



PCT

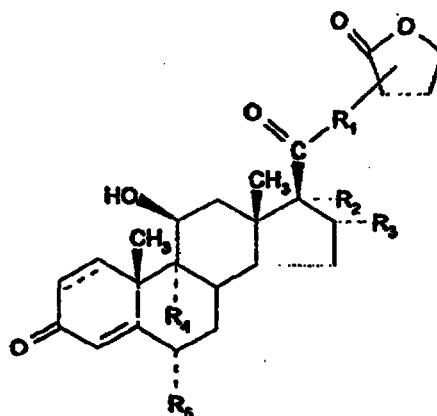
WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

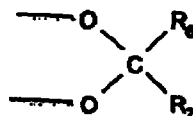
(51) International Patent Classification ⁶ : C07J 3/00, 31/00, 41/00, 17/00, A61K 31/56		A1	(11) International Publication Number: WO 97/24365
			(43) International Publication Date: 10 July 1997 (10.07.97)
(21) International Application Number: PCT/GB96/03140		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, ARIPO patent (KE, LS, MW, SD, SZ, UG), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).	
(22) International Filing Date: 19 December 1996 (19.12.96)		Published With international search report.	
(30) Priority Data: 9526651.6 29 December 1995 (29.12.95) GB 9613121.4 21 June 1996 (21.06.96) GB			
(71) Applicant (for all designated States except US): GLAXO GROUP LIMITED [GB/GB]; Glaxo Wellcome House, Berkeley Avenue, Greenford, Middlesex UB6 0NN (GB).			
(72) Inventors; and (75) Inventors/Applicants (for US only): BIGGADIKE, Keith [GB/GB]; Glaxo Wellcome plc, Gunnels Wood Road, Stevenage, Hertfordshire SG1 2NY (GB). PROCOPIOU, Panayiotis, Alexandrou [GB/GB]; Glaxo Wellcome plc, Gunnels Wood Road, Stevenage, Hertfordshire SG1 2NY (GB).			
(74) Agent: HACKETT, Ruth, E.; Glaxo Wellcome plc, Glaxo Wellcome House, Berkeley Avenue, Greenford, Middlesex UB6 0NN (GB).			
(54) Title: LACTONE DERIVATIVES OF 17.BETA.-CARBOXY, CARBOTHIO AND AMIDE ANDROSTANE DERIVATIVES			

(57) Abstract

Compounds of the androstane series are described having general formula (I) and solvates thereof, in which R_1 represents O, S or NH; R_2 individually represents $OC(-O)C_{1-6}$ alkyl; R_3 individually represents hydrogen, methyl (which may be in either the α or β configuration) or methylene; or R_2 and R_3 together represent (a) wherein R_6 and R_7 are the same or different and each represents hydrogen or C_{1-6} alkyl; R_4 and R_5 are the same or different and each represents hydrogen or halogen; and (b) represents a single or a double bond. Compounds of formula (I) and their solvates have use in medicine as anti-inflammatory or anti-allergic agents.



(I)



(a)



(b)