



US 20030104515A1

(19) United States

(12) Patent Application Publication

Sanchez-Ferrer et al.

(10) Pub. No.: US 2003/0104515 A1

(43) Pub. Date: Jun. 5, 2003

(54) "PROCESS FOR PREPARING
CEPHALOSPORANIC ACID DERIVATIVES
USING ALPHA-KETOACID DERIVATIVES"(76) Inventors: Alvaro Sanchez-Ferrer, Murcia (ES);
Jose Aniceto Lopez-Mas, Alicante (ES); Francisco Garcia-Carmona,
Murcia (ES)

Correspondence Address:
JACOBSON HOLMAN
Professional Limited Liability Company
400 Seventh Street, N. W.
Washington, DC 20004 (US)

(21) Appl. No.: 10/125,458

(22) Filed: Apr. 19, 2002

(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

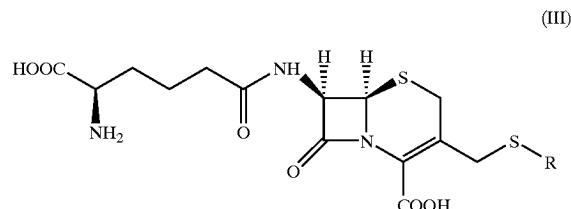
Publication Classification

(51) Int. Cl.⁷ C12P 35/00; C07D 501/14
(52) U.S. Cl. 435/47; 540/222

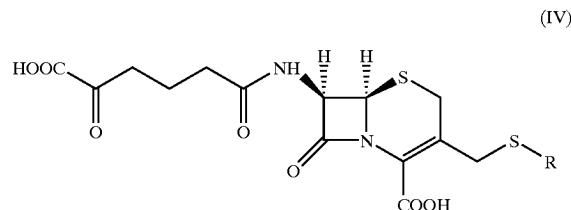
(57)

ABSTRACT

A process for preparing cephalosporanic acid derivatives comprises the steps of enzymatically converting a 3-thiolated cephalosporin C compound of formula III:



into a 3-thiolated- α -ketoadipyl-7-aminocephalosporanic acid derivative of formula IV:



wherein R is a heterocyclic group comprising at least a nitrogen atom.

Compounds of formula IV are used in the preparation of cephalosporin C antibiotics and derivatives thereof.