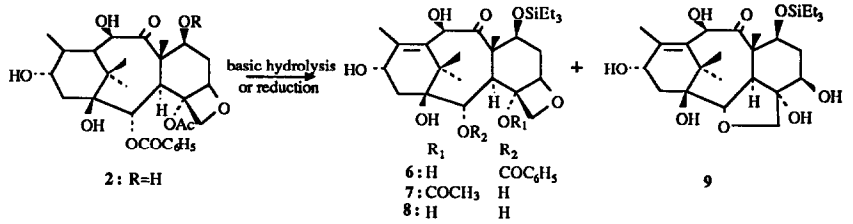
GRAPHICAL ABSTRACTS

Tetrahedron, **1992**, *48*, 6965

REARRANGEMENT REACTIONS OF TAXANES: STRUCTURAL MODIFICATIONS OF 10-DEACETYLBACCATIN III.

Anne Wahl, Françoise Guéritte-Voegelein*, Daniel Guénard, Marie-Thérèse Le Goff and Pierre Potier
Institut de Chimie des Substances Naturelles, C.N.R.S., 91198 Gif-sur-Yvette Cedex, France.

10-Deacetylbaccatin III **2**, isolated from the yew leaves of *Taxus baccata*, has been used to prepare new taxane-type compounds which could lead to taxol and taxotere® analogues.



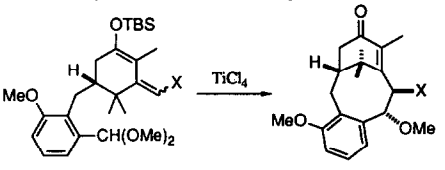
In acidic or electrophilic conditions, 7,10-"ditroc"-10-deacetylbaccatin III led to products with structural modifications on rings A and D (oxetan).

Tetrahedron, **1992**, *48*, 6975

Synthetic Studies on Taxane Carbon Framework. A Highly Efficient Eight-Membered Ring Cyclization with Complete Stereocontrol

Takashi Furukawa, Koichiro Morihira, Yoshiaki Horiguchi, and Isao Kuwajima*
Department of Chemistry, Tokyo Institute of Technology, Meguro, Tokyo 152, Japan

The C-aromatic taxane carbon skeletons have been constructed with control of stereochemistry and endo conformation via aldol-like 8-membered ring cyclization between dienol silyl ether and acetal moiety.

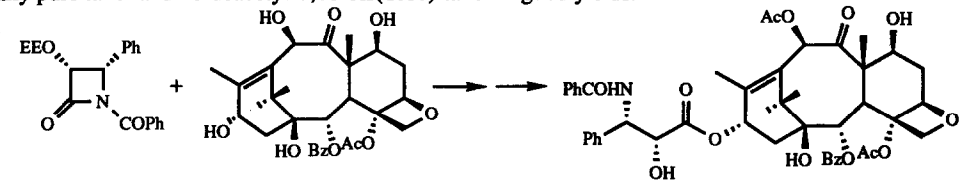


Tetrahedron, **1992**, *48*, 6985

NEW AND EFFICIENT APPROACHES TO THE SEMISYNTHESIS OF TAXOL AND ITS C-13 SIDE CHAIN ANALOGS BY MEANS OF β-LACTAM SYNTHON METHOD

I. Ojima*, I. Habus, M. Zhao, M. Zucco, Y. H. Park, C. M. Sun, and T. Brigaud
Department of Chemistry, State University of New York , Stony Brook, New York 11794-3400, U. S. A.

Highly efficient chiral ester enolate-imine condensation giving 3-hydroxy-4-aryl-β-lactams with excellent enantiomeric purity is successfully applied to the asymmetric synthesis of (3*R*,4*S*)-*N*-benzoyl-3-(1-ethoxyethoxy)-4-phenyl-2-azetidinone which is coupled with protected baccatin IIIs, followed by deprotection to give optically pure taxol and 10-deacetyl-7,10-bis(Troc)-taxol in good yields.

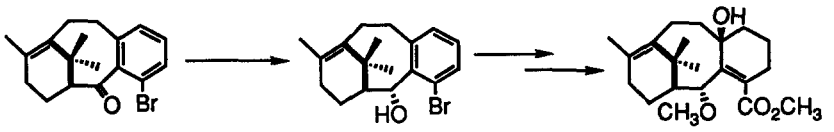


Tetrahedron, **1992**, *48*, 7013

THE CHEMISTRY OF C-AROMATIC TAXANE DERIVATIVES ATROPISOMER CONTROL OF REACTION STEREOCHEMISTRY

Randy W. Jackson, Richard G. Higby, Jeffrey W. Gilman and Kenneth J. Shea*
Department of Chemistry, University of California-Irvine, Irvine, CA 92717.

The atropselective synthesis of tricyclo [9.3.1.$0^{3,8}$] pentadecane ring systems is reported. Substrate conformation is utilized for the stereoselective elaboration of functionality on these ring systems. The conformational dynamics of intermediates are also reported.

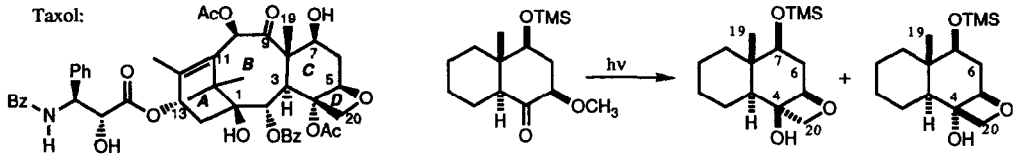


Tetrahedron, **1992**, *48*, 7033

Toward the Synthesis of the Taxol C,D Ring System: Photolysis of α-Methoxy Ketones

Paul A. Wender* and David B. Rawlins
Department of Chemistry, Stanford University, Stanford, CA 94305 U.S.A.

Model systems for the synthesis of the C and D rings of taxol are described, involving photolyses of α-methoxy ketones.

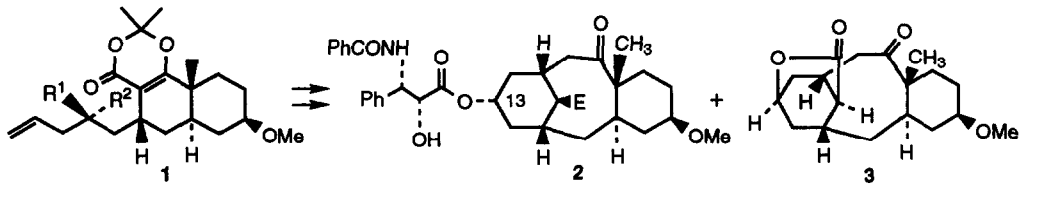


Tetrahedron, **1992**, *48*, 7049

STUDIES DIRECTED TOWARDS THE SYNTHESIS OF TAXOL: PREPARATION OF C-13 OXYGENATED TAXANE CONGENERS

Jeffrey D. Winkler* and Duvvuri Subrahmanyam
Department of Chemistry, University of Pennsylvania, Philadelphia, Pennsylvania 19104 USA

The application of the intramolecular dioxenone photocycloaddition to **1** (R^1, R^2 = H, OH) leads to the formation of the C-13 oxygenated taxane analog **2** along with lactone **3**.



1 **2** **3**