

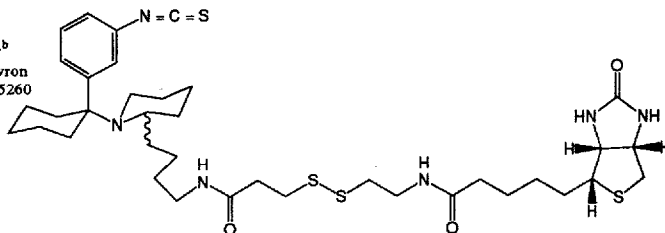
GRAPHICAL ABSTRACTS

Tetrahedron Lett. 30, 4613 (1989)

SYNTHESIS OF A BIOTIN CONJUGATE OF THE PCP ANALOGUE "METAPHIT" FOR POTENTIAL USE IN RECEPTOR ISOLATION

Alan P. Kozikowski^a, Werner Tückmantel^a, and Karl Krueger^b
^aDepartment of Chemistry and Behavioral Neuroscience, Chevron Science Center, University of Pittsburgh, Pittsburgh, PA 15260
^bFidia Georgetown Institute for the Neurosciences, 3900 Reservoir Road, N.W., Washington, D.C. 20007

A high yielding synthesis of a biotinylated analogue of the meta-isothiocyanate derivative of phencyclidine for possible use in receptor isolation is reported.

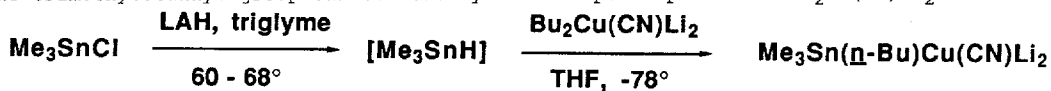


Tetrahedron Lett. 30, 4617 (1989)

CONVENIENT PREPARATION AND MANIPULATION OF Me₃SnH FROM Me₃SnCl. FORMATION AND USE OF MIXED TRIMETHYLSTANNYL CUPRATES VIA TRANSMETALATION REACTIONS

Bruce H. Lipshutz^{*} and Deborah C. Reuter
 Department of Chemistry, University of California, Santa Barbara, CA 93106

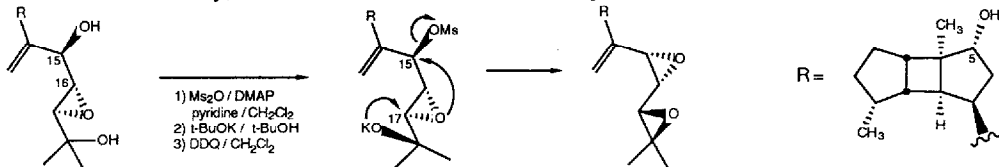
A simple experimental set-up is shown for handling Me₃SnH, from which cuprates containing the trimethylstannyl group can be readily formed upon exposure to Bu₂Cu(CN)Li₂ at -78°.



Tetrahedron Lett. 30, 4621 (1989)

TOTAL SYNTHESIS OF (+)-SPATOL. A STEREO-SPECIFIC CONSTRUCTION OF VICINAL DIEPOXIDES FROM 2,3-EPOXY-1,4-DIOLS

Robert G. Salomon,^{*} Basudeb Basu, Subhas Roy, and Ram B. Sharma
 Department of Chemistry, Case Western Reserve University, Cleveland, OH 44106-2699

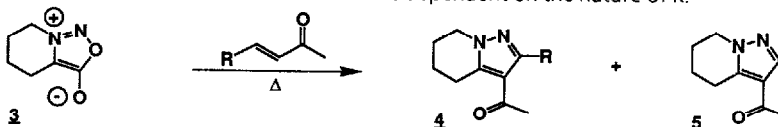


Tetrahedron Lett. 30, 4625 (1989)

CYCLOADDITION OF β -SUBSTITUTED ENONES TO A BICYCLIC SYDNONE: OBSERVATION OF AN UNEXPECTEDLY FACILE HYDROCARBON ELIMINATION

Scott D. Larsen^{*} and Esther Martinborough, Metabolic Diseases Research, The Upjohn Co., Kalamazoo, MI 49001

Cycloaddition of bicyclic sydnone **3** to β -alkyl or aryl enones provided mixtures of tetrahydropyrazolo[1,5-a]pyridines **4** and **5** in yields of 63 - 79%. The amount of **5** formed was dependent on the nature of R.

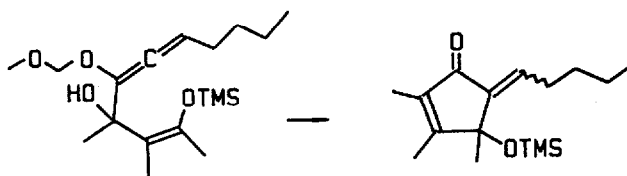


Tetrahedron Lett. 30, 4629 (1989)

DENSELY FUNCTIONALIZED CYCLOPENTENONES

Marcus A. Tius* and Xiao-ming Zhou
 Department of Chemistry, University of Hawaii
 Honolulu, Hawaii 96822, U.S.A.

The cationic cyclopentannulation reaction tolerates alkyl substitution both on the allene fragment as well as on the terminus of the enone fragment. The products are models for marine prostanoid synthesis.

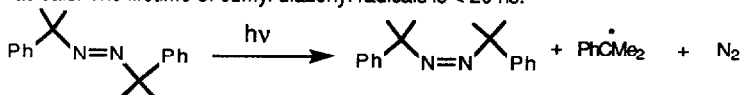


Tetrahedron Lett. 30, 4633 (1989)

TRANSIENT PHENOMENA IN THE PHOTOCHEMISTRY OF TRANS-AZOCUMENE

D. R. Boate and J. C. Scaiano*
 Division of Chemistry, National Research Council Ottawa, Canada K1A 0R6.

Photolysis of the title compound at room temperature leads to trans-cis isomerization and the generation of cumyl radicals. The lifetime of cumyl diazenyl radicals is < 20 ns.

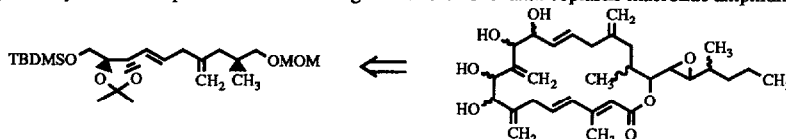


Tetrahedron Lett. 30, 4637 (1989)

STRATEGY FOR THE SYNTHESIS OF THE C10-C19 PORTION OF AMPHIDINOLIDE-A

Stephen J. O'Connor and Paul G. Williard*
 Department of Chemistry, Brown University, Providence, RI 02912

A stereospecific synthesis of a potential C10-C19 fragment of the novel antineoplastic macrolide amphinolide-A is described.

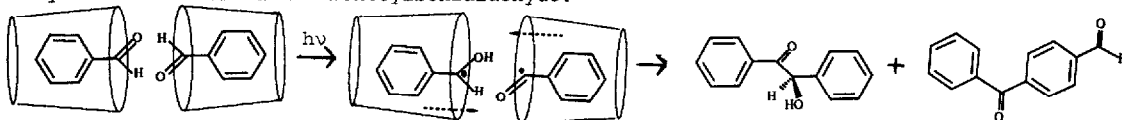


Tetrahedron Lett. 30, 4641 (1989)

ASYMMETRIC INDUCTION IN BENZOIN BY PHOTOLYSIS OF BENZALDEHYDE ADSORBED IN CYCLODEXTRIN CAVITIES

V. Pushkara Rao and N.J. Turro*
 Chemistry Department, Columbia University, New York, NY 10027

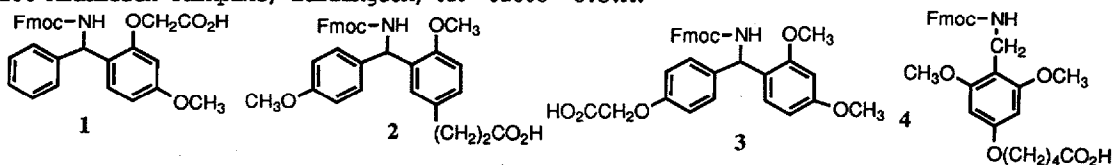
The photolysis of β -cyclodextrin complexes of benzaldehyde in the solid state produces optically active benzoins and 4-benzoylbenzaldehyde.



A COMPARISON OF ACID LABILE LINKAGE AGENTS FOR THE SYNTHESIS OF PEPTIDE C-TERMINAL AMIDES

Michael S. Bernatowicz*, Scott B. Daniels, and Hubert Köster
 Peptide Research Laboratory, Milligen/Biosearch Division - Millipore Corporation
 186 Middlesex Turnpike, Burlington, MA 01803 U.S.A.

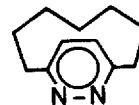
Tetrahedron Lett. 30, 4645 (1989)



THE SYNTHESIS AND STRUCTURE OF [7](3,6)PYRIDAZINOPHANE.
 Paul G. Gassman and Gail S. Boardman, Department of Chemistry, University of Minnesota, Minneapolis, Minnesota 55455.

Tetrahedron Lett. 30, 4649 (1989)

[7](3,6)Pyridazinophane has been prepared in a five-step synthesis from *cis*, *trans*-1,3-cycloundecadiene and 4-phenyl-1,2,4-triazoline-3,5-dione.

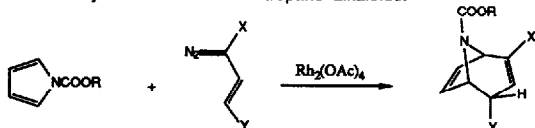


NOVEL ENTRY TO THE TROPANE SYSTEM BY REACTION OF RHODIUM(II) ACETATE STABILIZED VINYL CARBENOID WITH PYRROLES

Huw M. L. Davies,* Wendy B. Young and H. David Smith, Department of Chemistry, Wake Forest University, Box 7486, Winston-Salem, North Carolina 27109

Tetrahedron Lett. 30, 4653 (1989)

Rhodium(II) acetate catalyzed decomposition of vinyl diazomethanes in the presence of N-alkoxycarbonylpyrroles provides a direct entry to the skeleton of tropane alkaloids.

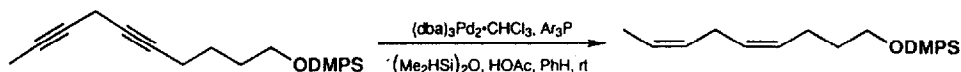


A Convenient Chemoselective Semihydrogenation of Acetylenes Using Homogeneous Catalysis

Barry M. Trost* and Rebecca Braslau
 Department of Chemistry, Stanford University, Stanford CA 94305

Tetrahedron Lett. 30, 4657 (1989)

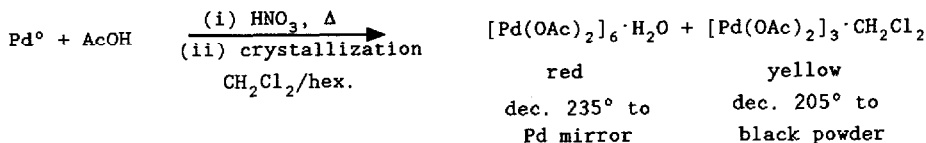
A Pd(0) catalyst permits rapid *cis* reductions of acetylenes and 1,4-reduction of some dienes using acetic acid and a silane at room temperature.



Tetrahedron Lett. 30, 4661 (1989)

ON THE VARIOUS FORMS OF PALLADIUM DIACETATE

Derek H. R. Barton*, Jamal Khamsi, Nubar Ozbalik, Manian Ramesh and Jadab Sarma
 Department of Chemistry, Texas A&M University, College Station, TX 77843



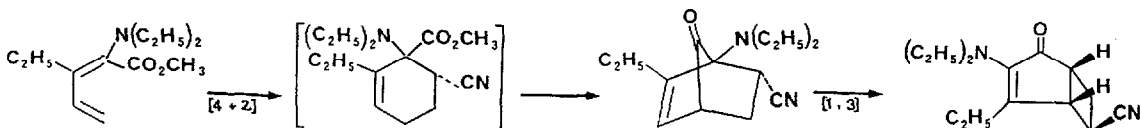
GEM-ACCEPTOR, DONOR-DISUBSTITUTED DIENES.

Tetrahedron Lett. 30, 4665 (1989)

[1,3] REARRANGEMENT OF BICYCLOHEPTENONES.

M. Bourhis, M. Goursolle, J.M. Léger.

J.G. Duboudin, F. Duboudin, P. Picard. Universités de Bordeaux I et Bordeaux II. France.

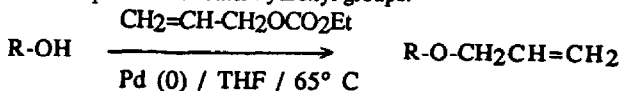
Tetrahedron Lett. 30, 4669 (1989)

ALLYL ETHYL CARBONATE/PALLADIUM (0), A NEW SYSTEM FOR THE ONE STEP CONVERSION OF ALCOHOLS INTO ALLYL ETHERS UNDER NEUTRAL CONDITIONS

R. Lakhmiri, P. Lhoste and D. Sinou*

Laboratoire de Synthèse Asymétrique, associé au CNRS, Université Claude Bernard
 43, boulevard du 11 Novembre 1918, 69622-Villeurbanne Cedex, France.

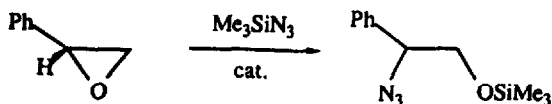
Alcohols are converted in a one-step procedure into allyl ethers under neutral conditions, using allyl ethyl carbonate in the presence of a catalytic amount of palladium (0). Anomeric hydroxyls are selectively allylated in the presence of other hydroxyl groups.

ENANTIODIVERGENT OPENING OF (R) EPOXYSTYRENE WITH Me₃SiN₃ CATALYZED BY Al(O-iPr)₃ AND Ti(O-iPr)₄Tetrahedron Lett. 30, 4673 (1989)

K. Sutowardoyo, M. Emziane and D. Sinou*

Laboratoire de Synthèse Asymétrique, associé au CNRS, Université Claude Bernard,
 43, boulevard du 11 Novembre 1918, 69622 Villeurbanne Cédex (France)

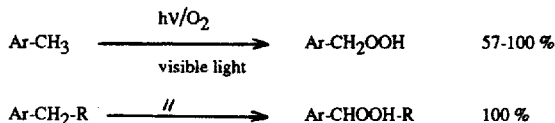
Ring-opening of (R) epoxystyrene with Me₃SiN₃ in the presence of Al(O-iPr)₃ gives only the (S) silylated azidohydrine. Use of Ti(O-iPr)₄ leads to the enantiomerically divergent opening of the epoxide, depending upon the solvent used.



ELECTRON TRANSFER ACTIVATION. HYDROPEROXIDE INTERMEDIATES
IN NOVEL AND SELECTIVE PROCEDURE FOR BENZYLIC OXIDATIONS.

Tetrahedron Lett. 30, 4677 (1989)

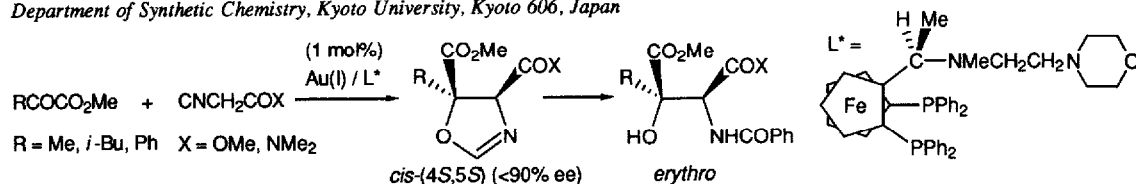
J. SANTAMARIA, R. JROUNDI and J. RIGAUDY
Laboratoire de Recherches Organiques de l'ESPCI, 75005 Paris.



ASYMMETRIC ALDOL REACTION OF α -KETOESTERS WITH
ISOCYANOACETATE AND ISOCYANOACETAMIDE CATALYZED
BY A CHIRAL FERROCENYLPHOSPHINE-GOLD(I) COMPLEX

Tetrahedron Lett. 30, 4681 (1989)

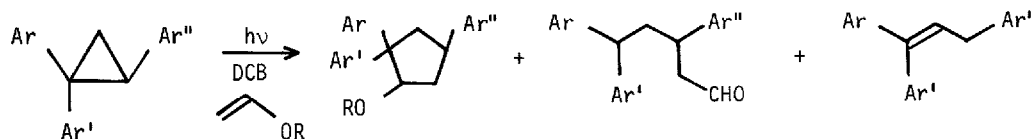
Yoshihiko Ito,* Masaya Sawamura, Hitoshi Hamashima, Takashi Emura, and Tamio Hayashi*
Department of Synthetic Chemistry, Kyoto University, Kyoto 606, Japan



[3+2] CYCLOADDITION OF CYCLOPROPANE WITH VINYL
ETHER VIA PHOTOINDUCED ELECTRON TRANSFER

Tetrahedron Lett. 30, 4685 (1989)

Hideo Tomioka,* Dai Kobayashi, Akihiko Hashimoto, and Shigeru Murata
Department of Industrial Chemistry, Faculty of Engineering Mie University,
Tsu, Mie 514 Japan

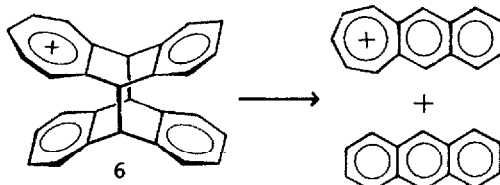


SYNTHESIS OF ANTHRACENE PHOTODIMER INCORPORATING
A TROPYLIUM RING AND ITS FACILE RETRO[4+4]
CLEAVAGE

Tetrahedron Lett. 30, 4689 (1989)

Koichi Komatsu,* Ryotaro Tsuji,
and Ken'ichi Takeuchi
Department of Hydrocarbon Chemistry, Faculty of
Engineering, Kyoto University, Sakyo-ku,
Kyoto 606, Japan

The title cation **6** exhibits an intramolecular CT
band and undergoes a retro[4+4] cleavage due to σ - π orbital mixing.

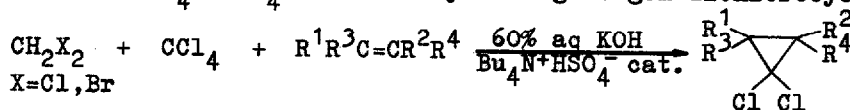


Tetrahedron Lett. 30, 4697 (1989)

DIHALOMETHANES AS C-H ACIDS IN THE CATALYTIC TWO-PHASE (CTP) SYSTEM - A NEW METHOD FOR THE SYNTHESIS OF gem-DICHLOROCYCLOPROPANES

A. Jeńczyk* and P. Balcerzak. Department of Chemistry, Technical University (Politechnika), Koszykowa 75, 00-662 Warsaw, Poland

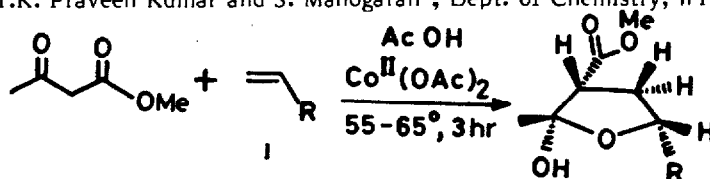
Dihalomethanes react with carbon tetrachloride and alkenes in the presence of conc. aq KOH and $\text{Bu}_4\text{N}^+\text{HSO}_4^-$ as a catalyst to give gem-dichlorocyclopropanes.



Tetrahedron Lett. 30, 4701 (1989)

COBALT(II) ACETATE PROMOTED ADDITION OF ACETO-ACETATE TO TERMINAL OLEFINS: A HIGHLY STEREO-SELECTIVE SYNTHESIS OF 5-ALKYL-2-HYDROXY-2-METHYL-3-METHOXYCARBONYL TETRAHYDROFURANS

Javed Iqbal*, T.K. Praveen Kumar and S. Manogaran*; Dept. of Chemistry, IIT Kanpur, India.



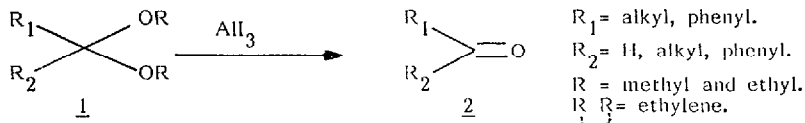
Tetrahedron Lett. 30, 4703 (1989)

A FACILE PROCEDURE FOR SELECTIVE CONVERSION OF KETALS TO CARBONYL COMPOUNDS

Parijat Sarmah and Nabin C. Barua*

Division of Natural Products Chemistry, Regional Research Laboratory, Jorhat 785006, Assam, INDIA

Ketals are selectively cleaved by aluminium triiodide (AlI_3) to the corresponding carbonyl compounds in excellent yields. However, thioketals are not affected by this reagent.

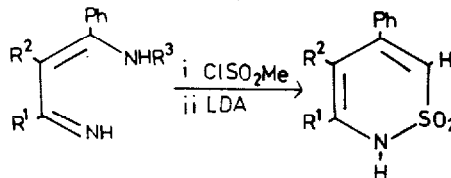


Tetrahedron Lett. 30, 4705 (1989)

A NEW, SIMPLE METHOD FOR THE PREPARATION OF SUBSTITUTED 2H-1,2-THIAZINE-1,1-DIOXIDES FROM AMINOAZABUTADIENES

José Barluenga*, Miguel Tomás and Angel Suárez-Sobrino
Departamento de Química Organometálica, Facultad de Química, Universidad de Oviedo, 33071 Oviedo, Spain.

2H-1,2-Thiazine-1,1-dioxides are obtained by sulfonylation of 4-amino-1-azabutadienes and base-promoted ring closure of the resulting sulfonamides.

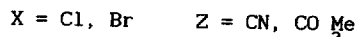
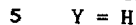
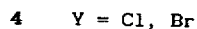
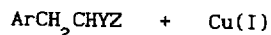
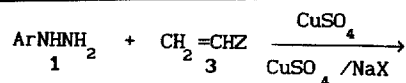


Tetrahedron Lett. 30, 4709 (1989)

ARYL RADICALS BY COPPER(II) OXIDATION OF HYDRAZINES: A NEW METHOD FOR THE OXIDATIVE AND REDUCTIVE ARYLATION OF ALKENES

Teresa Varea, María E. González-Núñez, Javier Rodrigo-Chiner and Gregorio Asensio*
 Departamento de Química Orgánica. Facultad de Farmacia
 Universidad de Valencia. 46010 Valencia. SPAIN.

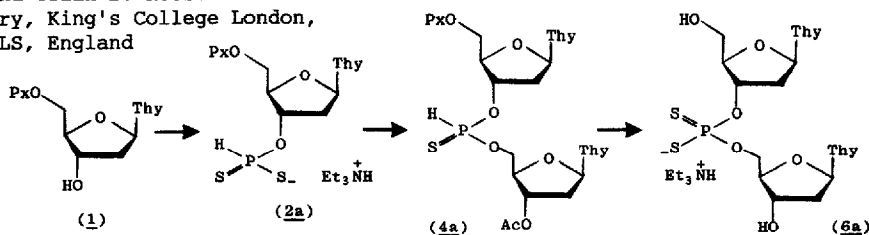
Oxidation of hydrazines **1** with copper(II) sulfate gives aryl radicals **8** that allow oxidative (**4**) and reductive (**5**) arylation of alkenes **3**.



NUCLEOSIDE PHOSPHONODITHIOATES AS INTERMEDIATES IN THE PREPARATION OF DINUCLEOSIDE PHOSPHORODITHIOATES AND PHOSPHOROTHIOATES

Geoffrey M. Porritt and Colin B. Reese*
 Department of Chemistry, King's College London,
 Strand, London WC2R 2LS, England

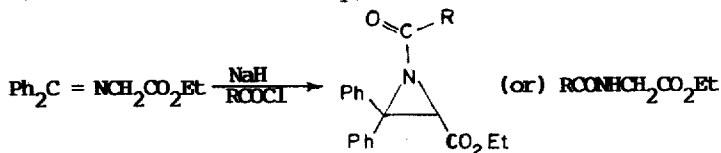
Tetrahedron Lett. 30, 4713 (1989)



UNUSUAL N-ACYLATION OF GLYCINE SCHIFF BASES. A SIMPLE APPROACH TO 3,3-DIPHENYLAZIRIDINE-2-CARBOXYLATES

M. Narayana Rao, A.G. Holkar & N.R. Ayyangar*
 National Chemical Laboratory, Pune 411 008, India

Tetrahedron Lett. 30, 4717 (1989)



Dibromination of Benzyloxy-Groups: Glycosyl Bromides from Benzyl Glycosides

P. M. Collins, P. Premaratne, A. Manro and A. Hussain, Chemistry Department, Birkbeck College, London WC1E 7HX, UK

Bromination of benzyl sugar ethers (e.g. A) with BrCCl₃ and u.v. light give α,α-dibromides (e.g. B), whereas benzyl furanosides and pyranosides (e.g. X) afford glycosyl bromides (e.g. Y). The method is shown to be of value in the block-synthesis of oligosaccharides.

Tetrahedron Lett. 30, 4721 (1989)



CONCOMITANT [2,3]-SIGMATROPIC REARRANGEMENT OF ALLYLIC SULFILIMINES AND INTRAMOLECULAR N-ALKYLATION.

SYNTHESIS OF 2-VINYL SUBSTITUTED CYCLIC AMINES
Roland E. Dolle,* Chun-Sing Li and Antony N. Shaw, Department of Medicinal Chemistry, Smith Kline & French Research Limited, Welwyn, Hertfordshire, U.K. AL6 9AR.

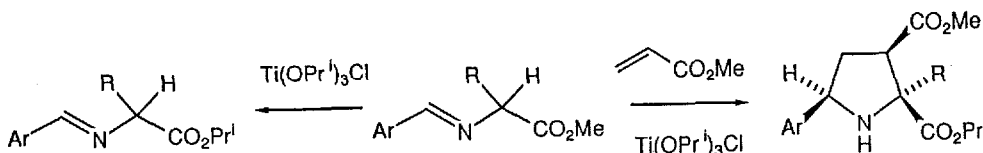
Allylic phenyl and methyl sulfides bearing an electrophilic center undergo a one-pot transformation to 2-vinyl nitrogen heterocycles upon oxidative amination and treatment with aqueous base.



Tetrahedron Lett. 30,4723 (1989)

Ti(IV) MEDIATED TRANSESTERIFICATION AND REGIO- AND STEREO-SPECIFIC CYCLOADDITION OF IMINES OF α -AMINO ESTERS, REVERSAL OF NORMAL REGIOCHEMISTRY.

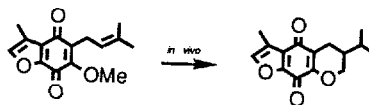
Darrin A. Barr, Ronald Grigg*† and Visuvanathar Sridharan
Chemistry Department, Queen's University, Belfast BT9 5AG, Northern Ireland.



Tetrahedron Lett. 30,4727 (1989)

Biomimetic Radical Cyclisations: Synthesis and Biosynthesis of Benzodihydro-Pyrans and -Furans
by A.J. Walkington and D.A. Whiting,
Chemistry Department, The University, Nottingham NG7 2RD

Aryloxymethylene radicals generated by decarboxylation of thiohydroxamate esters undergo non-oxidative intramolecular cyclisations, mimicking unusual biosynthetic conversions of methoxy groups, e.g. -

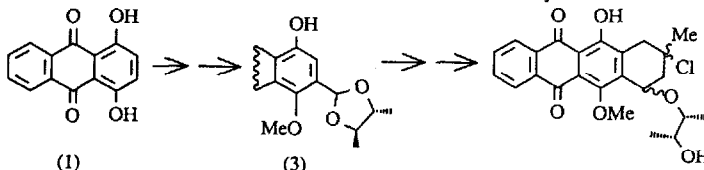


Tetrahedron Lett. 30,4731 (1989)

NOVEL CHLOROANTHRACYCLINES FROM ACETAL-ALKENE CYCLIZATION

E.G. Brown, R.C. Cambie, S.E. Holroyd, M. Johnson, P.S. Rutledge*, and P.D. Woodgate
Department of Chemistry, University of Auckland, New Zealand

Quinizarin (1) is converted in 7 steps into a homochiral acetal (3) which on methylation and reductive Claisen rearrangement gives the acetal (4). The latter gives 4 diastereomeric 9-chloroanthracyclines by an unprecedented intramolecular acetal-alkene cyclization.



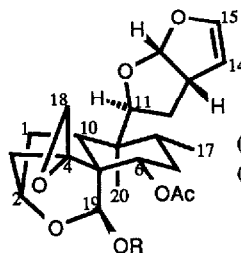
Tetrahedron Lett. 30,4735 (1989)

Tetrahedron Lett. 30, 4737 (1989)

THE STRUCTURE OF TWO NEW CLERODANE DITERPENOID INSECT ANTIFEEDANTS FROM *Scutellaria woronowii* (Juz); JODRELLIN A & B.

James C. Anderson, Wally M. Blaney, Michael D. Cole, Linda L. Fellows, Steven V. Ley, Richard N. Sheppard and Monique S.J. Simmonds.

Summary: Two new clerodane diterpenoids isolated from *Scutellaria woronowii* (Juz) were shown to be the most potent clerodane antifeedants yet discovered. Their structures were rigorously determined by ¹H, ¹³C, nuclear Overhauser difference 1-D, ¹H cosy 2-D n.m.r. and mass spectrometry.



(1) R=Ac jodrellin A
(2) R=CO.^tPr jodrellin B

Tetrahedron Lett. 30, 4741 (1989)

REDUCTIVE TRANSFORMATIONS WITH TRIMETHYLSILYL CHLORIDE-SODIUM IODIDE. A NEW SYNTHESIS OF 4H-1,3-OXAZINES.

Eugene Ghera[†], Rakesh Maurya and Alfred Hassner[†]
Department of Chemistry, Bar-Ilan University, Ramat Gan 52100, Israel.

1-Arylalkenes and 1-arylalkanols are reduced to arylalkanes on heating with TMSC/NaI in CH₃CN. Under these conditions, β,β-dialkylated enones provide 4H-1,3-oxazines:

