

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
28 October 2004 (28.10.2004)

PCT

(10) International Publication Number  
WO 2004/092106 A3

(51) International Patent Classification<sup>7</sup>: C07C 41/26,  
67/42, C07D 317/64, 319/18, C07C 43/23, 43/295, 69/017

(21) International Application Number:  
PCT/EP2004/050470

(22) International Filing Date: 7 April 2004 (07.04.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
MI2003A000823 18 April 2003 (18.04.2003) IT

(71) Applicant (for all designated States except US): EN-  
DURA S.P.A. [IT/IT]; Viale Pietramellara 5, I-40121  
Bologna (IT).

(72) Inventors; and

(75) Inventors/Applicants (for US only): BORZATTA, Vale-  
rio [IT/IT]; Via Bellettini 20, I-40127 Bologna (IT). PIC-  
COLO, Oreste [IT/IT]; Via Bornò 5, I-23896 Sirtori (IT).  
CAPPARELLA, Elisa [IT/IT]; Via Santucci 17, I-48100  
Ravenna (IT). POLUZZI, Elisa [IT/IT]; Via Fioravanti 42,  
I-40129 Bologna (IT).

(74) Agent: GERVASI, Gemma; Notarbartolo & Gervasi  
S.p.A., Corso di Porta Vittoria 9, I-20122 Milan (IT).

(81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,  
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,  
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,  
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,  
ZW.

(84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),  
Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), Euro-  
pean (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR,  
GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK,  
TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,  
ML, MR, NE, SN, TD, TG).

**Declaration under Rule 4.17:**

— of inventorship (Rule 4.17(iv)) for US only

**Published:**

— with international search report  
— before the expiration of the time limit for amending the  
claims and to be republished in the event of receipt of  
amendments

(88) Date of publication of the international search report:

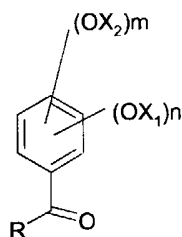
9 December 2004

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

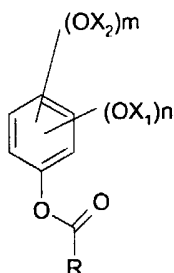


WO 2004/092106 A3

(54) Title: PROCESS FOR PREPARING ALKOXY- AND ARYLOXY-PHENOLS



(I)



(II)

(57) Abstract: Process for preparing alkoxy- and aryloxy-phenols, comprising oxidizing the ketone of formula (I) with peracids to give the corresponding ester of formula (II) which is then hydrolysed to give the corresponding aryloxy- or alkoxy-phenol.

INTERNATIONAL SEARCH REPORT

International Application No  
PCT/EP2004/050470

**A. CLASSIFICATION OF SUBJECT MATTER**  
 IPC 7 C07C41/26 C07C67/42 C07D317/64 C07D319/18 C07C43/23  
 C07C43/295 C07C69/017

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

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
 IPC 7 C07C C07D

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, PAJ, BEILSTEIN Data

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 99/10310 A (DOW CHEMICAL CO) 4 March 1999 (1999-03-04) page 5, line 16 - page 6, line 18 page 9, line 1 - line 17 page 12, line 5 - page 13, line 11 -----	1-41
Y	HAWTHORNE M. F. ET AL.: "A Re-examination of the Peroxyacid Cleavage of Ketones. I. Relative Migratory Aptitudes" J. AM. CHEM. SOC., vol. 80, 1958, pages 6393-6398, XP002296180 Tables I and II ----- -/--	1-41

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

° Special categories of cited documents :

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

Date of the actual completion of the international search <b>15 September 2004</b>	Date of mailing of the international search report <b>13/10/2004</b>
---	---

Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer <b>Mercey, J</b>
--	--

## INTERNATIONAL SEARCH REPORT

International Application No  
PCT/EP2004/050470

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	MARTIN H.J. ET AL.: "Synthesis of the C1-C13 Fragment of Kendomycin: Atropisomerism around a C-Aryl Glycosidic Bond" ANGEW. CHEM. INT. ED., vol. 40, no. 17, 2001, pages 3186-3188, XP002296181 Scheme 2: step b -----	1-41
A	FRIESS S. L.: "Reactions of Per Acids. I. The Reaction of Perbenzoic Acid with Some Simple Ketones" J. AM. CHEM. SOC., vol. 71, 1949, pages 14-15, XP002296276 cited in the application the whole document -----	1-41

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No  
PCT/EP2004/050470

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
WO 9910310	A	04-03-1999	AU	9124798 A		16-03-1999
			EP	1007501 A1		14-06-2000
			WO	9910310 A1		04-03-1999
-----						