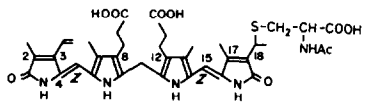
Tetrahedron Lett.29,3507(1988)

AMPLIFICATION OF OPTICAL ACTIVITY BY REMOTE CHIRAL FUNCTIONALITY. CIRCULAR DICHROISM OF BILIRUBIN *EXO*-VINYL N-ACETYL-L-CYSTEINE ADDUCTS

D.A. Lightner,* A.F. McDonagh, W.M.D. Wijekoon, and M. Reisinger.
Department of Chemistry, University of Nevada, Reno, NV 89557-0020.

The diastereomeric N-acetyl-L-cysteine adducts to the *exo*-vinyl group of (4Z,15Z)-bilirubin-IXα gave bisignate CD spectra characteristic of exciton coupling in folded, intramolecularly H-bonded conformations.



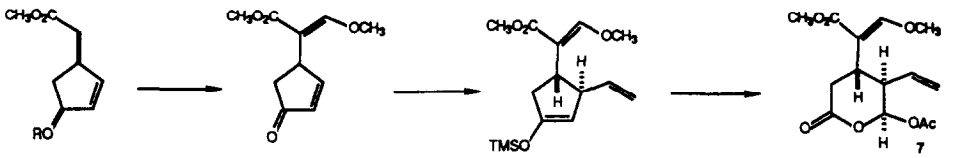
R_f 0.41 diastereomer: $\Delta\epsilon^{max}_{412}$ -49.6, $\Delta\epsilon^{max}_{465}$ +63.6 (DMSO)

R_f 0.35 diastereomer: $\Delta\epsilon^{max}_{413}$ +28.1, $\Delta\epsilon^{max}_{465}$ -42.7 (DMSO)

Tetrahedron Lett.29,3511(1988)

A SYNTHETIC APPROACH TO SECOLOGANIN: SYNTHESIS OF A PROTECTED FORM OF SECOXYLOGANIN AGLUCONE

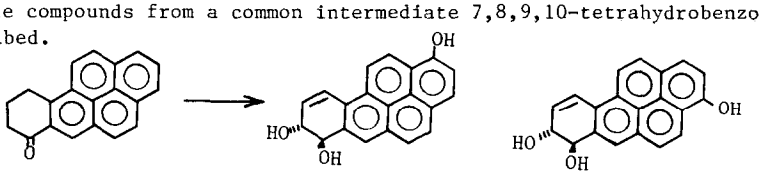
Peter T.W. Cheng and Stewart McLean
Department of Chemistry, University of Toronto, Toronto, Canada.



Tetrahedron Lett.29,3513(1988)

SYNTHESIS OF 1-HYDROXY- AND 3-HYDROXY-TRANS-7,8-DIHYDRO-7,8-DIHYDROXYBENZO(a)PYRENE. Subodh Kumar* and P.L. Kole
Great Lakes Laboratory, State University of New York College at Buffalo
1300 Elmwood Avenue, Buffalo, New York 14222.

A facile synthesis of title compounds from a common intermediate 7,8,9,10-tetrahydrobenzo(a) pyrene-7-one has been described.

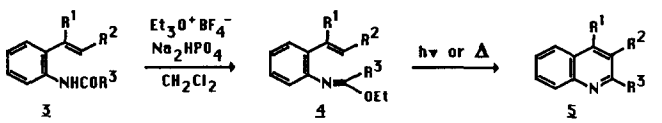


Tetrahedron Lett.29,3517(1988)

A CONVENIENT SYNTHESIS OF SUBSTITUTED QUINOLINES BY THERMAL OR PHOTOCHEMICAL ELECTROCYCLIC REARRANGEMENT OF o-VINYL IMIDATES UNDER NON-ACIDIC CONDITIONS.

Lin Guo Qiang and Neil H. Baine*, Synthetic Chemistry Department, SmithKline and French Laboratories, L-810, King of Prussia, PA 19406-2799

Abstract: Imidates **4** were prepared by treatment of amides **3** with Meerwein's reagent in the presence of excess disodium phosphate. These cleanly underwent rearrangement to quinolines **5** by thermal or photochemical activation.

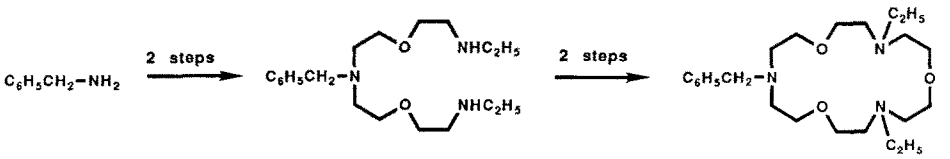


3 4 5

Tetrahedron Lett.29,3521(1988)

NOVEL AND CONVENIENT SYNTHESES OF N-ALKYL-SUBSTITUTED TRIAZA- AND TETRAAZA-CROWN COMPOUNDS

Krzysztof E. Krakowiak, Jerald S. Bradshaw* and Reed M. Izatt
Department of Chemistry, Brigham Young University
Provo, UT 84602 U.S.A.

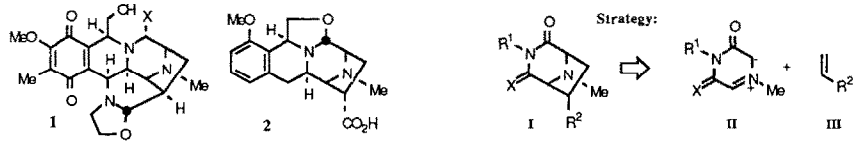


Tetrahedron Lett.29,3525(1988)

An Approach to the 3,8-Diazabicyclo[3.2.1]octane Moiety of Naphthyridinomycin and Quinocarcin via 1,3-Dipolar Cycloaddition of Photochemically Generated Azomethine Ylides.

Philip Garner*, K. Sunitha, and T. Shanthilal, Department of Chemistry, Case Western Reserve University, Cleveland, OH 44106-2699

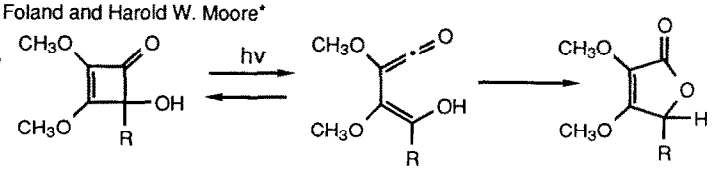
An attractive strategy for construction of the 3,8-diazabicyclo[3.2.1]octane moiety of targets **1** and **2** is presented.



Tetrahedron Lett.29,3529(1988)

PHOTOLYSIS OF 4-SUBSTITUTED-4-HYDROXY-3-CYCLOBUTEN-1--ONES: A NEW ROUTE TOBUTENOLIDES FROM 4-HYDROXY CYCLOBUTENONES

Steven T. Perri, Lafayette D. Foland and Harold W. Moore*
Department of Chemistry
University of California, Irvine
Irvine, California 92717



Tetrahedron Lett.29,3533(1988)

A NEW AND EFFICIENT REACTION FOR THE SYNTHESIS OF THE CARBON-CARBON BOND

Derek H.R. Barton, Nubar Ozbalik and Manian Ramesh

Department of Chemistry, Texas A&M University, College Station, Texas 77843, USA

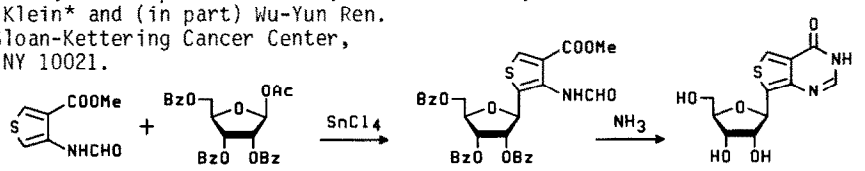
$$R^1\text{-Te-}R^2 \xrightarrow{Pd(OAc)_2,\ Et_3N} R^1\text{-}R^2$$

R^1, R^2=aliphatic or aromatic >76-89%

Tetrahedron Lett.29,3537(1988)

C-GLYCOSYLATION OF SUBSTITUTED HETEROCYCLES UNDER FRIEDEL-CRAFTS CONDITIONS (I): A TWO-STEP SYNTHESIS OF THE THIENO[3,4-d]PYRIMIDINE C-NUCLEOSIDE ANALOG OF INOSINE

Sunkada P. Rao, Kambhampati V. B. Rao, Brian A. Otter, Robert S. Klein* and (in part) Wu-Yun Ren.
Memorial Sloan-Kettering Cancer Center, New York, NY 10021.

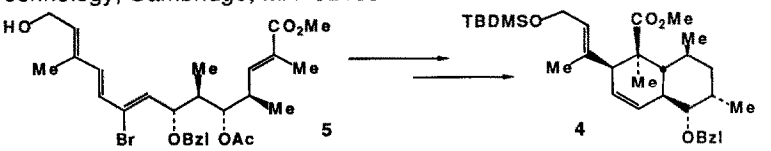


Tetrahedron Lett.29,3541(1988)

A HIGHLY STEREOSELECTIVE SYNTHESIS OF THE OCTAHYDRONAPHTHALENE SUBUNIT OF KIJANOLIDE AND TETRONOLIDE

William R. Roush,* Bradley B. Brown and Susan E. Drozda
Departments of Chemistry, Indiana University, Bloomington, IN 47401
and Massachusetts Institute of Technology, Cambridge, MA 02139

A highly stereoselective synthesis of **4** via the intramolecular Diels-Alder reaction of **5** is described.

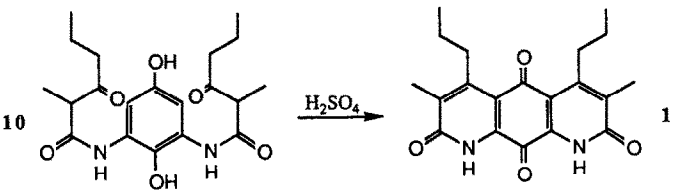


Tetrahedron Lett.29,3545(1988)

SYNTHESIS OF DIAZAQUINOMYCIN A AND B: THE FIRST DOUBLE KNORR CYCLIZATION

T. Ross Kelly,* Jeffrey A. Field and Qun Li
Department of Chemistry, Boston College,
Chestnut Hill, MA 02167 USA

*The one-pot conversion of **10** to diazaquinomycin A (**1**) proceeds in 95% yield.*

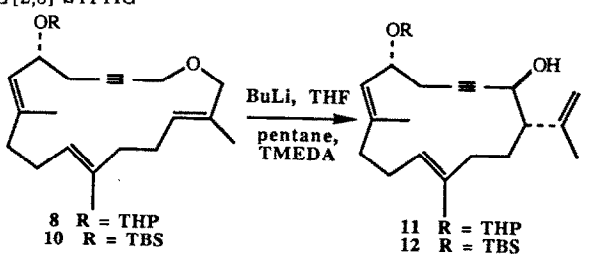


Tetrahedron Lett.29,3547(1988)

SYNTHESIS OF 6-HYDROXYCEMBRANE PRECURSORS BY CONFORMATIONALLY CONTROLLED DIASTEREOSELECTIVE [2,3] WITTIG RING CONTRACTION

James A. Marshall, Edward D. Robinson, and Jacques Lebreton
Department of Chemistry, University of South Carolina, Columbia, South Carolina 29208 U.S.A.

The alkoxy substituted 17-membered ethers **8** and **10** afford the syn/trans propargylic alcohols **11** and **12** as the major products upon [2,3] Wittig ring contraction.



8 R = THP
10 R = TBS

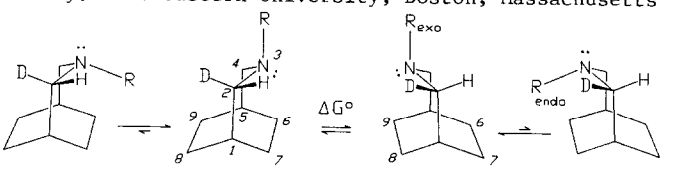
11 R = THP
12 R = TBS

Tetrahedron Lett.29,3551(1988)

CONFORMATIONAL EQUILIBRIUM ISOTOPE EFFECTS
IN 3-AZABICYCLO[3.2.2]NONANES

David A. Forsyth* and Vichukorn Prapansiri
Department of Chemistry, Northeastern University, Boston, Massachusetts 02115

Perturbed Equilibria:

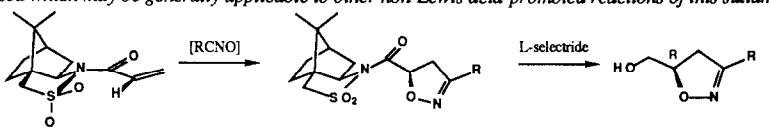


Tetrahedron Lett.29,3555(1988)

The Preparation of Optically Active Δ^2-Isoxazolines. A Model for Asymmetric Induction in the Non-Lewis Acid-Catalyzed Reactions of Oppolzer's Chiral Sultam

Dennis P. Curran,* Byeang Hyean Kim, James Daugherty, and Timothy A. Heffner
Department of Chemistry, University of Pittsburgh, Pittsburgh, PA 15260, USA

Good asymmetric induction (ca. 90/10) is reported in the cycloaddition reactions of nitrile oxides with Oppolzer's chiral sultam. A model is proposed which may be generally applicable to other non-Lewis acid-promoted reactions of this sultam.

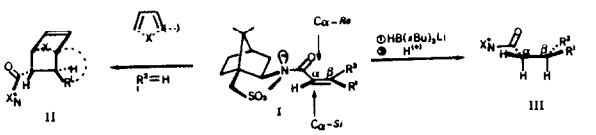


Tetrahedron Lett.29,3559(1988)

STABLE AND REACTIVE CONFORMATIONS OF N-ENOYL-BORNANE-10-2-SULTAMS IN THE ABSENCE OF LEWIS ACIDS: ASYMMETRIC 1,4-HYDRIDE ADDITIONS

W.Oppolzer*, G.Poli, C.Starkemann, and G.Bernardinelli.
Département de Chimie Organique, Université de Genève, CH-1211 Genève, Switzerland

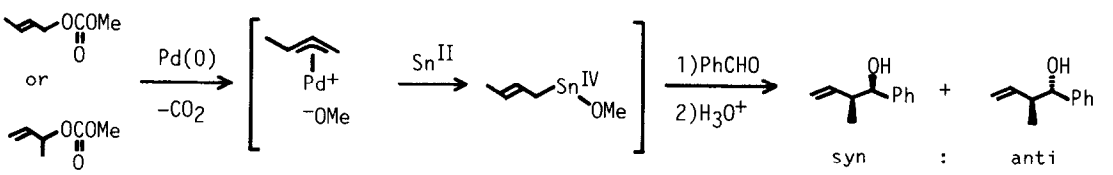
X-Ray diffraction studies of two N-enoylsultams and of the corresponding N,O-ketene acetals (from 1,4 H^- addition / O-acylation) provide an insight into the topicity of addition reactions (e.g.: I→II; I→III) in the absence of chelating Lewis acids.



Tetrahedron Lett.29,3563(1988)

DIASTEREOSELECTIVITY IN CARBONYL ALLYLATION BY ALLYLIC CARBONATES USING $PdCl_2(PhCN)_2$-$SnCl_2$ SYSTEM

Yoshiro Masuyama,* Kiyotaka Otake, Yasuhiko Kurusu
Department of Chemistry, Sophia University, 7-1 Kioicho, Chiyoda-ku, Tokyo 102, Japan

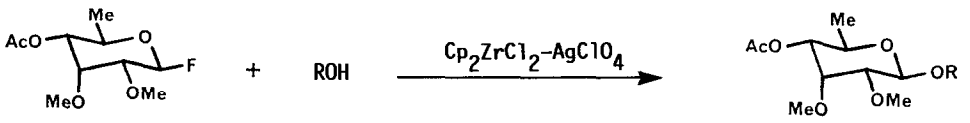


Tetrahedron Lett.29,3567(1988)

New Glycosidation Reaction 1.

Combinational Use of Cp_2ZrCl_2-$AgClO_4$ for Activation of Glycosyl Fluorides and Application to Highly β-Selective Gylcosidation of D-Mycinose

Takashi Matsumoto, Hideki Maeta, Keisuke Suzuki*, and late Gen-ichi Tsuchihashi
Department of Chemistry, Keio University, Hiyoshi, Yokohama 223, Japan

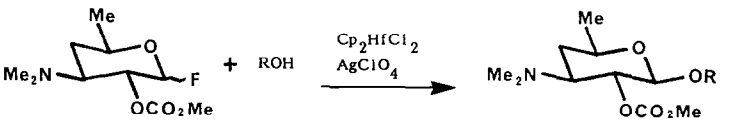


Tetrahedron Lett.29,3571(1988)

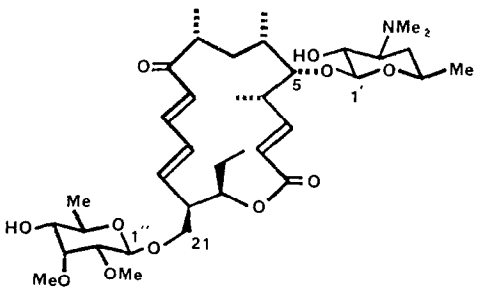
New Glycosidation Reaction 2.

Preparation of 1-Fluoro-D-Desosamine Derivative and its Efficient Glycosidation by the Use of Cp_2HfCl_2-$AgClO_4$ as the Activator

Keisuke Suzuki*, Hideki Maeta, Takashi Matsumoto, and late Gen-ichi Tsuchihashi
Department of Chemistry, Keio University, Hiyoshi, Yokohama 223, Japan



Tetrahedron Lett.29,3575(1988)



Mycinamicin IV

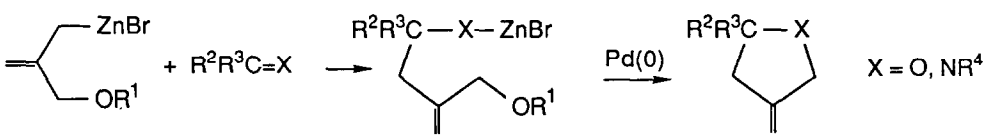
First Total Synthesis of Mycinamicin IV and VII. Successful Application of New Glycosidation Reaction

Takashi Matsumoto, Hideki Maeta, Keisuke Suzuki*, and late Gen-ichi Tsuchihashi
Department of Chemistry, Keio University, Hiyoshi, Yokohama 223, Japan

Tetrahedron Lett.29,3579(1988)

3-METHYLENETETRAHYDROFURANS AND 3-METHYLENEPYRROLIDINES BY ADDITION OF 2-BROMOZINCMETHYL-2-PROPENYL ETHERS TO ALDEHYDES, KETONES AND IMINES FOLLOWED BY Pd(0)-CATALYZED CYCLIZATION

J. van der Louw, J.L. van der Baan, H. Stichter, G.J.J. Out, F. Bickelhaupt and G.W. Klumpp,
Scheikundig Laboratorium, Vrije Universiteit, De Boelelaan 1083, 1081 HV Amsterdam, The Netherlands.

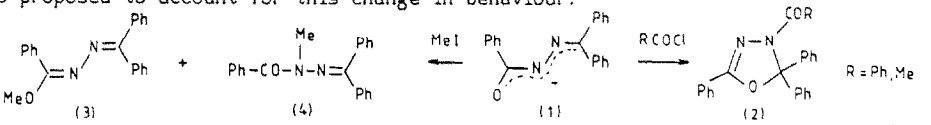


Tetrahedron Lett.29,3581(1988)

UNEXPECTED REACTIVITY OF THE ANION DERIVED FROM BENZOPHENONE BENZOYLHYDRAZONE IN THE PRESENCE OF ELECTROPHILES

Diego Armesto,* Mar G. Gallego, William M. Horspool, Ana Ramos.
Departamento de Quimica Orgánica, Facultad de Ciencias Quimicas, Universidad Complutense, 28040-Madrid, Spain and Department of Chemistry, The University, Dundee, DD1 4HN, Scotland.

The reactions of the anion (1) with acid chlorides afford dihydro-oxadiazoles (2). When methyl iodide is used as electrophile open chain products (3) and (4) are obtained. An electron transfer mechanism is proposed to account for this change in behaviour.



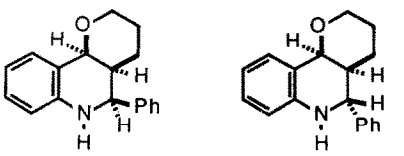
Tetrahedron Lett.29,3585(1988)

CYCLOADDITION REACTIONS OF 3,4-DIHYDRO-2H-PYRAN WITH BENZYLIDENEANILINES

Thomas L. Gilchrist and Anne-Marie Stannard

The Robert Robinson Laboratories, University of Liverpool, P.O. Box 147, Liverpool L69 3BX, U.K.

Dihydropyran adds to benzylideneaniline to give the adducts shown, and not azetidines.

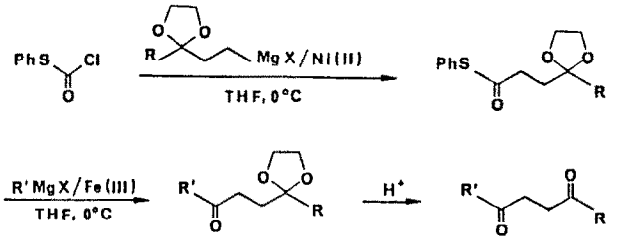


Tetrahedron Lett.29,3587(1988)

A NEW READY ROUTE TO 1,4-KETOALDEHYDES AND 1,4-DIKETONES WITH APPLICATION TO THE SYNTHESIS OF Z-JASMONE AND DIHYDROJASMONE.

V. Fiandanese, G. Marchese*, and F. Naso

Centro CNR di Studio sulle Metodologie Innovative di Sintesi Organiche, Dipartimento di Chimica, Università di Bari, Via Amendola 173, 70126 Bari, Italy

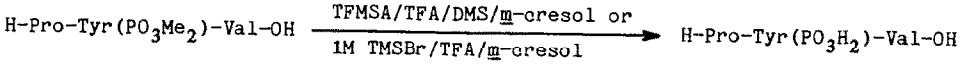


Tetrahedron Lett.29,3591(1988)

THE EFFICIENT SYNTHESIS OF A O-PHOSPHOTYROSINE-CONTAINING PEPTIDE USING MODERN DEPROTECTION METHODS

E. A. Kitas, J. W. Perich, R. B. Johns* and G. W. Tregear[a]
[a]Dept. of Organic Chemistry, University of Melbourne, Parkville 3052, Victoria, Aust.
[a]Howard Florey Institute of Experimental Physiology amd Medicine, University of Melbourne, Parkville 3052, Victoria, Australia.

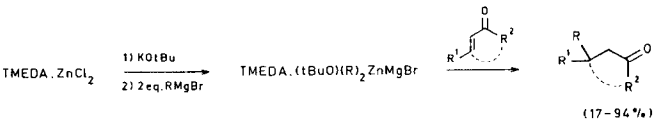
The O-phosphotyrosine-containing peptide Pro-PTyr-Val was prepared in high yield by the use of TFMSA/TFA/DMS/m-cresol or 1M TMSBr/TFA/m-cresol for the efficient dealkylation of H-Pro-Tyr(PO_3Me_2)-Val-OH.



Tetrahedron Lett.29,3593(1988)

CONJUGATE ADDITIONS OF GRIGNARD REAGENTS TO α,β-UNSATURATED KETONES MEDIATED BY DIAMINE ZINC(II)MONOALKOXIDES

Johan F.G.A. Jansen and Ben L. Feringa*
Deparment of Organic Chemistry, University of Groningen, Nijenborgh 16, 9747 AG Groningen, The Netherlands



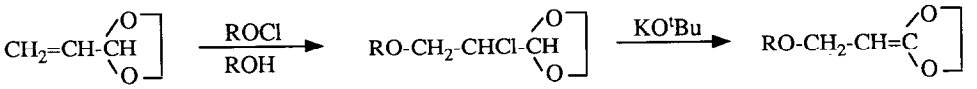
with a chiral TMEDA analoque, S,S-$[C_6H_5CH(CH_3)N(CH_3)CH_2]_2ZnCl_2$: e.e.=14%

Tetrahedron Lett.29,3597(1988)

SYNTHESIS OF 2-(2-ALKOXYETHYLIDENE)-1,3-DIOXOLANES BY USING THE 1,3-DIOXOLANE RING AS A DOUBLE BOND DIRECTING GROUP

R.W.M. Aben and J.W. Scheeren*, Department of Organic Chemistry, Catholic University Nijmegen, Toernooiveld, 6525 ED Nijmegen, The Netherlands.

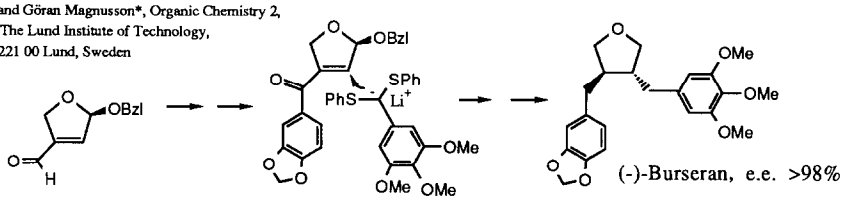
The title compounds could be synthesized from 2-chloro-acetal precursors having a dioxolan ring as acetal function so that the double bond is directed towards the dioxolan ring in the elimination reaction.



Tetrahedron Lett.29,3599(1988)

TOTAL SYNTHESIS OF THE LIGNANS (-)- AND (+)-BURSERAN, (-)-CUBEBIN, AND (-)-HINOKININ BY DIASTEREOSELECTIVE CONJUGATE ADDITION OF BENZYL ANIONS TO 2-(R)- AND (S)-BENZYLOXY-2,5-DIHYDRO-4-(3,4-METHYLENEDIOXYBENZOYL)FURAN.

Nicola Rehnberg and Göran Magnusson*, Organic Chemistry 2, Chemical Center, The Lund Institute of Technology, P. O. Box 124, S-221 00 Lund, Sweden



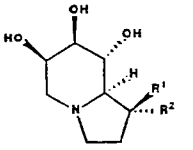
(-)-Burseran, e.e. >98%

Tetrahedron Lett.29,3603(1988)

SYNTHESIS OF 6-EPICASTANOSPERMINE AND 1,6-DIEPICASTANOSPERMINE FROM L-GULONOLACTONE AND SYNTHESIS OF L-6-EPICASTANOSPERMINE AND L-1,6-DIEPICASTANOSPERMINE FROM D-GULONOLACTONE

George W.J. Fleet,[a] Nigel G. Ramsden,[a] Russell J. Molyneux[b] and Gary S. Jacob[c]
[a]Dyson Perrins Laboratory, Oxford University, South Parks Road, Oxford OX1 3QY, UK
[b]Western Regional Research Center, USDA, Albany, California 94710, USA
[c]Searle Glycoenzymology Group, Biochemistry Department, South Parks Road, Oxford OX1 3QY, UK

The synthesis of 6-epicastonospermine (1), of 1,6-diepicastanospermine (2) and of the enantiomers of these compounds from D- and L-gulonolactone is reported.



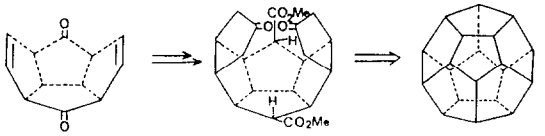
(1) R^1 = OH R^2 = H
(2) R^1 = H R^2 = OH

Tetrahedron Lett.29,3607(1988)

DESIGN OF A SPHEROIDAL ALL cis-C_{20}-HEXAQUINANE ON WAY TO DODECAHEDRANE

Goverdhan Mehta* and K. Raja Reddy, School of Chemistry, University of Hyderabad, Hyderabad 500 134, India.

Summary: C_{12}-Tetraquinane dione 1 has been elaborated into all cis- exo, exo-C_{20}-hexaquinane dione-diester 2, the key projected precursor of pentagonal dodecahedrane 3, in eleven steps.



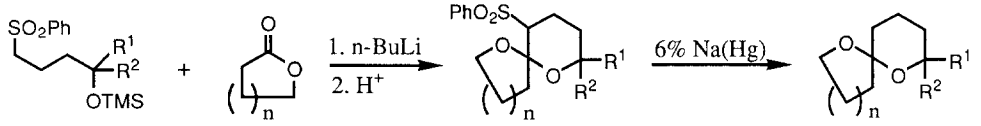
1 2 3

Tetrahedron Lett.29,3609(1988)

A FACILE SYNTHESIS OF SPIROKETALS

Margaret A. Brimble*, David L. Officer* and Geoffrey M. Williams

Department of Chemistry and Biochemistry, Massey University, Palmerston North, New Zealand.



R^1=H or Me
R^2=H or Me

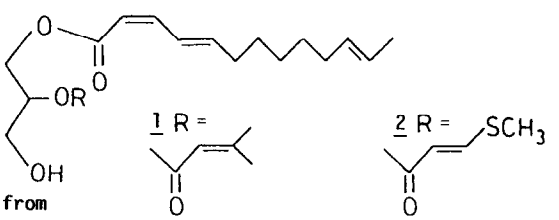
n=1 or 2

Tetrahedron Lett.29,3613(1988)

TWO ICHTHYOTOXIC DIACYLGLYCEROLS FROM THE OPISTHOBRANCH MOLLUSC UMBRACULUM MEDITERRANEUM.

G.Cimino, A.Crispino, A.Spinella*
Istituto di Chimica MIB,CNR,via Toiano 6, Arco Felice (NA) Italy

G. Sodano*
Istituto di Chimica,Università della Basilicata, Potenza, Italy



1 and 2,toxic to fish, have been isolated from the skin of the mollusc Umbraculum mediterraneum.