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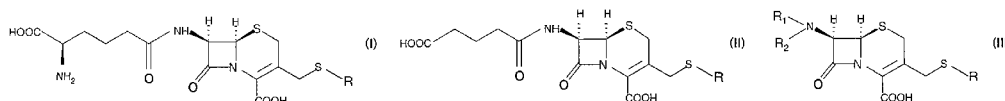
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(54) Title: A PROCESS FOR PREPARING CEPHALOSPORIN DERIVATIVES



(57) Abstract: An enzymatic process for preparing 3-thiolated 7-aminocephalosporanic acid derivatives comprises the steps of enzymatically converting a 3-thiolated cephalosporin C of the formula (I), to form a 3-thiolated-glutaryl-7-ACA of the formula (II) and enzymatically converting a compound of formula (II) to form a 3-thiolated-7-ACA of the formula (III) wherein R is a heterocyclic group comprising at least one nitrogen atom and R₁ And R₂ are both hydrogen atoms or one of them is a hydrogen atom and the other is an acyl donor.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

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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)

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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)

BEILSTEIN Data, EPO-Internal, BIOSIS, PAJ, WPI Data, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JUSTIZ OH ET AL: "One-pot chemoenzymatic synthesis of 3'-funcionalized cephalosporines (cefazolin) by three consecutive biotransformations in fully aqueous medium" JOURNAL OF ORGANIC CHEMISTRY, vol. 62, no. 26, 1997, pages 9099-9106, XP002177920 cited in the application schemes 4, 5 page 9103, right-hand column, last paragraph -page 9104, left-hand column, paragraph 2 page 9105, right-hand column, last paragraph --- -/--	1-23

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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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.
X	"The Merck Index on CD-ROM, Version 12:2" 1997, MERCK & CO INC., WHITEHOUSE STATION, NJ, USA XP002177921 Cefazolin (Entry 1967), Ceftriaxone (entry 2001), Cefotiam (entry 1985), Cefatrizine (entry 1965), Cefamandole (entry 1964), Cefoperazone (entry 1981), Cefazedone (entry 1966) ---	20
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X	page 3, line 13 - line 16; claim 1 claims 1,10 ---	20
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INTERNATIONAL SEARCH REPORT

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Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	CHEMICAL ABSTRACTS, vol. 80, no. 13, 1 April 1974 (1974-04-01) Columbus, Ohio, US; abstract no. 70820t, page 348; XP002207187 abstract & JP 48 075587 A (FUJISAWA PHARMACEUTICAL CO., LTD.) 11 October 1973 (1973-10-11) ---	39,40
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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