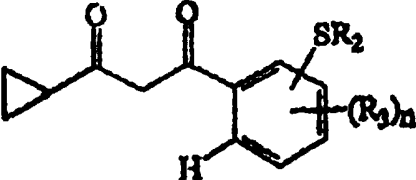




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<p>(51) International Patent Classification ⁶ : C07C 323/22, 319/20, 319/14, 201/12 // C07D 261/08</p>	A3	<p>(11) International Publication Number: WO 97/28122 (43) International Publication Date: 7 August 1997 (07.08.97)</p>
<p>(21) International Application Number: PCT/EP97/00370 (22) International Filing Date: 28 January 1997 (28.01.97) (30) Priority Data: 96300718.2 1 February 1996 (01.02.96) EP (34) Countries for which the regional or international application was filed: GB et al. (71) Applicant (for all designated States except US): RHONE-POULENC AGROCHIMIE [FR/FR]; 14-20, rue Pierre-Baizet, F-69009 Lyon Cédex 9 (FR). (72) Inventors; and (75) Inventors/Applicants (for US only): PEVERE, Virginie [FR/FR]; 14, Petite-Rue de Montplaisir, F-69008 Lyon (FR). GADRAS, Alain [FR/FR]; 208, rue de Saint-Cyr, F-69009 Lyon (FR). CRAMP, Susan, Mary [GB/GB]; Fyfield Road, Ongar, Essex CM5 0HW (GB). ELLWOOD, Charles, Walter [GB/GB]; Fyfield Road, Ongar, Essex CM5 0HW (GB). (74) Agent: BRACHOTTE, Charles, Yves; Rhône-Poulenc Agrochimie, Boîte postale 9163, F-69263 Lyon Cédex 09 (FR).</p>		<p>(81) Designated States: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HU, IL, IS, JP, KP, KR, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, US, UZ, VN, ARIPO patent (KE, LS, MW, SD, SZ, UG), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).</p> <p>Published With international search report.</p> <p>(88) Date of publication of the international search report: 2 October 1997 (02.10.97)</p>
<p>(54) Title: PROCESS FOR PREPARING DIKETONE COMPOUNDS</p>		
<div style="display: flex; align-items: center; justify-content: center;">  <div style="margin-left: 20px;"> <p>(I)</p> </div> <div style="margin-left: 100px;"> <p>-(CR₅R₆)_q-SR₂</p> </div> <div style="margin-left: 20px;"> <p>(II)</p> </div> </div>		
<p>(57) Abstract</p> <p>The invention relates to a process for preparing compounds of formula (I), wherein R₂ is lower alkyl; or phenyl optionally substituted by from one to five groups which may be the same or different selected from lower alkyl, lower haloalkyl, halogen and -SR₄; R₃ is halogen, lower alkyl, lower haloalkyl, lower alkoxy, lower haloalkoxy, -S-alkyl, cycloalkyl having from 3 to 7 carbon atoms in the ring, alkenyl or alkynyl having from 3 to 7 carbon atoms, or -(CR₅R₆)_q-SR₂ wherein q is one or two; R₄ is lower alkyl; R₅ and R₆ independently represent hydrogen, lower alkyl or lower haloalkyl; and n is zero or an integer from one to three; to intermediate compounds used in preparing compounds of formula (II), and processes for preparing such compounds.</p>		

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INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP 97/00370

A. CLASSIFICATION OF SUBJECT MATTER IPC 6 C07C323/22 C07C319/20 C07C319/14 C07C201/12 //C07D261/08				
According to International Patent Classification (IPC) or to both national classification and IPC				
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) IPC 6 C07D C07C C07B				
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched				
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C. DOCUMENTS CONSIDERED TO BE RELEVANT				
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.		
X	DE 24 41 498 A (AMERICAN CYANAMID CO) 27 March 1975 see page 1, line 6 - page 2, line 16, in particular, page 2, line 10; page 2, line 21 - page 3, line 19; page 13, lines 21-26	1-3		
Y	see page 13, lines 17-26	1-3,13, 14		
Y	--- EP 0 560 482 A (RHONE-POULENC AGRICULTURE LTD) 15 September 1993 cited in the application see reference examples 2-3 and page 13, table, entry 1 --- -/--	1-3,13, 14		
<input checked="" type="checkbox"/> Further documents are listed in the continuation of box C. <input checked="" type="checkbox"/> Patent family members are listed in annex.				
* Special categories of cited documents :				
<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none; vertical-align: top;"> "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed </td> <td style="width: 50%; border: none; vertical-align: top;"> "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "&" document member of the same patent family </td> </tr> </table>			"A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "&" document member of the same patent family
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Date of the actual completion of the international search <div style="text-align: center; font-size: 1.2em;">16 May 1997</div>	Date of mailing of the international search report <div style="text-align: center; font-size: 1.2em;">0 1. 08. 97</div>			
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax (+31-70) 340-3016	Authorized officer <div style="text-align: center; font-size: 1.2em;">Van Amsterdam, L</div>			

INTERNATIONAL SEARCH REPORT

Internat. Application No

PCT/EP 97/00370

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	SULFUR LETT., vol. 12, no. 3, 1991, pages 123-132, XP000196134 I.A. ALIEV ET AL: see page 125, table 1, compounds 1-7; page 126, compounds 11-12 ---	13
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
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Internat. Application No
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 580 439 A (RHONE-POULENC AGRICULTURE LTD) 26 January 1994 see reference example 2 -----	1

INTERNATIONAL SEARCH REPORT

International application No.

PCT/EP 97/00370

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

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

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

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

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

- 1 - Claims 1-4, 13, 14
- 2 - Claims 5-9, 10-12

1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Claims 1-4, 13, 14

Remark on Protest

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

INTERNATIONAL SEARCH REPORT

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