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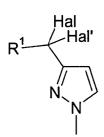
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(54) Title: PROCESSES FOR THE PREPARATION OF PYRAZOLES



(I) (57) Abstract: The present invention relates to novel processes for the production of compounds of formula (I) wherein Hal and Hal' are independently Cl or F, and R<sup>1</sup> is H, Cl or F.

#### INTERNATIONAL SEARCH REPORT

International application No PCT/EP2008/004830

A. CLASSIFICATION OF SUBJECT MATTER INV. C07D231/12 C07D2 C07D231/14 C07D231/16 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) CO7D 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) EPO-Internal, WPI Data, BEILSTEIN Data, EMBASE C. DOCUMENTS CONSIDERED TO BE RELEVANT Category\* Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. X WO 2005/042468 A (BAYER CROPSCIENCE AG 1 - 16[DE]; LANTZSCH REINHARD [DE]; JOERGES WOLFGANG [D) 12 May 2005 (2005-05-12) page 7; claim 5; examples 4,11,13; compound V X MANFRED SCHLOSSER, JEAN-NOËL VOLLE, 1 - 16FRÉDÉRIC LEROUX, KURT SCHENK: "Switchable Reactivity: The Site-Selective Functionalization of Trifluoromethyl-Substituted Pyrazoles" EUROPEAN JOURNAL OF ORGANIC CHEMISTRY. vol. 2002, no. 17, 2002, pages 2913-2920, XP002462801 page 2913, column 2; compound 2 -/--X Further documents are listed in the continuation of Box C. See patent family annex. Special categories of cited documents : \*T\* later document published after the international filing date or priority date and not in conflict with the application but \*A\* document defining the general state of the art which is not considered to be of particular relevance cited to understand the principle or theory underlying the invention \*E\* earlier document but published on or after the international \*X\* document of particular relevance; the claimed invention filing date 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 "Y" document of particular relevance: the claimed, invention. citation or other special reason (as specified) cannot be considered to involve an inventive step when the document is combined with one or more other such docu-"O" document referring to an oral disclosure, use, exhibition or ments, such combination being obvious to a person skilled \*P\* document published prior to the international filing date but later than the priority date claimed in the art \*&\* document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 6 October 2008 15/06/2009 Name and mailing address of the ISA/ **Authorized officer** European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016 Moriggi, J

### **INTERNATIONAL SEARCH REPORT**

International application No
PCT/EP2008/004830

		PCT/EP2008/004830					
C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT							
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.					
Y	PAVLIK J W ET AL: "Condensation of methylhydrazine with 4-ethoxy-1,1,1-trifluoro-3-buten 2-one. A reinvestigation" JOURNAL OF HETEROCYCLIC CHEMISTRY 200209 US, vol. 39, no. 5, September 2002 (2002-09), pages 1025-1027, XP002498427 ISSN: 0022-152X figures 1,3; compounds 1,2,6	1,6-9, 15,16					
Y	COLLA A ET AL: "TRIHALOACETYLATED ENOL ETHERS - GENERAL SYNTHETIC PROCEDURE AND HETEROCYCLIC RING CLOSURE REACTIONS WITH HYDROXYLAMINE" SYNTHESIS, GEORG THIEME VERLAG, STUTTGART, DE, 1 June 1991 (1991-06-01), pages 483-486, XP000196317 ISSN: 0039-7881 figure 1; compounds 1-5	1,6-9, 15,16					

International application No. PCT/EP2008/004830

## **INTERNATIONAL SEARCH REPORT**

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 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:
Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
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 No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)
This International Searching Authority found multiple inventions in this international application, as follows:
see additional sheet
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 fees, this Authority did not invite payment of additional fees.
3. As only some of the required additional search fees were timely paid by the applicant, this international search reportcovers 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.:
15, 16, 1(part), 6(part)-9(part)
Remark on Protest  The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
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: 15,16, 1(part), 6(part)-9(part)

the process for the preparation of a compound of formula (I); the specific compounds of formulae (VII) and (VIII)

2. claims: 2-5, 14, 1(part), 6(part)-9(part)

the process for the preparation of a compound of formula (VI) by reacting compounds of formulae (II), (III), (IV), (I), and (V); the synthetic intermediate of formula (X)

3. claims: 10, 12(part), 13(part)

the process for the preparation of a compound of formula (VI) by reacting compounds of formulae (XXIV)

4. claims: 11, 12(part), 13(part)

the process for the preparation of a compound of formula (VI) by reacting compounds of formula (XXV)

### INTERNATIONAL SEARCH REPORT

information on patent family members

International application No
PCT/EP2008/004830

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
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