

Title (en)
SEMI-SYNTHETIC ROUTE FOR THE PREPARATION OF PACLITAXEL, DOCETAXEL AND 10-DEACETYLBACCATIN III FROM 9-DIHYDRO-13-ACETYLBACCATIN III

Title (de)
HALBSYNTHETISCHE ROUTE ZUR HERSTELLUNG VON PACLITAXEL, DOCETAXEL UND 10-DEACETYLBACCATIN III AUS 9-DIHYDRO-13-ACETYLBACCATIN III

Title (fr)
VOIE SEMI-SYNTHÉTIQUE POUR LA PRÉPARATION DE PACLITAXEL, DOCÉTAXEL ET 10-DÉSACÉTYLBACCATINE III À PARTIR DE 9-DIHYDRO-13-ACÉTYLBACCATINE III

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Application
EP 07719967 A 20070612

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Abstract (en)
[origin: WO2007143839A1] A novel semi-synthetic route has been provided in the preparation of docetaxel and paclitaxel. This new process involves the conversion of 9-dihydro-13-acetylbaccatinIII to docetaxel and paclitaxel by the step of converting 9-dihydro-13-acetylbaccatin III into 7-O-triethylsilyl-9,10-diketobaccatin III, and adding docetaxel and paclitaxel side chain precursors, respectively, to form a new class of taxane intermediates, such as 7-O-triethylsilyl-9,10-diketodocetaxel and 7-O-triethylsilyl-9,10-diketopaclitaxeltaxel. These new intermediates then by a series reduction, acetylation of the 10-hydroxyl position for paclitaxel and finally deprotection to yield docetaxel and paclitaxel, the most important anti-cancer drugs.

IPC 8 full level
C07D 305/14 (2006.01); **C07F 7/18** (2006.01)

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C07D 305/14 (2013.01); **C07F 7/1804** (2013.01)

Citation (search report)
• [X] EP 0400971 A2 19901205 - UNIV FLORIDA STATE [US]
• [X] EP 0428376 A1 19910522 - UNIV FLORIDA STATE [US]
• [X] DENIS J-N: "A HIGHLY EFFICIENT, PRACTICAL APPROACH TO NATURAL TAXOL", JOURNAL OF THE AMERICAN CHEMICAL SOCIETY, vol. 110, no. 17, 1988, pages 5917 - 5920, XP000654163, ISSN: 0002-7863
• [X] APPENDINO G ET AL: "The Reductive Fragmentation of 7-Hydroxy-9,10-dioxotaxoids", EUROPEAN JOURNAL OF ORGANIC CHEMISTRY, WILEY-VCH VERLAG, WEINHEIM, DE, no. 22, 1 January 2003 (2003-01-01), pages 4422 - 4431, XP002486097, ISSN: 1434-193X
• See references of WO 2007143839A1

Citation (examination)
OJIMA I ET AL: "NEW AND EFFICIENT APPROACHES TO THE SEMISYNTHESIS OF TAXOL AND ITS C-13 SIDE CHAIN ANALOGS BY MEANS OF -LACTAM SYNTHON METHOD", TETRAHEDRON, ELSEVIER SCIENCE PUBLISHERS, AMSTERDAM, NL, vol. 48, no. 34, 21 August 1992 (1992-08-21), pages 6985 - 7012, XP000561212, ISSN: 0040-4020, DOI: 10.1016/S0040-4020(01)91210-4

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