperazin-1-ylmethyl] -1- (3-fluoro-benzyl) -cyclohexanol
- 15 2- [4- (2-chloro-phenyl) -piperazin-1-ylmethyl] -1- (2-methoxy-phenyl) -cyclohexanol
- 2- [4- (2-chloro-phenyl) -piperazin-1-ylmethyl] -1- (2-methyl-benzyl) -cyclohexanol
- 1- (3-chloro-4-fluoro-phenyl) -2- [4- (2-chloro-phenyl) -piperazin-1-ylmethyl] -cyclohexanol
- 20 2- [4- (2-chloro-phenyl) -piperazin-1-ylmethyl] -1- (3-trifluoromethyl-phenyl) -cyclohexanol
- 2- [4- (2-chloro-phenyl) -piperazin-1-ylmethyl] -1- (3-methyl-benzyl) -cyclohexanol
- 25 1- (4-chloro-benzyl) -2- [4- (2-chloro-phenyl) -piperazin-1-ylmethyl] -cyclohexanol
- 1- (2-chloro-6-fluoro-benzyl) -2- [4- (2-chloro-phenyl) -piperazin-1-ylmethyl] -cyclohexanol
- 2- [4- (2-chloro-phenyl) -piperazin-1-ylmethyl] -1- (2,5-dimethyl-benzyl) -cyclohexanol
- 30 1- (3-chloro-benzyl) -2- [4- (2-chloro-phenyl) -piperazin-1-ylmethyl] -cyclohexanol

WO 03/051369

PCT/EP02/13911

28

- 2-[4-(2-chloro-phenyl)-piperazin-1-ylmethyl]-1-(2,4-dichloro-benzyl)-cyclohexanol
- 2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-1-phenyl-cyclohexanol
- 5 1-(4-chloro-phenyl)-2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-cyclohexanol
- 1-benzyl-2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-cyclohexanol
- 1-(4-fluoro-3-methyl-phenyl)-2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-cyclohexanol
- 10 2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-1-o-tolyl-cyclohexanol
- 2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-1-vinyl-cyclohexanol
- 15 1-(4-tert-butyl-phenyl)-2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-cyclohexanol
- 1-cyclopentyl-2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-cyclohexanol
- 2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-1-m-tolyl-cyclohexanol
- 20 2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-bicyclohexyl-1-ol
- 1-(4-fluoro-phenyl)-2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-cyclohexanol
- 25 2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-1-phenethyl-cyclohexanol
- 2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-1-phenylethynyl-cyclohexanol
- 2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-1-thiophen-2-yl-cyclohexanol
- 30 1-(3-methoxy-phenyl)-2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-cyclohexanol

WO 03/051369

PCT/EP02/13911

29

- 2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-1-(3-phenyl-propyl)-cyclohexanol
- 1-(2,3-dichloro-phenyl)-2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-cyclohexanol
- 5 2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-1-p-tolyl-cyclohexanol
- 1-(4-methoxy-phenyl)-2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-cyclohexanol
- 1-cyclohexylmethyl-2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-cyclohexanol
- 10 1-(5-fluoro-2-methoxy-phenyl)-2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-cyclohexanol
- 1-(3-fluoro-phenyl)-2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-cyclohexanol
- 15 1-(3-chloro-phenyl)-2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-cyclohexanol
- 1-(3,5-dichloro-phenyl)-2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-cyclohexanol
- 1-(2-chloro-benzyl)-2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-cyclohexanol
- 20 1-(4-fluoro-benzyl)-2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-cyclohexanol
- 1-(3-methoxy-benzyl)-2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-cyclohexanol
- 25 1-(4-chloro-3-trifluoromethyl-phenyl)-2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-cyclohexanol
- 1-(3-fluoro-benzyl)-2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-cyclohexanol
- 1-(2-methoxy-phenyl)-2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-cyclohexanol
- 30 2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-1-(2-methyl-benzyl)-cyclohexanol

WO 03/051369

PCT/EP02/13911

30

- 1 - (3-chloro-4-fluoro-phenyl) - 2 - [4 - (2-methoxy-phenyl) -
piperazin-1-ylmethyl] - cyclohexanol
- 2 - [4 - (2-methoxy-phenyl) - piperazin-1-ylmethyl] - 1 - (3-
trifluoromethyl-phenyl) - cyclohexanol
- 5 2 - [4 - (2-methoxy-phenyl) - piperazin-1-ylmethyl] - 1 - (3-methyl-
benzyl) - cyclohexanol
- 1 - (4-chloro-benzyl) - 2 - [4 - (2-methoxy-phenyl) - piperazin-1-
ylmethyl] - cyclohexanol
- 1 - (2-chloro-6-fluoro-benzyl) - 2 - [4 - (2-methoxy-phenyl) -
10 piperazin-1-ylmethyl] - cyclohexanol
- 1 - (2,5-dimethyl-benzyl) - 2 - [4 - (2-methoxy-phenyl) - piperazin-
1-ylmethyl] - cyclohexanol
- 1 - (3-chloro-benzyl) - 2 - [4 - (2-methoxy-phenyl) - piperazin-1-
ylmethyl] - cyclohexanol
- 15 1 - (2,4-dichloro-benzyl) - 2 - [4 - (2-methoxy-phenyl) - piperazin-
1-ylmethyl] - cyclohexanol
- 1-benzyl-2 - [4 - (2-methoxy-phenyl) - piperazin-1-ylmethyl] -
cyclododecanol
- 2 - [4 - (2-methoxy-phenyl) - piperazin-1-ylmethyl] - 1-vinyl-
20 cyclododecanol
- 1-phenethyl-2 - [phenyl - (4-phenyl-piperazin-1-yl) - methyl] -
cyclohexanol
- 1-benzyl-2 - [(4-methyl-piperazin-1-yl) - phenyl-methyl] -
cyclohexanol
- 25 1-benzyl-2 - [phenyl - (4-phenyl-piperazin-1-yl) - methyl] -
cyclohexanol
- 2 - [(4-methyl-piperazin-1-yl) - phenyl-methyl] - 1-phenethyl-
cyclohexanol
- 2 - [4 - (2-methoxy-phenyl) - piperazin-1-ylmethyl] - 1-phenethyl-
30 cyclododecanol

WO 03/051369

PCT/EP02/13911

31

in the form of the diastereomer, the enantiomer and a mixture thereof - including the racemate - and in the form of the corresponding base, the corresponding salt and the corresponding solvate.

5

The medicaments according to the invention are preferably suitable for treatment of pain, in particular neuropathic, chronic and/or acute pain, for treatment of symptoms associated in particular with neuropathic pain, and/or
10 other related indications, for treatment of migraine, hyperalgesia and/or allodynia, in particular thermal hyperalgesia, mechanical hyperalgesia, mechanical allodynia and/or cold allodynia, for treatment of inflammatory and/or postoperative pain, for treatment of neurodegenerative
15 diseases, such as Alzheimer's disease, Huntington's disease, Parkinson's disease and/or epilepsy, for treatment of psychiatric and/or neuropathological disorders, such as bipolar disorders, anxiety, panic attacks, mood swings, manic behaviour, depressions and manic-depressive
20 behaviour, for treatment of hot flushes, symptoms in the postmenopause, amyotrophic lateral sclerosis (ALS), reflex sympathetic dystrophy (RSD), spastic paralysis, restless leg syndrome, acquired nystagmus and painful diabetic neuropathy, for treatment of symptoms and/or pain caused by
25 multiple sclerosis and/or Parkinson's disease, and for treatment of gastrointestinal damage, erythromelalgic and/or postpoliomyelitic pain and trigeminal and/or postherpetic neuralgia.

30 The invention also provides the use of at least one compound of the general formula I, preferably of the general formula II, III, IV, V, VI or VII, for the

WO 03/051369

PCT/EP02/13911

32

preparation of a medicament for treatment of pain, in particular neuropathic, chronic and/or acute pain, for treatment of symptoms associated in particular with neuropathic pain, and/or other related indications, for treatment of migraine, hyperalgesia and/or allodynia, in particular thermal hyperalgesia, mechanical hyperalgesia, mechanical allodynia and/or cold allodynia, for treatment of inflammatory and/or postoperative pain, for treatment of neurodegenerative diseases, such as Alzheimer's disease, Huntington's disease, Parkinson's disease and/or epilepsy, for treatment of psychiatric and/or neuropathological disorders, such as bipolar disorders, anxiety, panic attacks, mood swings, manic behaviour, depressions and manic-depressive behaviour, for treatment of hot flushes, symptoms in the postmenopause, amyotrophic lateral sclerosis (ALS), reflex sympathetic dystrophy (RSD), spastic paralysis, restless leg syndrome, acquired nystagmus and painful diabetic neuropathy, for treatment of symptoms and/or pain caused by multiple sclerosis and/or Parkinson's disease, and for treatment of gastrointestinal damage, erythromelalgic and/or postpoliomyelitic pain and trigeminal and/or postherpetic neuralgia.

The medicaments according to the invention can be formulated as liquid, semi-solid or solid medicament forms, for example in the form of injection solutions, drops, juices, syrups, sprays, suspensions, tablets, patches, capsules, plasters, suppositories, ointments, creams, lotions, gels, emulsions or aerosols or in multiparticulate form, for example in the form of pellets or granules, and also administered as such.

WO 03/051369

PCT/EP02/13911

33

In addition to at least one compound of the general formula I, preferably of the general formula II, III, IV, V, VI or VII, the medicaments according to the invention conventionally comprise further physiologically acceptable pharmaceutical auxiliary substances, which are preferably
5 chosen from the group consisting of carrier materials, fillers, solvents, diluents, surface-active substances, dyestuffs, preservatives, disintegrating agents, slip agents, lubricants, flavourings and binders.

10

The choice of the physiologically acceptable auxiliary substances and the amounts thereof to be employed depends on whether the medicament is to be administered orally, subcutaneously, parenterally, intravenously,
15 intraperitoneally, intradermally, intramuscularly, intranasally, buccally, rectally or locally, for example on infections on the skin, the mucous membranes and on the eyes. Formulations in the form of tablets, coated tablets, capsules, granules, pellets, drops, juices and syrups are
20 preferably suitable for oral administration, and solutions, suspensions, easily reconstitutable dry formulations and sprays are suitable for parenteral, topical and inhalatory administration. Compounds of the general formula I, preferably of the general formula II, III, IV, V, VI or
25 VII, in a depot in dissolved form or in a patch, optionally with the addition of agents which promote penetration through the skin, are suitable formulations for percutaneous administration.

30 The medicaments according to the invention are prepared with the aid of conventional means, devices, methods and processes known to the expert, such as are described, for

WO 03/051369

PCT/EP02/13911

34

example, in A.R. Gennaro (ed.), Remington's Pharmaceutical Sciences, 17th edition, Mack Publishing Company, Easton, Pa. (1985), in particular in part 8, chapter 76 to 93. The corresponding description in the literature is introduced
5 herewith as reference and forms part of the disclosure.

The amount of the particular compound of the general formula I, preferably of the general formula II, III, IV, V, VI or VII, to be administered to the patient can vary
10 and depends, for example, on the weight or age of the patient and on the mode of administration, the indication and the severity of the disease. 0.005 to 500 mg/kg, preferably 0.05 to 5 mg/kg of body weight of the patient of
at least one compound of the general formula I, preferably
15 of the general formula II, III, IV, V, VI or VII, are conventionally administered.

WO 03/051369

PCT/EP02/13911

35

Examples**Pharmacological studies**

5 In the binding assay, the binding and affinities of the compounds according to the invention to the binding site - which is also hitherto still unknown in science - of gabapentin is investigated. The affinity of the compounds was measured via the displacement of gabapentin from its
10 binding site.

The procedure for the measurement was as follows:
Homogenate aliquots were thawed and diluted 20-fold with buffer 1, resuspended and then centrifuged at 110,000 x g
15 for 20 minutes. The pellet was resuspended with buffer 2 (10 mM HEPES, 0.05% NaN₃, 1 tablet of Complete (Roche Diagnostics) per 100 ml, 0.004% Structol, pH 7.4) and adjusted to a protein concentration of 0.6 mg/ml.
225 µl of homogenate, 20 µl of [³H]-gabapentin (76 Ci/mmol)
20 in buffer 2, corresponding to a concentration of 10 nM in the test batch, and 5 µl of a compound according to the invention (dissolved in 25% DMSO in water) with a concentration of 10 µM in the test batch were incubated on a shaking machine for 40 minutes at room temperature in 96-
25 well microtitre plates (polypropylene, Costar) and the incubated mixture was then filtered with suction on 96-well Unifilter plates with GF/B filters (Whatman) using a harvester (Robotic Harvester 9600, Brandel). The filter plates were preswollen for 40 minutes in buffer 3 (50 mM
30 Tris, 0.5% PEI, pH 7.4) before the filtering step. The filter plates were washed three times with wash buffer (0.1 M NaCl with 0.05 NaN₃) after the filtering step in order to

WO 03/051369

PCT/EP02/13911

36

remove non-bound radioligand, and then dried in a drying cabinet at 55°C. After a cooling phase of 15 minutes, 35 µl of scintillator (Ultima Gold MV, Packard) were added per well and the radioactivity on the filters was then
5 determined in a β -counter (Trilux Microbeta, Wallac).

The compounds of the general formula I, preferably of the general formula II, III, IV, V, VI or VII, showed a good inhibition or displacement of gabapentin in this assay.
10 The compounds investigated therefore show an affinity to the hitherto unknown gabapentin-binding site in this one biochemical assay.

It can be expected that the compounds according to the
15 invention display comparable pharmacological properties to gabapentin, e.g. as an agent against pain or epilepsy. This has been demonstrated by their analgesic action. Thus, the compounds according to the invention not only displace gabapentin from its binding site but also - like
20 gabapentin - have a significant analgesic action.

WO 03/051369

PCT/EP02/13911

37

	Gabapentin [%] inhibition
1-(2-Chloro-benzyl)-2-(4-methyl-piperazin-1-ylmethyl)-cyclooctanol	61
1-(4-Fluoro-benzyl)-2-(4-methyl-piperazin-1-ylmethyl)-cyclooctanol	39
1-(3-Fluoro-benzyl)-2-(4-methyl-piperazin-1-ylmethyl)-cyclooctanol	42
1-(2-Chloro-6-fluoro-benzyl)-2-(4-methyl-piperazin-1-ylmethyl)-cyclooctanol	60
1-(2,4-Dichloro-benzyl)-2-(4-methyl-piperazin-1-ylmethyl)-cyclooctanol	48
1-(2-Chloro-benzyl)-2-(4-methyl-piperazin-1-ylmethyl)-cycloheptanol	74
1-(3-Fluoro-benzyl)-2-(4-methyl-piperazin-1-ylmethyl)-cycloheptanol	44
1-(2-Chloro-6-fluoro-benzyl)-2-(4-methyl-piperazin-1-ylmethyl)-cycloheptanol	82
1-(2,4-Dichloro-benzyl)-2-(4-methyl-piperazin-1-ylmethyl)-cycloheptanol	48
1-Benzyl-2-(4-methyl-piperazin-1-ylmethyl)-cyclododecanol	56
2-(4-Methyl-piperazin-1-ylmethyl)-1-vinyl-cyclododecanol	49
1-(3-Fluoro-benzyl)-2-(4-methyl-piperazin-1-ylmethyl)-cyclododecanol	45

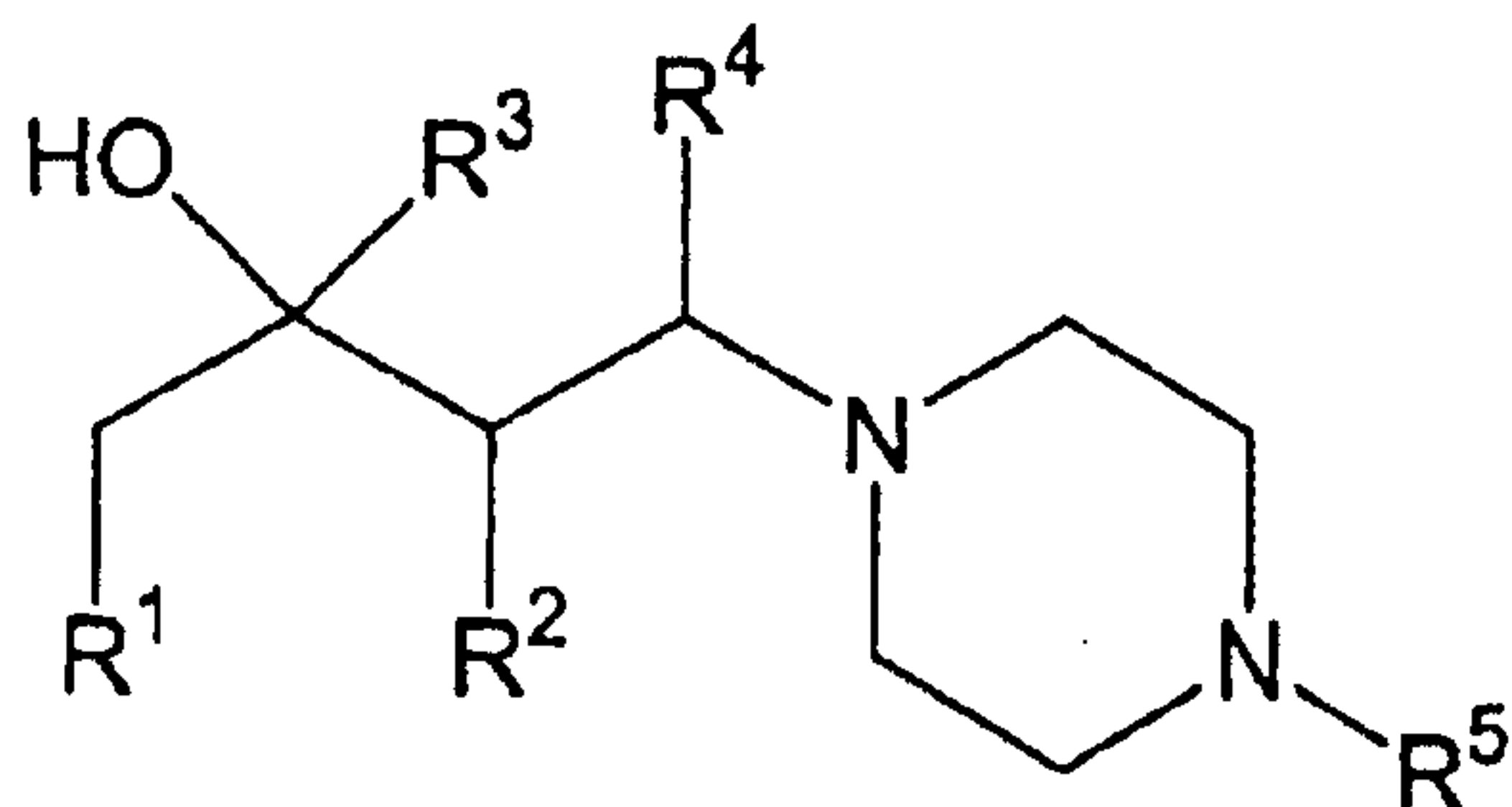
WO 03/051369

PCT/EP02/13911

38

Patent claims

1. Medicament comprising at least one N,N'-disubstituted piperazine compound of the general formula I



5

wherein

R^1 and R^2 are identical or different and in each case represent a linear or branched, saturated or unsaturated aliphatic radical, or together form a $(CH_2)_n$ chain, wherein n represents an integer,

10

R^3 and R^5 are identical or different and in each case represent a linear or branched, saturated or unsaturated aliphatic radical, a saturated or unsaturated cycloaliphatic radical, an aryl radical or a heteroaryl radical, wherein the particular ring system optionally can be mono- or polysubstituted and/or can be bonded via a linear or branched, saturated or unsaturated aliphatic bridge and/or the aryl or heteroaryl radical can be part of a polycyclic system,

15

20

R^4 represents hydrogen or an optionally mono- or polysubstituted aryl or heteroaryl radical, wherein the aryl or heteroaryl radical can be part of a polycyclic system,

25

WO 03/051369

PCT/EP02/13911

39

in the form of its diastereomers, its enantiomers and mixtures thereof - including its racemates - and in the form of corresponding bases, salts and solvates, as the active compound

5

and optionally physiologically acceptable auxiliary substances.

2. Medicaments comprising at least one compound according to claim 1, characterized in that

10

R^1 and R^2 are identical or different and in each case represent a linear or branched, saturated or unsaturated aliphatic C_{1-6} radical or together form a $(CH_2)_n$ chain, wherein n represents an integer from 2 to 9.

15

R^3 represents a linear or branched, saturated or unsaturated aliphatic C_{1-6} radical, a saturated or unsaturated cycloaliphatic C_{3-7} radical, a phenyl radical or a five- or six-membered heteroaryl radical, wherein the particular ring system optionally can be mono- or polysubstituted and/or can be bonded via a linear or branched, saturated or unsaturated aliphatic C_{1-5} bridge,

20

25

R_4 represents hydrogen or a phenyl radical,

30

R^5 represents a linear or branched, saturated or unsaturated aliphatic C_{1-6} radical or an optionally substituted phenyl radical.

WO 03/051369

PCT/EP02/13911

40

3. Medicaments comprising at least one compound according to claim 1, characterized in that

5 R^1 and R^2 are identical or different and in each case represent a linear or branched, saturated or unsaturated aliphatic C_{1-3} radical or together form a $(CH_2)_n$ chain, wherein n represents an integer from 2 to 9,

10 R^3 represents a linear or branched, saturated or unsaturated aliphatic C_{1-3} radical, a saturated or unsaturated cycloaliphatic C_{5-6} radical, a phenyl radical or a five- or six-membered heteroaryl radical, wherein the particular ring system optionally can be
15 mono- or polysubstituted by halogen, an alkyl group, an alkoxy group and/or a trihalogenated alkyl group and/or can be bonded via a linear or branched, saturated or unsaturated aliphatic C_{1-3} bridge,

20 R^4 represents hydrogen or a phenyl radical,

R^5 represents a linear or branched, saturated or unsaturated aliphatic C_{1-3} radical or a phenyl radical which is optionally substituted by halogen or an
25 alkoxy group.

4. Medicaments comprising at least one compound according to claim 1, characterized in that

30 R^1 and R^2 in each case represent a methyl group or together form a $(CH_2)_n$ chain, wherein n represents 3, 4, 5 or 9,

WO 03/051369

PCT/EP02/13911

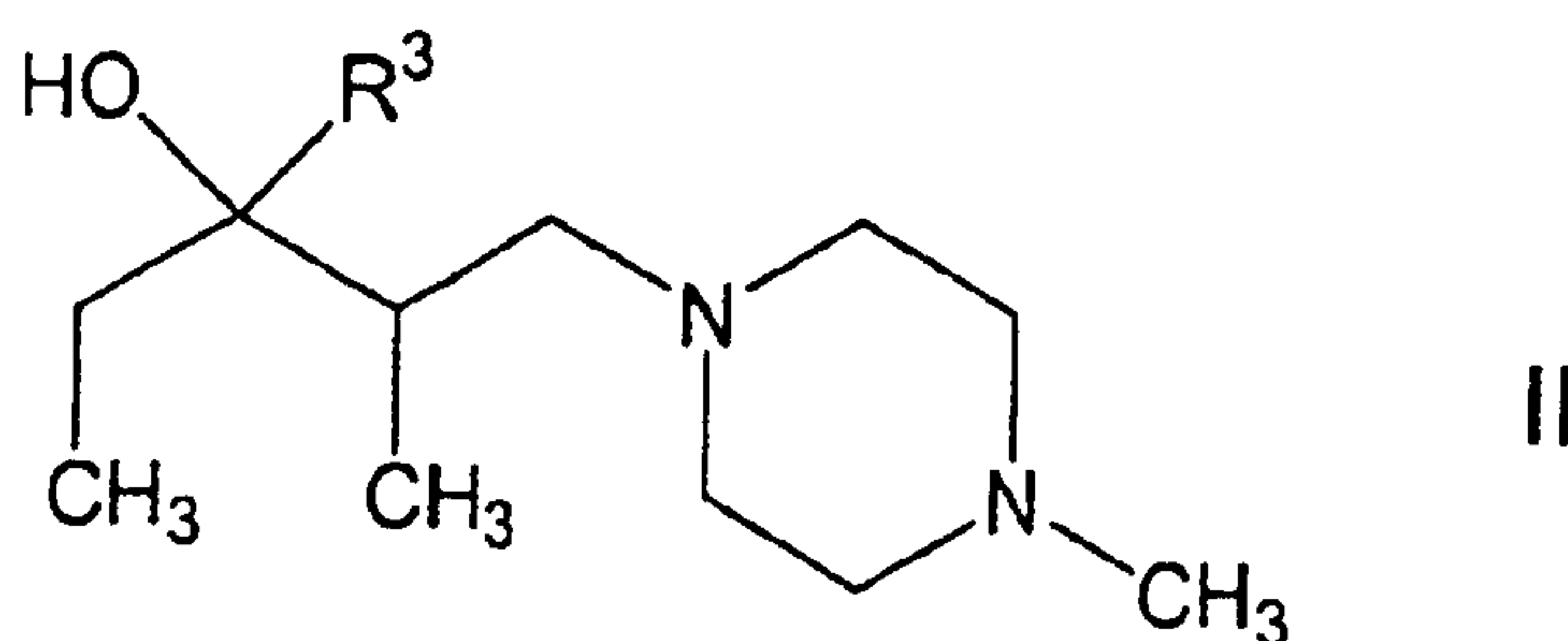
41

5 R^3 represents a vinyl radical, a cyclopentyl radical,
 a cyclohexyl radical, a thiophenyl radical or a phenyl
 radical, wherein the cyclohexyl radical optionally can
 be bonded via a methylene bridge or the phenyl radical
 optionally can be mono- or polysubstituted by
 fluorine, chlorine, a methyl group, an isopropyl
 group, a methoxy group and/or a trifluoromethyl group
 and/or optionally can be bonded via a linear,
 10 saturated aliphatic C_{1-3} bridge or an ethynyl bridge,

R^4 represents hydrogen or a phenyl radical,

15 R^5 represents a methyl group or a phenyl radical which
 is optionally substituted by chlorine or a methoxy
 group.

5. Medicaments comprising at least one compound according to claim 1, corresponding to the general formula II



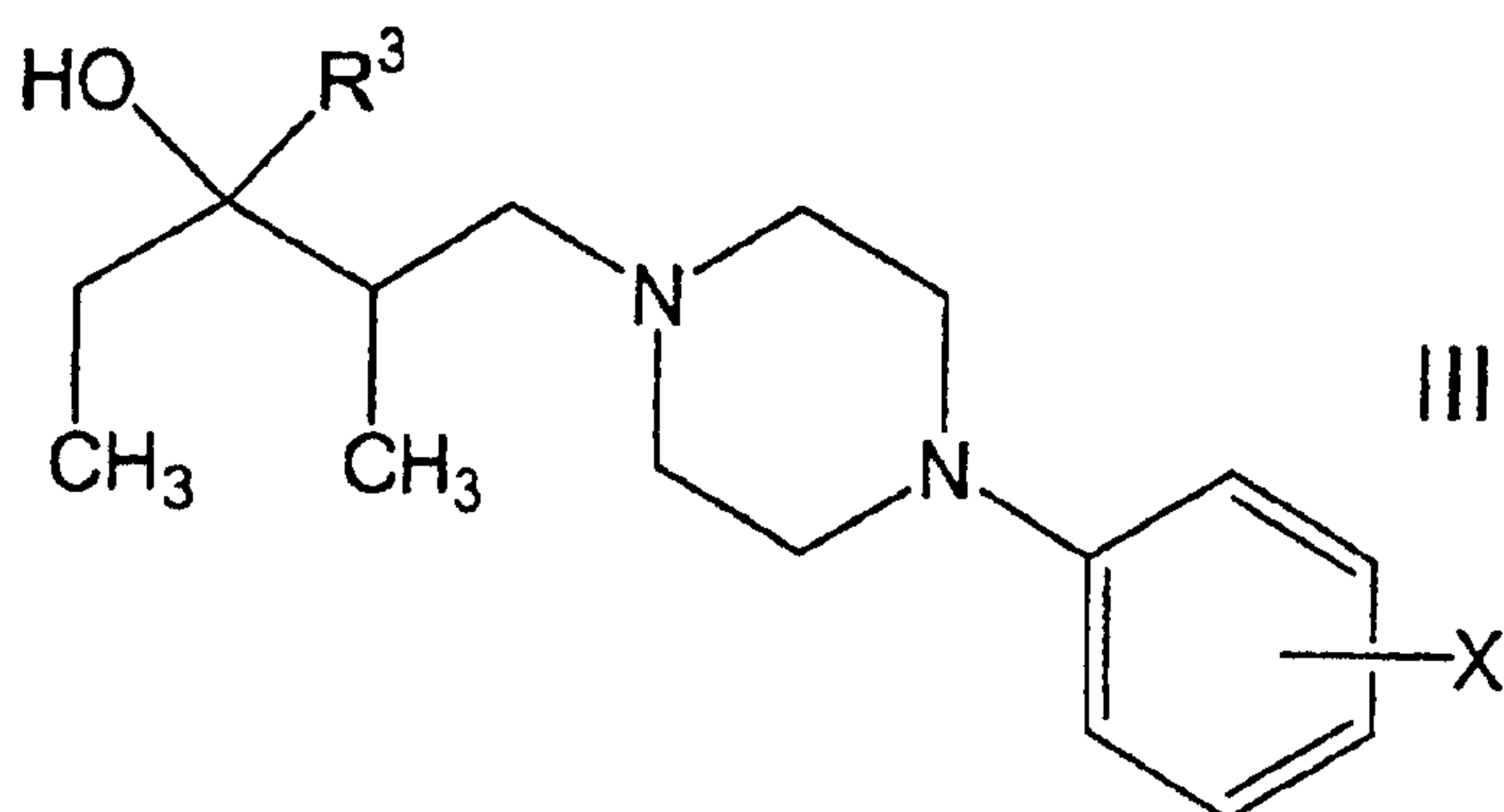
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6. Medicaments comprising at least one compound according to claim 1, corresponding to the general formula III

WO 03/051369

PCT/EP02/13911

42

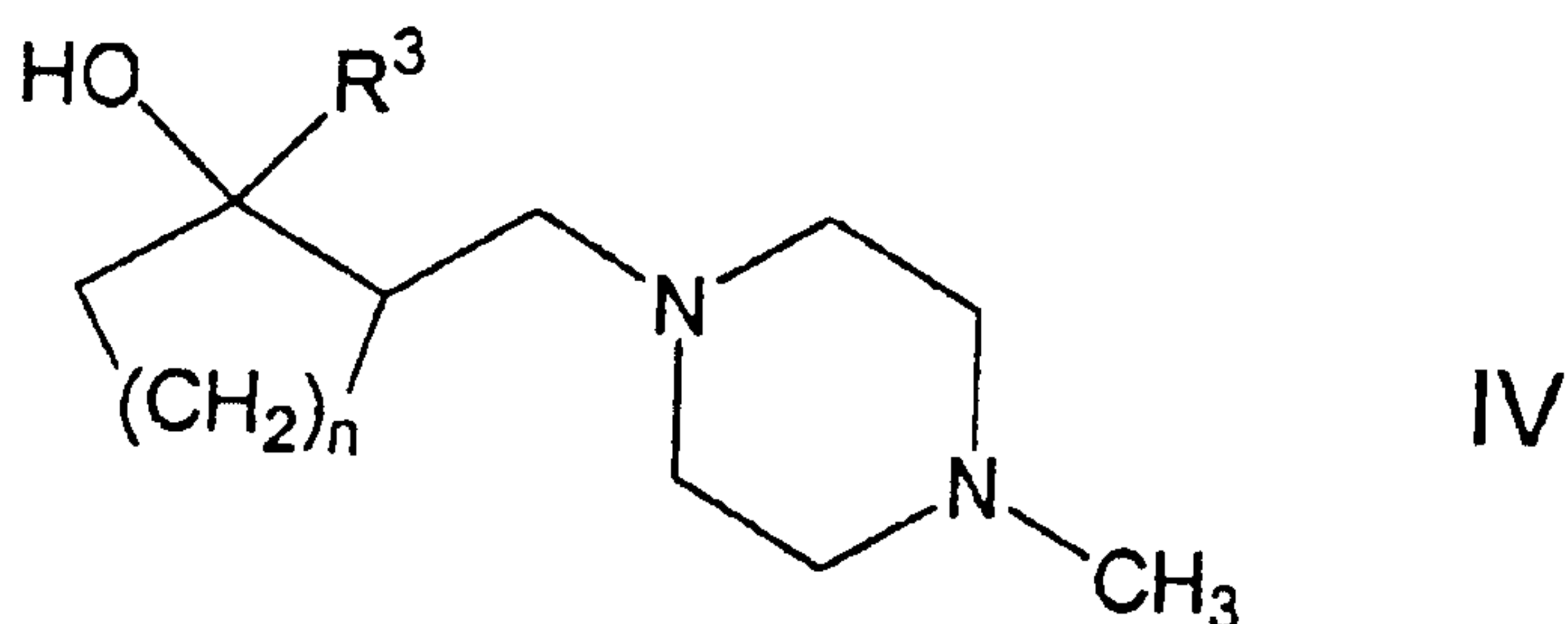


wherein

X represents hydrogen, halogen or an alkoxy group, preferably hydrogen, chlorine or a methoxy group.

5

7. Medicaments comprising at least one compound according to claim 1, corresponding to the general formula IV

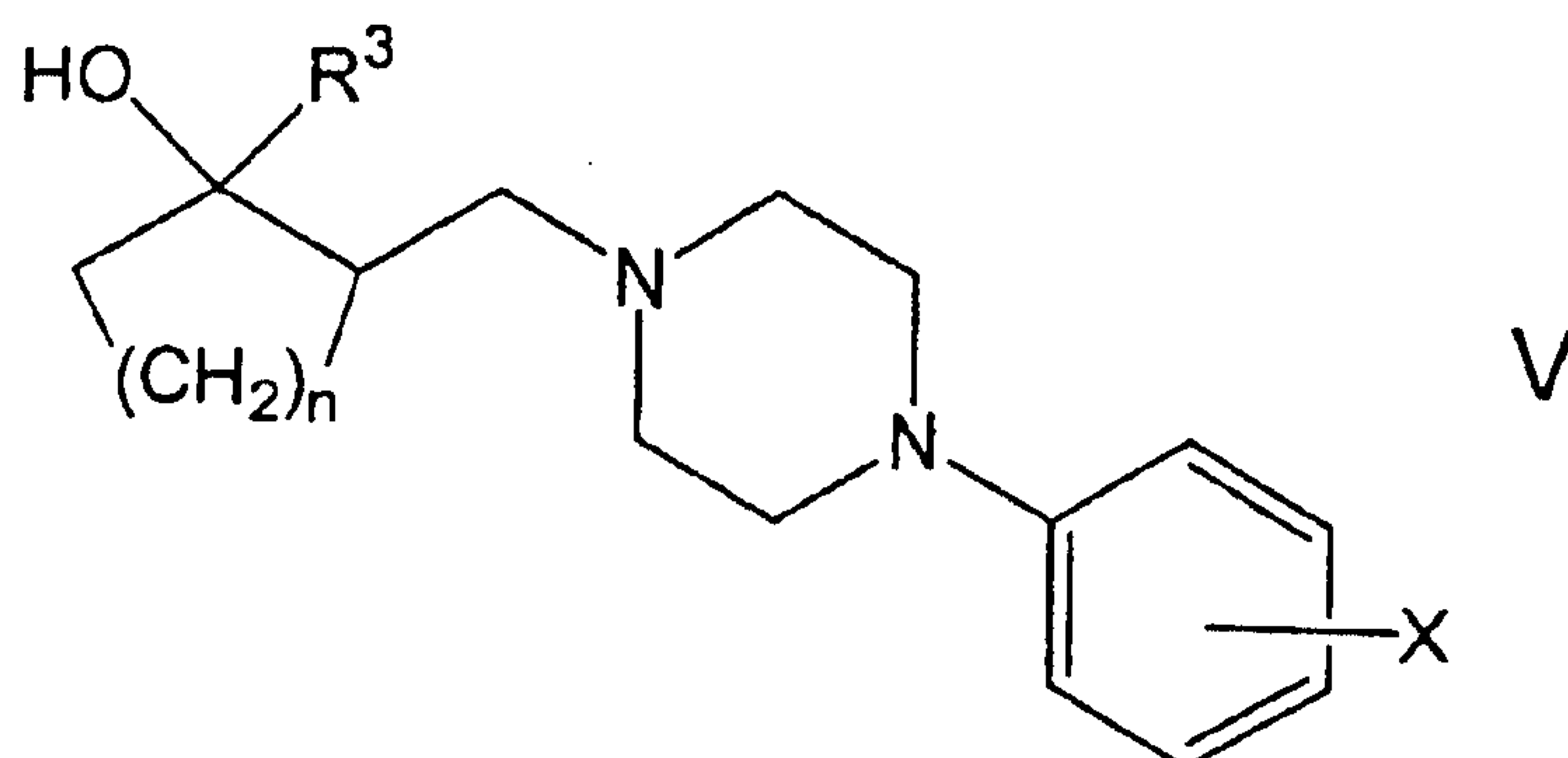


wherein

10

n represents an integer from 2 to 9.

8. Medicaments comprising at least one compound according to claim 1, corresponding to the general formula V



WO 03/051369

PCT/EP02/13911

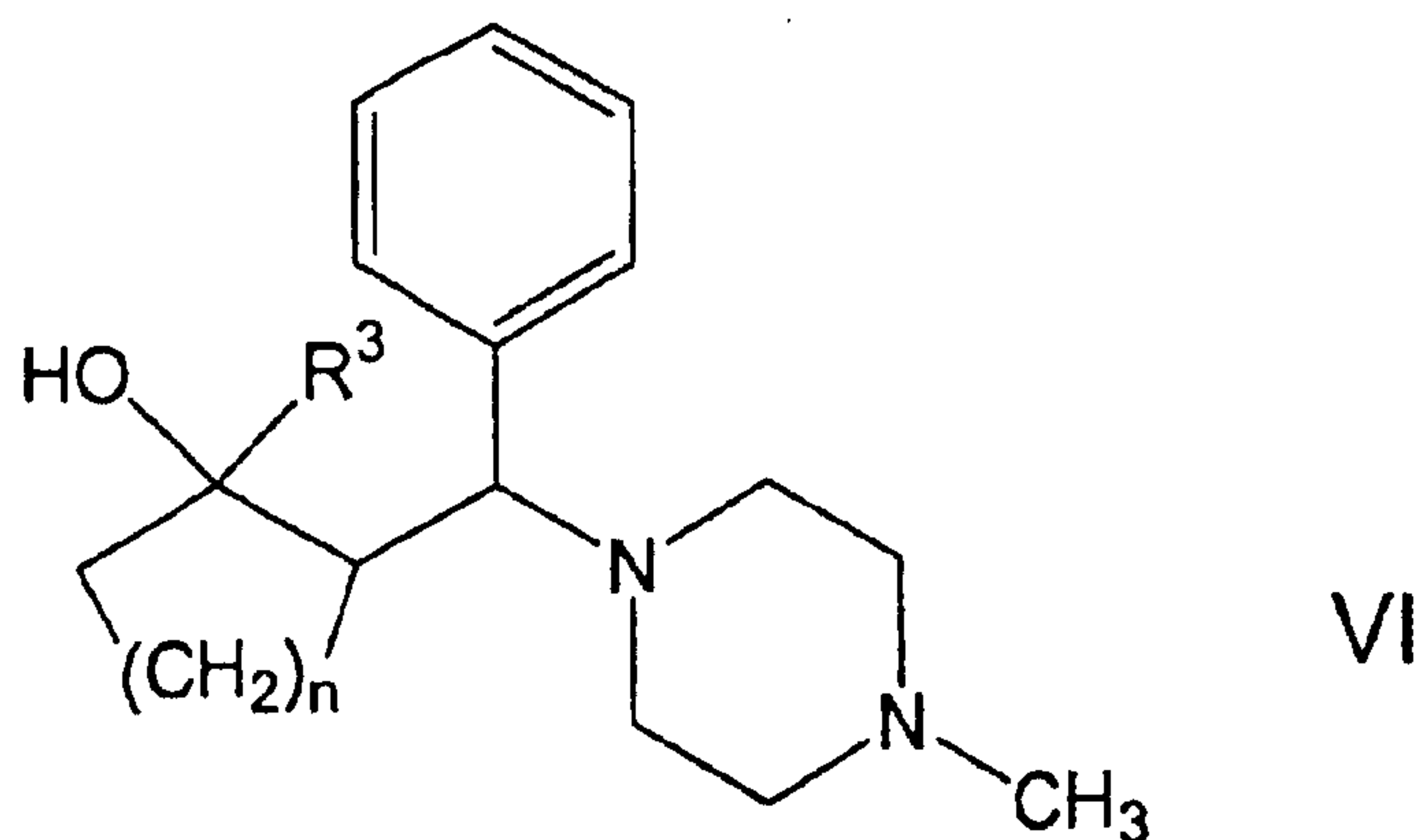
43

wherein

n represents an integer from 2 to 9,

X represents hydrogen, halogen or an alkoxy group,
preferably hydrogen, chlorine or a methoxy group.

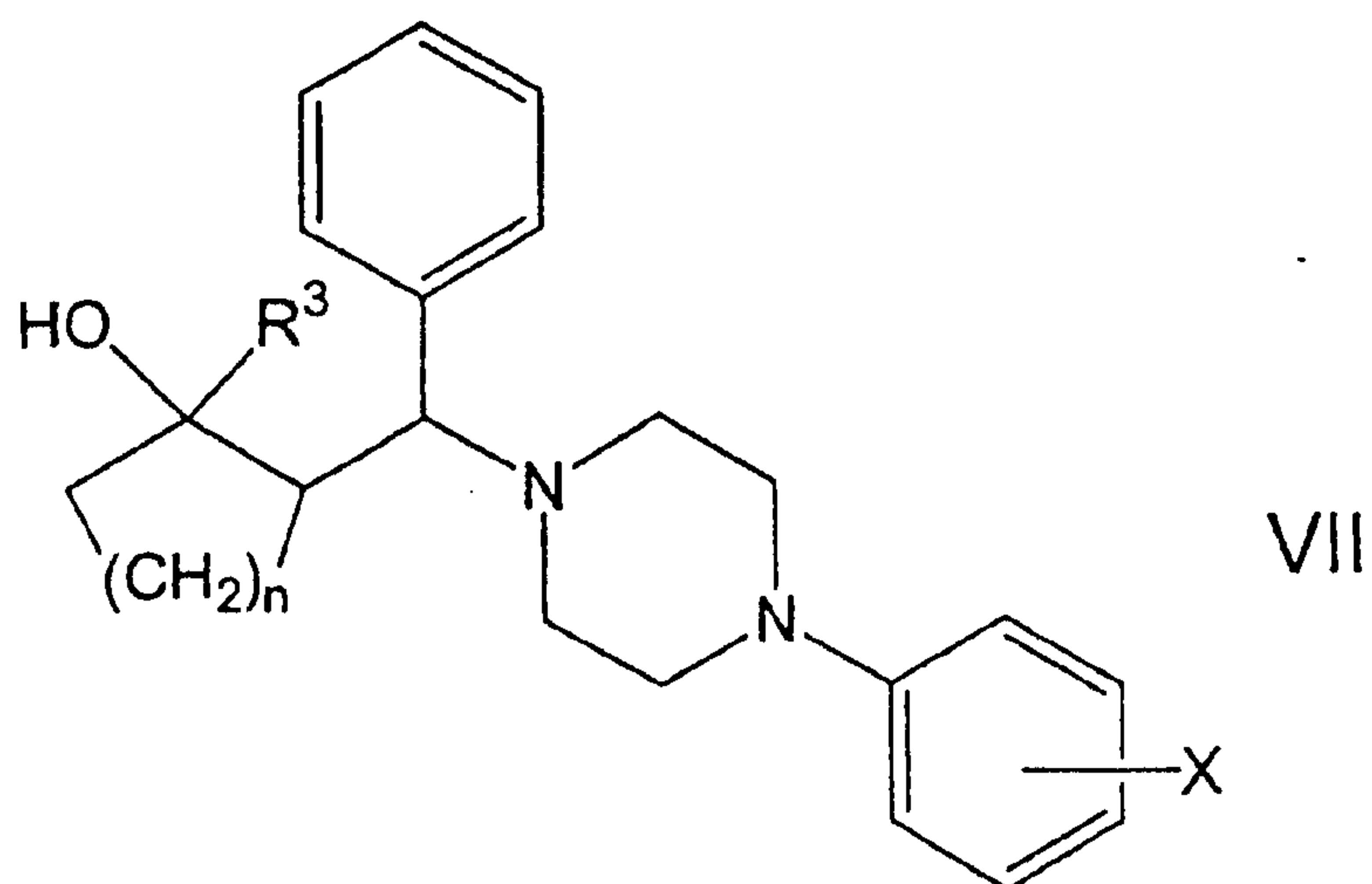
9. Medicaments comprising at least one compound according to claim 1, corresponding to the general formula VI



wherein

n represents an integer from 2 to 9.

10. Medicaments comprising at least one compound according to claim 1, corresponding to the general formula VII



wherein

WO 03/051369

PCT/EP02/13911

44

n represents an integer from 2 to 9,

X represents hydrogen, halogen or an alkoxy group,
preferably hydrogen, chlorine or a methoxy group.

5

11. Medicaments comprising at least one compound according to one of claims 5-10, characterized in that

10 R^3 represents a linear or branched, saturated or unsaturated aliphatic C_{1-6} radical, a saturated or unsaturated cycloaliphatic C_{3-7} radical, a phenyl radical or a five- or six-membered heteroaryl radical, wherein the particular ring system optionally can be mono- or polysubstituted and/or can be bonded via a
15 linear or branched, saturated or unsaturated aliphatic C_{1-5} bridge.

12. Medicaments comprising at least one compound according to one of claims 5-10, characterized in that

20

R^3 represents a linear or branched, saturated or unsaturated aliphatic C_{1-3} radical, a saturated or unsaturated cycloaliphatic C_{5-6} radical, a phenyl radical or a five- or six-membered heteroaryl radical,
25 wherein the particular ring system optionally can be mono- or polysubstituted by halogen, an alkyl group, an alkoxy group and/or a trihalogenated alkyl group and/or can be bonded via a linear or branched, saturated or unsaturated aliphatic C_{1-3} bridge.

30

13. Medicaments comprising at least one compound according to one of claims 5-10, characterized in that

WO 03/051369

PCT/EP02/13911

45

5 R³ represents a vinyl radical, a cyclopentyl radical,
a cyclohexyl radical, a thiophenyl radical or a phenyl
radical, wherein the cyclohexyl radical optionally can
be bonded via a methylene bridge or the phenyl radical
optionally can be mono- or polysubstituted by
fluorine, chlorine, a methyl group, an isopropyl
group, a methoxy group and/or a trifluoromethyl group
and/or optionally can be bonded via a linear,
10 saturated aliphatic C₁₋₃ bridge or an ethynyl bridge.

14. Medicaments comprising at least one compound according
to claim 1 chosen from the group comprising
- 15 2-methyl-1-(4-methyl-piperazin-1-yl)-3-phenyl-pentan-
3-ol
3-(4-chloro-phenyl)-2-methyl-1-(4-methyl-piperazin-1-
yl)-pentan-3-ol
3-benzyl-2-methyl-1-(4-methyl-piperazin-1-yl)-pentan-
20 3-ol
3-(4-fluoro-3-methyl-phenyl)-2-methyl-1-(4-methyl-
piperazin-1-yl)-pentan-3-ol
2-methyl-1-(4-methyl-piperazin-1-yl)-3-o-tolyl-pentan-
3-ol
25 3-ethyl-4-methyl-5-(4-methyl-piperazin-1-yl)-pent-1-
en-3-ol
3-(4-tert-butyl-phenyl)-2-methyl-1-(4-methyl-
piperazin-1-yl)-pentan-3-ol
3-cyclopentyl-2-methyl-1-(4-methyl-piperazin-1-yl)-
30 pentan-3-ol
2-methyl-1-(4-methyl-piperazin-1-yl)-3-m-tolyl-pentan-
3-ol

WO 03/051369

PCT/EP02/13911

46

- 3-cyclohexyl-2-methyl-1-(4-methyl-piperazin-1-yl)-
pentan-3-ol
- 3-(4-fluoro-phenyl)-2-methyl-1-(4-methyl-piperazin-1-
yl)-pentan-3-ol
- 5 3-ethyl-2-methyl-1-(4-methyl-piperazin-1-yl)-5-phenyl-
pentan-3-ol
- 3-ethyl-4-methyl-5-(4-methyl-piperazin-1-yl)-1-phenyl-
pent-1-yn-3-ol
- 2-methyl-1-(4-methyl-piperazin-1-yl)-3-thiophen-2-yl-
10 pentan-3-ol
- 3-(3-methoxy-phenyl)-2-methyl-1-(4-methyl-piperazin-1-
yl)-pentan-3-ol
- 3-ethyl-2-methyl-1-(4-methyl-piperazin-1-yl)-6-phenyl-
hexan-3-ol
- 15 2-methyl-1-(4-methyl-piperazin-1-yl)-3-p-tolyl-pentan-
3-ol
- 3-(4-methoxy-phenyl)-2-methyl-1-(4-methyl-piperazin-1-
yl)-pentan-3-ol
- 2-(4-methyl-piperazin-1-ylmethyl)-1-phenyl-
20 cyclohexanol
- 1-benzyl-2-(4-methyl-piperazin-1-ylmethyl)-
cyclohexanol
- 1-(4-fluoro-3-methyl-phenyl)-2-(4-methyl-piperazin-1-
ylmethyl)-cyclohexanol
- 25 2-(4-methyl-piperazin-1-ylmethyl)-1-o-tolyl-
cyclohexanol
- 2-(4-methyl-piperazin-1-ylmethyl)-1-vinyl-cyclohexanol
- 1-cyclopentyl-2-(4-methyl-piperazin-1-ylmethyl)-
cyclohexanol
- 30 2-(4-methyl-piperazin-1-ylmethyl)-1-m-tolyl-
cyclohexanol
- 2-(4-methyl-piperazin-1-ylmethyl)-bicyclohexyl-1-ol

WO 03/051369

PCT/EP02/13911

47

- 1 - (4-fluoro-phenyl) - 2 - (4-methyl-piperazin-1-ylmethyl) -
cyclohexanol
- 2 - (4-methyl-piperazin-1-ylmethyl) - 1-phenethyl-
cyclohexanol
- 5 2 - (4-methyl-piperazin-1-ylmethyl) - 1-thiophen-2-yl-
cyclohexanol
- 1 - (2,4-dichloro-phenyl) - 2 - (4-methyl-piperazin-1-
ylmethyl) - cyclohexanol
- 1 - (3-methoxy-phenyl) - 2 - (4-methyl-piperazin-1-
10 ylmethyl) - cyclohexanol
- 2 - (4-methyl-piperazin-1-ylmethyl) - 1 - (3-phenyl-propyl) -
cyclohexanol
- 2 - (4-methyl-piperazin-1-ylmethyl) - 1-p-tolyl-
cyclohexanol
- 15 1 - (4-methoxy-phenyl) - 2 - (4-methyl-piperazin-1-
ylmethyl) - cyclohexanol
- 1-benzyl-2 - (4-methyl-piperazin-1-ylmethyl) -
cyclooctanol
- 2 - (4-methyl-piperazin-1-ylmethyl) - 1-vinyl-cyclooctanol
- 20 1 - (4-tert-butyl-phenyl) - 2 - (4-methyl-piperazin-1-
ylmethyl) - cyclooctanol
- 1-cyclopentyl-2 - (4-methyl-piperazin-1-ylmethyl) -
cyclooctanol
- 2 - (4-methyl-piperazin-1-ylmethyl) - 1-phenethyl-
25 cyclooctanol
- 2 - (4-methyl-piperazin-1-ylmethyl) - 1-phenylethynyl-
cyclooctanol
- 2 - (4-methyl-piperazin-1-ylmethyl) - 1-thiophen-2-yl-
cyclooctanol
- 30 1 - (3-methoxy-phenyl) - 2 - (4-methyl-piperazin-1-
ylmethyl) - cyclooctanol

WO 03/051369

PCT/EP02/13911

48

- 2 - (4-methyl-piperazin-1-ylmethyl) - 1 - (3-phenyl-propyl) -
cyclooctanol
- 2 - (4-methyl-piperazin-1-ylmethyl) - 1 - p-tolyl -
cyclooctanol
- 5 1 - (4-methoxy-phenyl) - 2 - (4-methyl-piperazin-1-
ylmethyl) - cyclooctanol
- 2 - (4-methyl-piperazin-1-ylmethyl) - 1 - phenyl -
cycloheptanol
- 10 1 - (4-chloro-phenyl) - 2 - (4-methyl-piperazin-1-ylmethyl) -
cycloheptanol
- 1 - benzyl - 2 - (4-methyl-piperazin-1-ylmethyl) -
cycloheptanol
- 1 - (4-fluoro-3-methyl-phenyl) - 2 - (4-methyl-piperazin-1-
ylmethyl) - cycloheptanol
- 15 2 - (4-methyl-piperazin-1-ylmethyl) - 1 - o-tolyl -
cycloheptanol
- 2 - (4-methyl-piperazin-1-ylmethyl) - 1 - vinyl -
cycloheptanol
- 1 - (4-tert-butyl-phenyl) - 2 - (4-methyl-piperazin-1-
ylmethyl) - cycloheptanol
- 20 1 - cyclopentyl - 2 - (4-methyl-piperazin-1-ylmethyl) -
cycloheptanol
- 2 - (4-methyl-piperazin-1-ylmethyl) - 1 - m-tolyl -
cycloheptanol
- 25 1 - [4 - (3-chloro-phenyl) - piperazin-1-yl] - 2-methyl-3-
phenyl-pentan-3-ol
- 3 - (4-chloro-phenyl) - 1 - [4 - (3-chloro-phenyl) - piperazin-
1-yl] - 2-methyl-pentan-3-ol
- 3-benzyl-1 - [4 - (3-chloro-phenyl) - piperazin-1-yl] - 2-
methyl-pentan-3-ol
- 30 1 - [4 - (3-chloro-phenyl) - piperazin-1-yl] - 3 - (4-fluoro-3-
methyl-phenyl) - 2-methyl-pentan-3-ol

WO 03/051369

PCT/EP02/13911

49

- 5-[4-(3-chloro-phenyl)-piperazin-1-yl]-3-ethyl-4-methyl-pent-1-en-3-ol
- 3-(4-tert-butyl-phenyl)-1-[4-(3-chloro-phenyl)-piperazin-1-yl]-2-methyl-pentan-3-ol
- 5 1-[4-(3-chloro-phenyl)-piperazin-1-yl]-2-methyl-3-m-tolyl-pentan-3-ol
- 1-[4-(3-chloro-phenyl)-piperazin-1-yl]-3-cyclohexyl-2-methyl-pentan-3-ol
- 1-[4-(3-chloro-phenyl)-piperazin-1-yl]-3-(4-fluoro-phenyl)-2-methyl-pentan-3-ol
- 10 1-[4-(3-chloro-phenyl)-piperazin-1-yl]-3-ethyl-2-methyl-5-phenyl-pentan-3-ol
- 5-[4-(3-chloro-phenyl)-piperazin-1-yl]-3-ethyl-4-methyl-1-phenyl-pent-1-yn-3-ol
- 15 1-[4-(3-chloro-phenyl)-piperazin-1-yl]-2-methyl-3-thiophen-2-yl-pentan-3-ol
- 1-[4-(3-chloro-phenyl)-piperazin-1-yl]-3-(3-methoxy-phenyl)-2-methyl-pentan-3-ol
- 1-[4-(3-chloro-phenyl)-piperazin-1-yl]-3-ethyl-2-methyl-6-phenyl-hexan-3-ol
- 20 1-[4-(3-chloro-phenyl)-piperazin-1-yl]-2-methyl-3-p-tolyl-pentan-3-ol
- 1-[4-(3-chloro-phenyl)-piperazin-1-yl]-3-(4-methoxy-phenyl)-2-methyl-pentan-3-ol
- 25 1-[4-(3-chloro-phenyl)-piperazin-1-yl]-3-(5-fluoro-2-methoxy-phenyl)-2-methyl-pentan-3-ol
- 1-[4-(3-chloro-phenyl)-piperazin-1-yl]-3-(3-fluoro-phenyl)-2-methyl-pentan-3-ol
- 3-(3-chloro-phenyl)-1-[4-(3-chloro-phenyl)-piperazin-1-yl]-2-methyl-pentan-3-ol
- 30 3-(2-chloro-benzyl)-1-[4-(3-chloro-phenyl)-piperazin-1-yl]-2-methyl-pentan-3-ol

WO 03/051369

PCT/EP02/13911

50

- 1 - [4 - (3-chloro-phenyl) -piperazin-1-yl] -3 - (4-fluoro-benzyl) -2-methyl-pentan-3-ol
- 1 - [4 - (3-chloro-phenyl) -piperazin-1-yl] -3 - (3-methoxy-benzyl) -2-methyl-pentan-3-ol
- 5 1 - [4 - (3-chloro-phenyl) -piperazin-1-yl] -3 - (3-fluoro-benzyl) -2-methyl-pentan-3-ol
- 1 - [4 - (3-chloro-phenyl) -piperazin-1-yl] -3 - (2-methoxy-phenyl) -2-methyl-pentan-3-ol
- 10 1 - [4 - (3-chloro-phenyl) -piperazin-1-yl] -2-methyl-3 - (2-methyl-benzyl) -pentan-3-ol
- 1 - [4 - (3-chloro-phenyl) -piperazin-1-yl] -2-methyl-3 - (3-trifluoromethyl-phenyl) -pentan-3-ol
- 1 - [4 - (3-chloro-phenyl) -piperazin-1-yl] -2-methyl-3 - (3-methyl-benzyl) -pentan-3-ol
- 15 3 - (4-chloro-benzyl) -1 - [4 - (3-chloro-phenyl) -piperazin-1-yl] -2-methyl-pentan-3-ol
- 3 - (2-chloro-6-fluoro-benzyl) -1 - [4 - (3-chloro-phenyl) -piperazin-1-yl] -2-methyl-pentan-3-ol
- 1 - [4 - (3-chloro-phenyl) -piperazin-1-yl] -3 - (2,5-
- 20 dimethyl-benzyl) -2-methyl-pentan-3-ol
- 3 - (3-chloro-benzyl) -1 - [4 - (3-chloro-phenyl) -piperazin-1-yl] -2-methyl-pentan-3-ol
- 1 - [4 - (3-chloro-phenyl) -piperazin-1-yl] -3 - (2,4-dichloro-benzyl) -2-methyl-pentan-3-ol
- 25 3-cyclohexylmethyl-2-methyl-1 - (4-methyl-piperazin-1-yl) -pentan-3-ol
- 3 - (5-fluoro-2-methoxy-phenyl) -2-methyl-1 - (4-methyl-piperazin-1-yl) -pentan-3-ol
- 3 - (3-fluoro-phenyl) -2-methyl-1 - (4-methyl-piperazin-1-
- 30 yl) -pentan-3-ol
- 3 - (3-chloro-phenyl) -2-methyl-1 - (4-methyl-piperazin-1-yl) -pentan-3-ol

WO 03/051369

PCT/EP02/13911

51

- 3-(3,5-dichloro-phenyl)-2-methyl-1-(4-methyl-piperazin-1-yl)-pentan-3-ol
- 3-(2-chloro-benzyl)-2-methyl-1-(4-methyl-piperazin-1-yl)-pentan-3-ol
- 5 3-(4-fluoro-benzyl)-2-methyl-1-(4-methyl-piperazin-1-yl)-pentan-3-ol
- 3-(3-methoxy-benzyl)-2-methyl-1-(4-methyl-piperazin-1-yl)-pentan-3-ol
- 10 3-(4-chloro-3-trifluoromethyl-phenyl)-2-methyl-1-(4-methyl-piperazin-1-yl)-pentan-3-ol
- 3-(3-fluoro-benzyl)-2-methyl-1-(4-methyl-piperazin-1-yl)-pentan-3-ol
- 3-(2-methoxy-phenyl)-2-methyl-1-(4-methyl-piperazin-1-yl)-pentan-3-ol
- 15 2-methyl-3-(2-methyl-benzyl)-1-(4-methyl-piperazin-1-yl)-pentan-3-ol
- 3-(3-chloro-4-fluoro-phenyl)-2-methyl-1-(4-methyl-piperazin-1-yl)-pentan-3-ol
- 2-methyl-1-(4-methyl-piperazin-1-yl)-3-(3-trifluoromethyl-phenyl)-pentan-3-ol
- 20 2-methyl-3-(3-methyl-benzyl)-1-(4-methyl-piperazin-1-yl)-pentan-3-ol
- 3-(4-chloro-benzyl)-2-methyl-1-(4-methyl-piperazin-1-yl)-pentan-3-ol
- 25 3-(2-chloro-6-fluoro-benzyl)-2-methyl-1-(4-methyl-piperazin-1-yl)-pentan-3-ol
- 3-(2,5-dimethyl-benzyl)-2-methyl-1-(4-methyl-piperazin-1-yl)-pentan-3-ol
- 3-(3-chloro-benzyl)-2-methyl-1-(4-methyl-piperazin-1-yl)-pentan-3-ol
- 30 3-(2,4-dichloro-benzyl)-2-methyl-1-(4-methyl-piperazin-1-yl)-pentan-3-ol

WO 03/051369

PCT/EP02/13911

52

- 1-cyclohexylmethyl-2-(4-methyl-piperazin-1-ylmethyl)-
cyclohexanol
- 1-(5-fluoro-2-methoxy-phenyl)-2-(4-methyl-piperazin-1-
ylmethyl)-cyclohexanol
- 5 1-(3-fluoro-phenyl)-2-(4-methyl-piperazin-1-ylmethyl)-
cyclohexanol
- 1-(3-chloro-phenyl)-2-(4-methyl-piperazin-1-ylmethyl)-
cyclohexanol
- 10 1-(3,5-dichloro-phenyl)-2-(4-methyl-piperazin-1-
ylmethyl)-cyclohexanol
- 1-(2-chloro-benzyl)-2-(4-methyl-piperazin-1-ylmethyl)-
cyclohexanol
- 1-(4-fluoro-benzyl)-2-(4-methyl-piperazin-1-ylmethyl)-
cyclohexanol
- 15 1-(3-methoxy-benzyl)-2-(4-methyl-piperazin-1-
ylmethyl)-cyclohexanol
- 1-(4-chloro-3-trifluoromethyl-phenyl)-2-(4-methyl-
piperazin-1-ylmethyl)-cyclohexanol
- 1-(3-fluoro-benzyl)-2-(4-methyl-piperazin-1-ylmethyl)-
20 cyclohexanol
- 1-(2-methoxy-phenyl)-2-(4-methyl-piperazin-1-
ylmethyl)-cyclohexanol
- 1-(2-methyl-benzyl)-2-(4-methyl-piperazin-1-ylmethyl)-
cyclohexanol
- 25 1-(3-chloro-4-fluoro-phenyl)-2-(4-methyl-piperazin-1-
ylmethyl)-cyclohexanol
- 2-(4-methyl-piperazin-1-ylmethyl)-1-(3-
trifluoromethyl-phenyl)-cyclohexanol
- 1-(3-methyl-benzyl)-2-(4-methyl-piperazin-1-ylmethyl)-
30 cyclohexanol
- 1-(4-chloro-benzyl)-2-(4-methyl-piperazin-1-ylmethyl)-
cyclohexanol

WO 03/051369

PCT/EP02/13911

53

- 1- (2,5-dimethyl-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -cyclohexanol
- 1- (3-chloro-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -cyclohexanol
- 5 1- (2,4-dichloro-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -cyclohexanol
- 1-cyclohexylmethyl-2- (4-methyl-piperazin-1-ylmethyl) -cyclooctanol
- 10 1- (5-fluoro-2-methoxy-phenyl) -2- (4-methyl-piperazin-1-ylmethyl) -cyclooctanol
- 1- (2-chloro-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -cyclooctanol
- 1- (4-fluoro-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -cyclooctanol
- 15 1- (3-fluoro-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -cyclooctanol
- 1- (2-methoxy-phenyl) -2- (4-methyl-piperazin-1-ylmethyl) -cyclooctanol
- 1- (3-methyl-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -cyclooctanol
- 20 1- (4-chloro-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -cyclooctanol
- 1- (2-chloro-6-fluoro-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -cyclooctanol
- 25 1- (2,5-dimethyl-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -cyclooctanol
- 1- (3-chloro-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -cyclooctanol
- 1- (2,4-dichloro-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -cyclooctanol
- 30 1-cyclohexylmethyl-2- (4-methyl-piperazin-1-ylmethyl) -cycloheptanol

WO 03/051369

PCT/EP02/13911

54

- 1- (5-fluoro-2-methoxy-phenyl) -2- (4-methyl-piperazin-1-ylmethyl) -cycloheptanol
- 1- (3-fluoro-phenyl) -2- (4-methyl-piperazin-1-ylmethyl) -cycloheptanol
- 5 1- (3-chloro-phenyl) -2- (4-methyl-piperazin-1-ylmethyl) -cycloheptanol
- 1- (3,5-dichloro-phenyl) -2- (4-methyl-piperazin-1-ylmethyl) -cycloheptanol
- 1- (2-chloro-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -cycloheptanol
- 10 1- (4-fluoro-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -cycloheptanol
- 1- (3-methoxy-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -cycloheptanol
- 15 1- (4-chloro-3-trifluoromethyl-phenyl) -2- (4-methyl-piperazin-1-ylmethyl) -cycloheptanol
- 1- (3-fluoro-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -cycloheptanol
- 1- (2-methoxy-phenyl) -2- (4-methyl-piperazin-1-ylmethyl) -cycloheptanol
- 20 1- (2-methyl-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -cycloheptanol
- 1- (3-chloro-4-fluoro-phenyl) -2- (4-methyl-piperazin-1-ylmethyl) -cycloheptanol
- 25 2- (4-methyl-piperazin-1-ylmethyl) -1- (3-trifluoromethyl-phenyl) -cycloheptanol
- 1- (3-methyl-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -cycloheptanol
- 1- (4-chloro-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -cycloheptanol
- 30 1- (2-chloro-6-fluoro-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -cycloheptanol

WO 03/051369

PCT/EP02/13911

55

- 1- (2,5-dimethyl-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -cycloheptanol
- 1- (3-chloro-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -cycloheptanol
- 5 1- (2,4-dichloro-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -cycloheptanol
- 1-benzyl-2- (4-methyl-piperazin-1-ylmethyl) -cyclododecanol
- 2- (4-methyl-piperazin-1-ylmethyl) -1-vinyl-cyclododecanol
- 10 1-cyclopentyl-2- (4-methyl-piperazin-1-ylmethyl) -cyclododecanol
- 2- (4-methyl-piperazin-1-ylmethyl) -1-phenethyl-cyclododecanol
- 15 2- (4-methyl-piperazin-1-ylmethyl) -1-phenylethynyl-cyclododecanol
- 2- (4-methyl-piperazin-1-ylmethyl) -1-thiophen-2-yl-cyclododecanol
- 2- (4-methyl-piperazin-1-ylmethyl) -1- (3-phenyl-propyl) -cyclododecanol
- 20 1- (5-fluoro-2-methoxy-phenyl) -2- (4-methyl-piperazin-1-ylmethyl) -cyclododecanol
- 1- (2-chloro-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -cyclododecanol
- 25 1- (4-fluoro-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -cyclododecanol
- 1- (3-methoxy-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -cyclododecanol
- 1- (3-fluoro-benzyl) -2- (4-methyl-piperazin-1-ylmethyl) -cyclododecanol
- 30 1- (2-methoxy-phenyl) -2- (4-methyl-piperazin-1-ylmethyl) -cyclododecanol

WO 03/051369

PCT/EP02/13911

56

- 1 - (2-methyl-benzyl) - 2 - (4-methyl-piperazin-1-ylmethyl) -
cyclododecanol
- 1 - (3-methyl-benzyl) - 2 - (4-methyl-piperazin-1-ylmethyl) -
cyclododecanol
- 5 1 - (4-chloro-benzyl) - 2 - (4-methyl-piperazin-1-ylmethyl) -
cyclododecanol
- 1 - (2,5-dimethyl-benzyl) - 2 - (4-methyl-piperazin-1-
ylmethyl) - cyclododecanol
- 10 1 - (3-chloro-benzyl) - 2 - (4-methyl-piperazin-1-ylmethyl) -
cyclododecanol
- 1 - (2,4-dichloro-benzyl) - 2 - (4-methyl-piperazin-1-
ylmethyl) - cyclododecanol
- 2 - [4 - (3-chloro-phenyl) - piperazin-1-ylmethyl] - 1 -
cyclohexylmethyl - cyclohexanol
- 15 2 - [4 - (3-chloro-phenyl) - piperazin-1-ylmethyl] - 1 - (5-
fluoro-2-methoxy-phenyl) - cyclohexanol
- 2 - [4 - (3-chloro-phenyl) - piperazin-1-ylmethyl] - 1 - (3-
fluoro-phenyl) - cyclohexanol
- 1 - (3-chloro-phenyl) - 2 - [4 - (3-chloro-phenyl) - piperazin-
20 1-ylmethyl] - cyclohexanol
- 2 - [4 - (3-chloro-phenyl) - piperazin-1-ylmethyl] - 1 - (3,5-
dichloro-phenyl) - cyclohexanol
- 1 - (2-chloro-benzyl) - 2 - [4 - (3-chloro-phenyl) - piperazin-
1-ylmethyl] - cyclohexanol
- 25 2 - [4 - (3-chloro-phenyl) - piperazin-1-ylmethyl] - 1 - (4-
fluoro-benzyl) - cyclohexanol
- 2 - [4 - (3-chloro-phenyl) - piperazin-1-ylmethyl] - 1 - (4-
chloro-3-trifluoromethylphenyl) - cyclohexanol
- 2 - [4 - (3-chloro-phenyl) - piperazin-1-ylmethyl] - 1 - (3-
30 fluoro-benzyl) - cyclohexanol
- 2 - [4 - (3-chloro-phenyl) - piperazin-1-ylmethyl] - 1 - (2-
methoxy-phenyl) - cyclohexanol

WO 03/051369

PCT/EP02/13911

57

- 1 - (3-chloro-4-fluoro-phenyl) - 2 - [4 - (3-chloro-phenyl) -
piperazin-1-ylmethyl] - cyclohexanol
- 2 - [4 - (3-chloro-phenyl) - piperazin-1-ylmethyl] - 1 - (3-
trifluoromethyl-phenyl) - cyclohexanol
- 5 2 - [4 - (3-chloro-phenyl) - piperazin-1-ylmethyl] - 1 - (3-
methyl-benzyl) - cyclohexanol
- 1 - (4-chloro-benzyl) - 2 - [4 - (3-chloro-phenyl) - piperazin-
1-ylmethyl] - cyclohexanol
- 10 1 - (2-chloro-6-fluoro-benzyl) - 2 - [4 - (3-chloro-phenyl) -
piperazin-1-ylmethyl] - cyclohexanol
- 2 - [4 - (3-chloro-phenyl) - piperazin-1-ylmethyl] - 1 - (2,5-
dimethyl-benzyl) - cyclohexanol
- 1 - (3-chloro-benzyl) - 2 - [4 - (3-chloro-phenyl) - piperazin-
1-ylmethyl] - cyclohexanol
- 15 2 - [4 - (2-chloro-phenyl) - piperazin-1-ylmethyl] - 1-phenyl-
cyclohexanol
- 1 - (4-chloro-phenyl) - 2 - [4 - (2-chloro-phenyl) - piperazin-
1-ylmethyl] - cyclohexanol
- 1-benzyl-2 - [4 - (2-chloro-phenyl) - piperazin-1-ylmethyl] -
20 cyclohexanol
- 2 - [4 - (2-chloro-phenyl) - piperazin-1-ylmethyl] - 1 - (4-
fluoro-3-methyl-phenyl) - cyclohexanol
- 2 - [4 - (2-chloro-phenyl) - piperazin-1-ylmethyl] - 1-o-
tolyl-cyclohexanol
- 25 2 - [4 - (2-chloro-phenyl) - piperazin-1-ylmethyl] - 1-vinyl-
cyclohexanol
- 1 - (4-tert-butyl-phenyl) - 2 - [4 - (2-chloro-phenyl) -
piperazin-1-ylmethyl] - cyclohexanol
- 2 - [4 - (2-chloro-phenyl) - piperazin-1-ylmethyl] - 1-
30 cyclopentyl-cyclohexanol
- 2 - [4 - (2-chloro-phenyl) - piperazin-1-ylmethyl] - 1-m-
tolyl-cyclohexanol

WO 03/051369

PCT/EP02/13911

58

- 2-[4-(2-chloro-phenyl)-piperazin-1-ylmethyl]-
bicyclohexyl-1-ol
- 2-[4-(2-chloro-phenyl)-piperazin-1-ylmethyl]-1-(4-
fluoro-phenyl)-cyclohexanol
- 5 2-[4-(2-chloro-phenyl)-piperazin-1-ylmethyl]-1-
phenethyl-cyclohexanol
- 2-[4-(2-chloro-phenyl)-piperazin-1-ylmethyl]-1-
phenylethynyl-cyclohexanol
- 10 2-[4-(2-chloro-phenyl)-piperazin-1-ylmethyl]-1-
thiophen-2-yl-cyclohexanol
- 2-[4-(2-chloro-phenyl)-piperazin-1-ylmethyl]-1-(3-
methoxy-phenyl)-cyclohexanol
- 2-[4-(2-chloro-phenyl)-piperazin-1-ylmethyl]-1-(3-
phenyl-propyl)-cyclohexanol
- 15 2-[4-(2-chloro-phenyl)-piperazin-1-ylmethyl]-1-p-
tolyl-cyclohexanol
- 2-[4-(2-chloro-phenyl)-piperazin-1-ylmethyl]-1-(4-
methoxy-phenyl)-cyclohexanol
- 2-[4-(2-chloro-phenyl)-piperazin-1-ylmethyl]-1-
20 cyclohexylmethyl-cyclohexanol
- 2-[4-(2-chloro-phenyl)-piperazin-1-ylmethyl]-1-(5-
fluoro-2-methoxy-phenyl)-cyclohexanol
- 1-(3-chloro-phenyl)-2-[4-(2-chloro-phenyl)-piperazin-
1-ylmethyl]-cyclohexanol
- 25 2-[4-(2-chloro-phenyl)-piperazin-1-ylmethyl]-1-(3,5-
dichloro-phenyl)-cyclohexanol
- 1-(2-chloro-benzyl)-2-[4-(2-chloro-phenyl)-piperazin-
1-ylmethyl]-cyclohexanol
- 2-[4-(2-chloro-phenyl)-piperazin-1-ylmethyl]-1-(4-
30 fluoro-benzyl)-cyclohexanol
- 2-[4-(2-chloro-phenyl)-piperazin-1-ylmethyl]-1-(3-
methoxy-benzyl)-cyclohexanol

WO 03/051369

PCT/EP02/13911

59

- 2-[4-(2-chloro-phenyl)-piperazin-1-ylmethyl]-1-(4-chloro-3-trifluoromethyl-phenyl)-cyclohexanol
- 2-[4-(2-chloro-phenyl)-piperazin-1-ylmethyl]-1-(3-fluoro-benzyl)-cyclohexanol
- 5 2-[4-(2-chloro-phenyl)-piperazin-1-ylmethyl]-1-(2-methoxy-phenyl)-cyclohexanol
- 2-[4-(2-chloro-phenyl)-piperazin-1-ylmethyl]-1-(2-methyl-benzyl)-cyclohexanol
- 10 1-(3-chloro-4-fluoro-phenyl)-2-[4-(2-chloro-phenyl)-piperazin-1-ylmethyl]-cyclohexanol
- 2-[4-(2-chloro-phenyl)-piperazin-1-ylmethyl]-1-(3-trifluoromethyl-phenyl)-cyclohexanol
- 2-[4-(2-chloro-phenyl)-piperazin-1-ylmethyl]-1-(3-methyl-benzyl)-cyclohexanol
- 15 1-(4-chloro-benzyl)-2-[4-(2-chloro-phenyl)-piperazin-1-ylmethyl]-cyclohexanol
- 1-(2-chloro-6-fluoro-benzyl)-2-[4-(2-chloro-phenyl)-piperazin-1-ylmethyl]-cyclohexanol
- 2-[4-(2-chloro-phenyl)-piperazin-1-ylmethyl]-1-(2,5-dimethyl-benzyl)-cyclohexanol
- 20 1-(3-chloro-benzyl)-2-[4-(2-chloro-phenyl)-piperazin-1-ylmethyl]-cyclohexanol
- 2-[4-(2-chloro-phenyl)-piperazin-1-ylmethyl]-1-(2,4-dichloro-benzyl)-cyclohexanol
- 25 2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-1-phenyl-cyclohexanol
- 1-(4-chloro-phenyl)-2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-cyclohexanol
- 1-benzyl-2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-cyclohexanol
- 30 1-(4-fluoro-3-methyl-phenyl)-2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-cyclohexanol

WO 03/051369

PCT/EP02/13911

60

- 2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-1-o-
tolyl-cyclohexanol
- 2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-1-vinyl-
cyclohexanol
- 5 1-(4-tert-butyl-phenyl)-2-[4-(2-methoxy-phenyl)-
piperazin-1-ylmethyl]-cyclohexanol
- 1-cyclopentyl-2-[4-(2-methoxy-phenyl)-piperazin-1-
ylmethyl]-cyclohexanol
- 2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-1-m-
10 tolyl-cyclohexanol
- 2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-
bicyclohexyl-1-ol
- 1-(4-fluoro-phenyl)-2-[4-(2-methoxy-phenyl)-piperazin-
1-ylmethyl]-cyclohexanol
- 15 2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-1-
phenethyl-cyclohexanol
- 2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-1-
phenylethynyl-cyclohexanol
- 2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-1-
20 thiophen-2-yl-cyclohexanol
- 1-(3-methoxy-phenyl)-2-[4-(2-methoxy-phenyl)-
piperazin-1-ylmethyl]-cyclohexanol
- 2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-1-(3-
phenyl-propyl)-cyclohexanol
- 25 1-(2,3-dichloro-phenyl)-2-[4-(2-methoxy-phenyl)-
piperazin-1-ylmethyl]-cyclohexanol
- 2-[4-(2-methoxy-phenyl)-piperazin-1-ylmethyl]-1-p-
tolyl-cyclohexanol
- 1-(4-methoxy-phenyl)-2-[4-(2-methoxy-phenyl)-
30 piperazin-1-ylmethyl]-cyclohexanol
- 1-cyclohexylmethyl-2-[4-(2-methoxy-phenyl)-piperazin-
1-ylmethyl]-cyclohexanol

WO 03/051369

PCT/EP02/13911

61

- 1 - (5-fluoro-2-methoxy-phenyl) -2 - [4 - (2-methoxy-phenyl) -
piperazin-1-ylmethyl] -cyclohexanol
- 1 - (3-fluoro-phenyl) -2 - [4 - (2-methoxy-phenyl) -piperazin-
1-ylmethyl] -cyclohexanol
- 5 1 - (3-chloro-phenyl) -2 - [4 - (2-methoxy-phenyl) -piperazin-
1-ylmethyl] -cyclohexanol
- 1 - (3,5-dichloro-phenyl) -2 - [4 - (2-methoxy-phenyl) -
piperazin-1-ylmethyl] -cyclohexanol
- 10 1 - (2-chloro-benzyl) -2 - [4 - (2-methoxy-phenyl) -piperazin-
1-ylmethyl] -cyclohexanol
- 1 - (4-fluoro-benzyl) -2 - [4 - (2-methoxy-phenyl) -piperazin-
1-ylmethyl] -cyclohexanol
- 1 - (3-methoxy-benzyl) -2 - [4 - (2-methoxy-phenyl) -
piperazin-1-ylmethyl] -cyclohexanol
- 15 1 - (4-chloro-3-trifluoromethyl-phenyl) -2 - [4 - (2-methoxy-
phenyl) -piperazin-1-ylmethyl] -cyclohexanol
- 1 - (3-fluoro-benzyl) -2 - [4 - (2-methoxy-phenyl) -piperazin-
1-ylmethyl] -cyclohexanol
- 1 - (2-methoxy-phenyl) -2 - [4 - (2-methoxy-phenyl) -
20 piperazin-1-ylmethyl] -cyclohexanol
- 2 - [4 - (2-methoxy-phenyl) -piperazin-1-ylmethyl] -1 - (2-
methyl-benzyl) -cyclohexanol
- 1 - (3-chloro-4-fluoro-phenyl) -2 - [4 - (2-methoxy-phenyl) -
piperazin-1-ylmethyl] -cyclohexanol
- 25 2 - [4 - (2-methoxy-phenyl) -piperazin-1-ylmethyl] -1 - (3-
trifluoromethyl-phenyl) -cyclohexanol
- 2 - [4 - (2-methoxy-phenyl) -piperazin-1-ylmethyl] -1 - (3-
methyl-benzyl) -cyclohexanol
- 1 - (4-chloro-benzyl) -2 - [4 - (2-methoxy-phenyl) -piperazin-
30 1-ylmethyl] -cyclohexanol
- 1 - (2-chloro-6-fluoro-benzyl) -2 - [4 - (2-methoxy-phenyl) -
piperazin-1-ylmethyl] -cyclohexanol

WO 03/051369

PCT/EP02/13911

62

- 1- (2,5-dimethyl-benzyl) -2- [4- (2-methoxy-phenyl) -
piperazin-1-ylmethyl] -cyclohexanol
1- (3-chloro-benzyl) -2- [4- (2-methoxy-phenyl) -piperazin-
1-ylmethyl] -cyclohexanol
5 1- (2,4-dichloro-benzyl) -2- [4- (2-methoxy-phenyl) -
piperazin-1-ylmethyl] -cyclohexanol
1-benzyl-2- [4- (2-methoxy-phenyl) -piperazin-1-
ylmethyl] -cyclododecanol
2- [4- (2-methoxy-phenyl) -piperazin-1-ylmethyl] -1-vinyl-
10 cyclododecanol
1-phenethyl-2- [phenyl- (4-phenyl-piperazin-1-yl) -
methyl] -cyclohexanol
1-benzyl-2- [(4-methyl-piperazin-1-yl) -phenyl-methyl] -
cyclohexanol
15 1-benzyl-2- [phenyl- (4-phenyl-piperazin-1-yl) -methyl] -
cyclohexanol
2- [(4-methyl-piperazin-1-yl) -phenyl-methyl] -1-
phenethyl-cyclohexanol
2- [4- (2-methoxy-phenyl) -piperazin-1-ylmethyl] -1-
20 phenethyl-cyclododecanol

in the form of the diastereomer, the enantiomer and a
mixture thereof - including the racemate - and in the
form of the corresponding base, the corresponding salt
25 and the corresponding solvate.

15. Medicaments according to one of claims 1-14 for
combating pain.
- 30 16. Medicaments according to claim 14 for combating
neuropathic, chronic and/or acute pain.

WO 03/051369

PCT/EP02/13911

63

17. Medicaments according to one of claims 1-14 for treatment of migraine.
18. Medicaments according to one of claims 1-14 for treatment of hyperalgesia.
19. Medicaments according to claim 18 for treatment of thermal and/or mechanical hyperalgesia.
20. Medicaments according to one of claims 1-14 for treatment of allodynia.
21. Medicaments according to claim 20 for treatment of mechanical and/or cold allodynia.
22. Medicaments according to one of claims 1-14 for treatment of inflammatory pain.
23. Medicaments according to one of claims 1-14 for treatment of postoperative pain.
24. Medicaments according to one of claims 1-14 for treatment of neurodegenerative diseases.
25. Medicaments according to claim 24 for treatment of Alzheimer's disease.
26. Medicaments according to claim 24 for treatment of Huntington's disease.
27. Medicaments according to claim 24 for treatment of Parkinson's disease.

WO 03/051369

PCT/EP02/13911

64

28. Medicaments according to one of claims 1-14 for treatment of epilepsy.
- 5 29. Medicaments according to one of claims 1-14 for treatment of psychiatric and/or neuropathological disorders.
- 10 30. Medicaments according to claim 29 for treatment of bipolar disorders.
31. Medicaments according to one of claims 1-14 for treatment of anxiety.
- 15 32. Medicaments according to one of claims 1-14 for treatment of panic attacks.
33. Medicaments according to one of claims 1-14 for treatment of mood swings.
- 20 34. Medicaments according to one of claims 1-14 for treatment of manic behaviour.
- 25 35. Medicaments according to one of claims 1-14 for treatment of depressions.
36. Medicaments according to one of claims 1-14 for treatment of manic-depressive behaviour.
- 30 37. Medicaments according to one of claims 1-14 for treatment of hot flushes.

WO 03/051369

PCT/EP02/13911

65

38. Medicaments according to one of claims 1-14 for treatment of symptoms in the postmenopause.
39. Medicaments according to one of claims 1-14 for treatment of amyotrophic lateral sclerosis (ALS).
40. Medicaments according to one of claims 1-14 for treatment of reflex sympathetic dystrophy (RSD).
41. Medicaments according to one of claims 1-14 for treatment of spastic paralysis.
42. Medicaments according to one of claims 1-14 for treatment of restless leg syndrome.
43. Medicaments according to one of claims 1-14 for treatment of acquired nystagmus.
44. Medicaments according to one of claims 1-14 for treatment of painful diabetic neuropathy.
45. Medicaments according to one of claims 1-14 for treatment of symptoms and/or pain caused by multiple sclerosis.
46. Medicaments according to one of claims 1-14 for treatment of symptoms and/or pain caused by Parkinson's disease.
47. Medicaments according to one of claims 1-14 for treatment of gastrointestinal damage.

WO 03/051369

PCT/EP02/13911

66

48. Medicaments according to one of claims 1-14 for treatment of erythromelalgic pain.
49. Medicaments according to one of claims 1-14 for treatment of postpoliomyelitic pain.
50. Medicaments according to one of claims 1-14 for treatment of trigeminal and/or postherpetic neuralgia.
51. Medicaments according to one of claims 1-14 for treatment of symptoms associated in particular with neuropathic pain, and/or other related indications.
52. Use of at least one compound according to one of claims 1-14 for the preparation of a medicament for treatment of pain.
53. Use of at least one compound according to one of claims 1-14 for the preparation of a medicament for treatment of epilepsy.
54. Use of at least one compound according to one of claims 1-14 for the preparation of a medicament for treatment of neuropathic, chronic and/or acute pain, for treatment of symptoms associated in particular with neuropathic pain, and/or other related indications, for treatment of migraine, hyperalgesia and/or allodynia, in particular thermal hyperalgesia, mechanical hyperalgesia, mechanical allodynia and/or cold allodynia, for treatment of inflammatory and/or postoperative pain, for treatment of neurodegenerative diseases, such as Alzheimer's disease, Huntington's

WO 03/051369

PCT/EP02/13911

67

disease and/or Parkinson's disease, for treatment of psychiatric and/or neuropathological disorders, such as bipolar disorders, anxiety, panic attacks, mood swings, manic behaviour, depressions and manic-
5 depressive behaviour, for treatment of hot flushes, symptoms in the postmenopause, amyotrophic lateral sclerosis (ALS), reflex sympathetic dystrophy (RSD), spastic paralysis, restless leg syndrome, acquired nystagmus and painful diabetic neuropathy, for
10 treatment of symptoms and/or pain caused by multiple sclerosis and/or Parkinson's disease, and for treatment of gastrointestinal damage, erythromelalgic and/or postpoliomyelitic pain and trigeminal and/or postherpetic neuralgia.

15

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