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(54) Title: PROCESS FOR THE PREPARATION OF INTERMEDIATES USEFUL IN THE SYNTHESIS OF CEPHALOSPORINS

(57) Abstract

A process is described for preparing 3-exomethylene cephalosporanic acid derivatives for use in the synthesis of cephalosporin antibiotics such as ceftibuten. The process comprises electrochemical reduction of a compound of formula (IV), wherein: R³ is CH₃C(O)-; a is an optional sulfoxide group; n is 2 or 3; R¹ is H and R is H or NHR², where R² is H or a protecting group selected from C₆H₅CH₂OC(O)-, C₆H₅C(O)- or C₁-C₆ alkoxy-C(O)-; or wherein R and R¹ together with the carbon atom to which they are attached comprise -C(O)-, and produces the desired 3-exomethylene compounds with low levels of the corresponding 3-methyl tautomers.

