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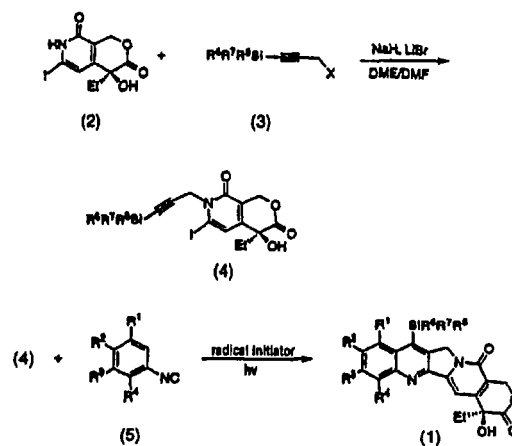
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(21) International Application Number: PCT/US99/29937 (22) International Filing Date: 15 December 1999 (15.12.99) (30) Priority Data: 09/212,178 15 December 1998 (15.12.98) US (71) Applicant: UNIVERSITY OF PITTSBURGH [US/US]; Cathedral of Learning, Pittsburgh, PA 15260 (US). (72) Inventors: CURRAN, Dennis, P.; 506 South Linden Avenue, Pittsburgh, PA 15208 (US). JOSIEN, Hubert; 5441 Washington Boulevard, Jersey City, NJ 07310 (US). BOM, David; 885 Mirror Street, Pittsburgh, PA 15217 (US). BURKE, Thomas, G.; 1227 Scoville Road, Lexington, KY 40502 (US). (74) Agent: BARTONY, Henry, E., Jr.; Bartony & Hare, Suite 1801, 429 Fourth Avenue, Pittsburgh, PA 15219 (US).		(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, 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, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published With international search report.

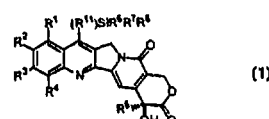
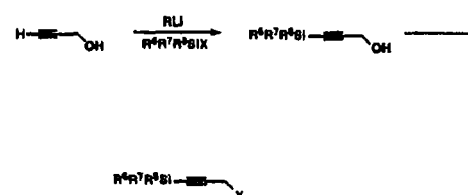
(54) Title: CAMPTOTHECIN ANALOGS AND METHODS OF PREPARATION THEREOF

(57) Abstract

A compound and a method of synthesizing a compound having general formula (1): wherein R^1 and R^2 are independently the same or different and are hydrogen, an alkyl group, an alkenyl group, a benzyl group, an alkynyl group, an alkoxy group, an aryloxy group, an acyloxy group, $-OC(O)OR^d$, wherein R^d is an alkyl group, a carbamoyloxy group, a halogen, a hydroxy group, a nitro group, a cyano group, an azido group, a formyl group, a hydrazino group, an acyl group, an amino group, $-SR^c$, wherein R^c is hydrogen, an acyl group, an alkyl group, or an aryl group, or R^1 and R^2 together form a group of the formula $-O(CH_2)_nO-$ wherein n represents the integer 1 or 2; R^3 is H, F, a halogen atom, a nitro group, an amino group, a hydroxy group, or a cyano group; or R^2 and R^3 together form a group of the formula $-O(CH_2)_nO-$ wherein n represents the integer 1 or 2; R^4 is H, a trialkylsilyl group, F, a C_{1-3} alkyl group, a C_{2-3} alkenyl group, a C_{2-3} alkynyl group, or a C_{1-3} alkoxy group; R^5 is a C_{1-10} alkyl group, an allyl group, a benzyl group or a propargyl group; and R^6 , R^7 and R^8 are independently a C_{1-10} alkyl group, a C_{2-10} alkenyl group, a C_{2-10} alkynyl group, an aryl group or a $-(CH_2)_N R^9$ group, wherein N is an integer within the range of 1 through 10 and R^9 is a hydroxy group, alkoxy group, an amino group, alkylamino group, a dialkylamino group, a halogen atom, a cyano group or a nitro group; and R^{11} is an alkylene group or an alkenylene group, and pharmaceutically acceptable salts thereof.



Synthesis of 3



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