



US 20040067549A1

(19) **United States**(12) **Patent Application Publication****Sanchez-Ferrer et al.**(10) **Pub. No.: US 2004/0067549 A1**(43) **Pub. Date: Apr. 8, 2004**(54) **PROCESS FOR PREPARING
CEPHALOSPORIN DERIVATIVES**(75) Inventors: **Alvaro Sanchez-Ferrer**, Murcia (ES);
Jose Aniceto Lopez-Mas, Alicante
(ES); **Francisco Garcia-Carmona**,
Murcia (ES)

Correspondence Address:

JACOBSON HOLMAN PLLC**400 SEVENTH STREET N.W.****SUITE 600****WASHINGTON, DC 20004 (US)**(73) Assignee: **Bioferma Murcia S.A.**(21) Appl. No.: **10/669,379**(22) Filed: **Sep. 25, 2003****Related U.S. Application Data**(62) Division of application No. 10/125,554, filed on Apr.
19, 2002, now Pat. No. 6,642,020.(30) **Foreign Application Priority Data**

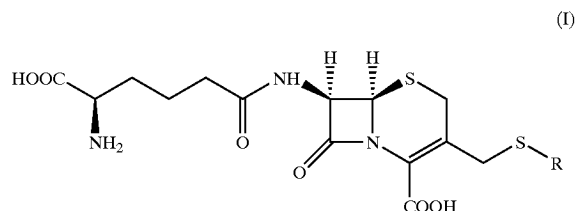
Apr. 19, 2001	(EP)	EP01201426.2
May 9, 2001	(EP)	EP01201699.4
May 9, 2001	(EP)	EP01201718.2
Nov. 30, 2001	(IE)	IE2001/1024
Nov. 30, 2001	(IE)	IE2001/1025

Publication Classification

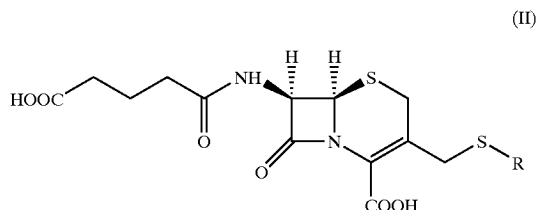
(51)	Int. Cl. ⁷	C12P 35/02
(52)	U.S. Cl.	435/51

(57) **ABSTRACT**

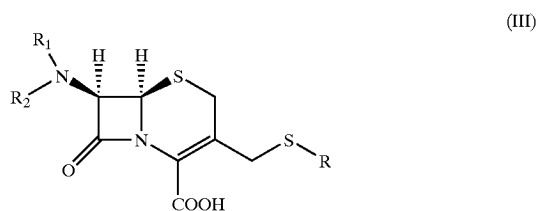
An enzymatic process for preparing 3-thiolated 7-aminocephalosporanic acid derivatives comprises the steps of enzymatically converting a 3-thiolated cephalosporin C of the formula I:



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.