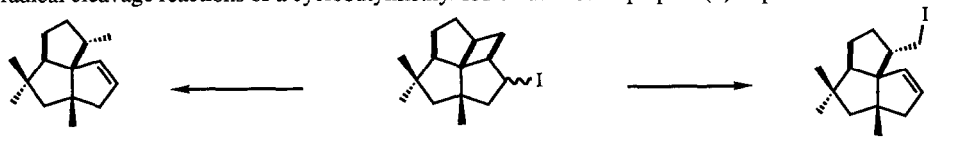
RADICAL CLEAVAGE OF CYCLOBUTANES: ALTERNATIVE ROUTES TO (±)-SILPHINENE

Tetrahedron Lett.28,5063(1987)

Michael T. Crimmins* and S. Wayne Mascarella
Department of Chemistry, University of North Carolina, Chapel Hill, North Carolina, 27514

Two radical cleavage reactions of a cyclobutylmethyl iodide utilized to prepare (±)-silphinene are described.

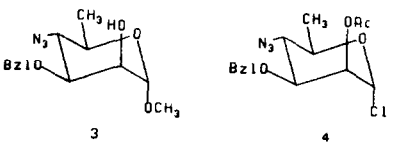


SYNTHESIS OF IMMUNOLOGICALLY ACTIVE OLIGOSACCHARIDE DETERMINANTS OF THE *BRUCELLA* A ANTIGEN: UTILIZATION OF INTERMEDIATES DERIVED FROM METHYL 4-AZIDO-4,6-DIDEOXY-α-D-MANNOPYRANOSIDE

Tetrahedron Lett.28,5067(1987)

Manfred Gerken and David Bundle*
Division of Biological Sciences. National Research Council of Canada, Ottawa, Ontario K1A 0R6

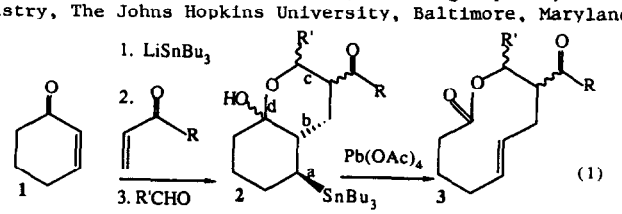
A multi-gramme scale synthesis of methyl 4-azido-4,6-dideoxy-α-D-Mannopyranoside provides access to building units (2) and (3), which allows efficient syntheses of α1,2-linked oligosaccharides of *Brucella* antigens.



ONE-POT, FOUR-DIFFERENT-COMPONENT ANNULATIONS: FLEXIBLE AND EFFICIENT CONVERSION OF n-SIZED CYCLOALKENONES INTO n+4-ALKENOLIDES

Tetrahedron Lett.28,5071(1987)

Gary H. Posner,* Edward Asirvatham, Kevin S. Webb, and Sang-sup Jew,
Department of Chemistry, The Johns Hopkins University, Baltimore, Maryland 21218, USA

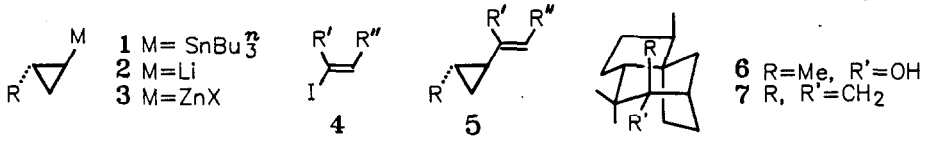


SYNTHESIS OF VINYLCYCLOPROPANES VIA PALLADIUM-CATALYZED COUPLING OF CYCLOPROPYLZINC HALIDES WITH VINYL IODIDES. TOTAL SYNTHESES OF (±)-PREZIZANOL AND (±)-PREZIZAENE.

Tetrahedron Lett.28,5075(1987)

Edward Piers,* Michel Jean, and Peter S. Marrs
Department of Chemistry, University of British Columbia, Vancouver, B.C., Canada V6T 1Y6

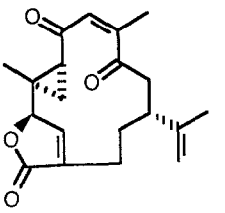
Palladium(0)-catalyzed coupling of cyclopropylzinc halides 3 (derived from 1 via 2) with vinyl iodides 4 provides vinylcyclopropanes in good yields. This type of coupling reaction is used as a key step in total syntheses of the sesquiterpenoids (±)-prezizanol (6) and (±)-prezizaene (7).



Tetrahedron Lett.28,5079(1987)

GERSOLIDE, A DITERPENOID WITH A REARRANGED CARBON SKELETON FROM THE SOFT CORAL *GERSEMIA RUBIFORMIS*

D.A. Williams[+], R.J. Andersen[*++], L. Parkanyi[++] and J. Clardy[*++]
[+]Dept. of Chemistry, U. of British Columbia, Vancouver, B.C., CANADA V6T 1W5,[++]Dept. of Chemistry, Cornell University, Ithaca, New York, 14853



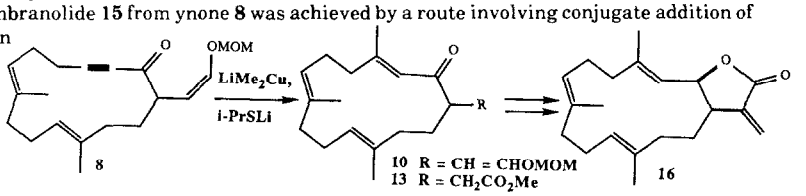
The structure of gersolide, a diterpenoid isolated from the soft coral *Gersemia rubiformis*, has been solved via x-ray diffraction analysis.

Tetrahedron Lett.28,5081(1987)

STEREOSELECTIVE SYNTHESIS OF CEMBRANOLIDES VIA CONJUGATE ADDITION TO CYCLOALKYNONES

James A. Marshall and Stephen L. Crooks
Department of Chemistry, University of South Carolina, Columbia, South Carolina 29208 U.S.A.

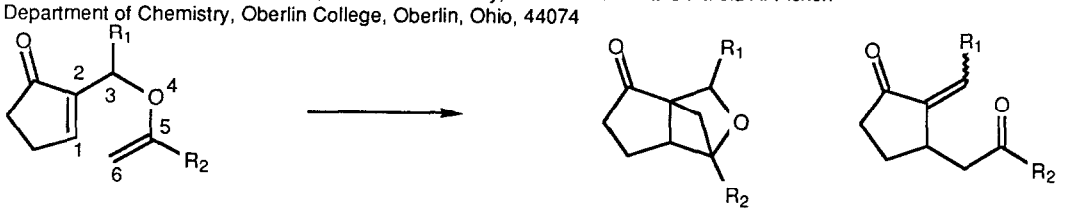
The synthesis of the unnamed cembranolide **15** from ynone **8** was achieved by a route involving conjugate addition of $LiMe_2Cu$ followed by equilibration of the resulting enone mixture to afford **10** as the sole product. Stereoselective reduction of **13** was effected with $NaBH_4$.



Tetrahedron Lett.28,5083(1987)

INTRAMOLECULAR PHOTOCHEMICAL REACTIONS OF 2-ACYL-4-OXA-1,5-HEXADIENES

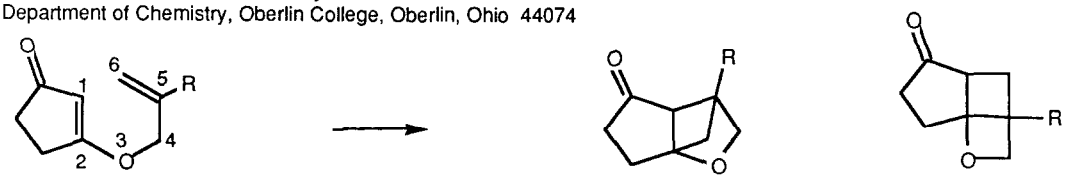
Albert R. Matlin*, Thomas C. Leckta, David J. McGarvey, Peter W. Jacob and Harold A. Picken
Department of Chemistry, Oberlin College, Oberlin, Ohio, 44074



Tetrahedron Lett.28,5087(1987)

INTRAMOLECULAR PHOTOCYCLOADDITIONS OF 1-ACYL-3-OXA-1,5-HEXADIENES

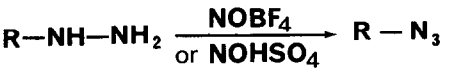
Albert R. Matlin*, David J. McGarvey
Department of Chemistry, Oberlin College, Oberlin, Ohio 44074



Tetrahedron Lett.28,5091(1987)

AZIDE SYNTHESIS WITH STABLE NITROSYL SALTS

Vince Pozsgay and Harold J. Jennings
Division of Biological Sciences, National Research Council of Canada, Ottawa, Ontario, Canada K1A 0R6

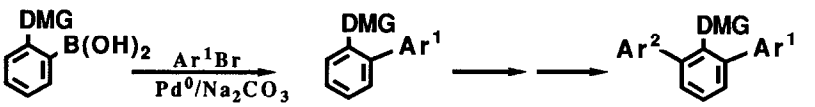


R = acyl or aryl group

Tetrahedron Lett.28,5093(1987)

SYNTHETIC CONNECTIONS TO THE AROMATIC DIRECTED METALATION REACTION. FUNCTIONALIZED ARYL BORONIC ACIDS BY IPSO BORODESILYLATION. GENERAL SYNTHESES OF UNSYMMETRICAL BIPHENYLS AND m-TERPHENYLS.

M.J.Sharp, W.Cheng, V.Snieckus*, Guelph-Waterloo Centre for Graduate Work in Chemistry, University of Waterloo, Waterloo, Ontario, Canada. N2L 3G1.



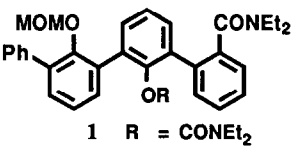
DMG = DIRECTED METALATION GROUP : $CON(i\text{-}Pr)_2$, $OCONEt_2$, OMOM , $NHCO_2$ t-Bu

Tetrahedron Lett.28,5097(1987)

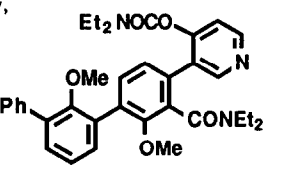
SYNTHETIC CONNECTIONS TO THE AROMATIC DIRECTED METALATION REACTION. ITERATIVE ORTHO METALATION-CROSS COUPLING TACTICS FOR THE CONSTRUCTION OF POLYPHENYLS.

W.Cheng, V.Snieckus*, Guelph-Waterloo Centre for Graduate Work in Chemistry, University of Waterloo, Waterloo, Ontario, Canada. N2L 3G1.

Tetraphenyls (e.g. 1 and 2) have been prepared by iterative ortho metalation - cross coupling strategy.



1 R = $CONEt_2$



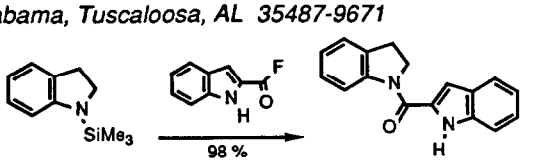
2

Tetrahedron Lett.28,5099(1987)

A NEW SYNTHESIS OF AMIDES FROM ACYL FLUORIDES AND N-SILYLAMINES

Sundaramoorthi Rajeswari, Robert J. Jones, and Michael P. Cava*
Department of Chemistry, University of Alabama, Tuscaloosa, AL 35487-9671

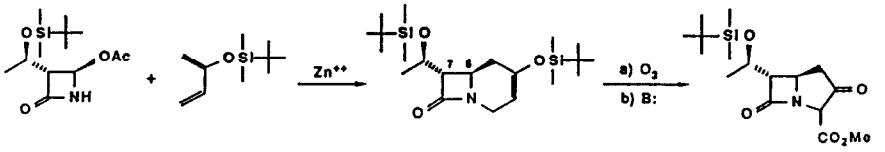
Amide bonds are formed readily under mild conditions by the reaction of N-silylamines with the hydrolytically stable acyl fluorides.



Tetrahedron Lett.28,5103(1987)

AN EFFICIENT ENANTIOSELECTIVE SYNTHESIS OF THE CARBAPEN-EM-2-ONE SYSTEM. AN APPROACH TO (+)-THIENAMYCIN AND RELATED CARBAPENEMS.

A. I. Meyers*, Thomas J. Sowin, Stefan Scholz, and Yasutsugu Ueda, Department of Chemistry, Colorado State University, Fort Collins, Colorado 80523 USA



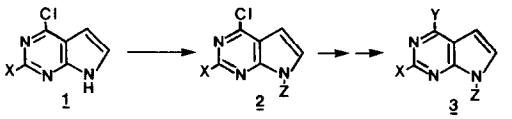
30% overall yield

Tetrahedron Lett.28,5107(1987)

A FACILE SYNTHESIS OF TUBERCIDIN AND RELATED 7-DEAZAPURINE NUCLEOSIDES VIA THE STEREOSPECIFIC SODIUM SALT GLYCOSYLATION PROCEDURE

K. Ramasamy, N. Imamura, R.K. Robins and G.R. Revankar, Nucleic Acid Research Institute, 3300 Hyland Avenue, Costa Mesa, California 92626, U.S.A.

A synthesis of 7-deazapurine nucleosides (3) by the Na-salt glycosylation method is reported.



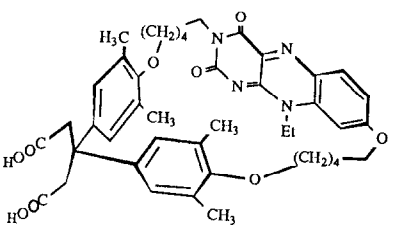
X=H, Y=NH_2, Z=β-D-ribofuranosyl
X=NH_2, Y=OH, Z=β-D-ribofuranosyl
X=NH_2, Y=OH, Z=2′-deoxy-β-D-ribofuranosyl

Tetrahedron Lett.28,5111(1987)

REDOX-DEPENDENT COMPLEXATION ABILITY OF FLAVIN-HOSTS IN AQUEOUS SOLUTION

Eileen Seward and François Diederich*
Department of Chemistry and Biochemistry, University of California, Los Angeles, CA 90024, U.S.A.

The synthesis of the novel macrocyclic host **1** incorporating an isoalloxazine moiety as model for active sites of flavoenzymes is described. The complexation between oxidized and reduced flavin-host and aromatic guests is analyzed in aqueous solution.



Tetrahedron Lett.28,5115(1987)

THE MECHANISM OF HYDROXYLATION OF ORGANOMETALLIC REAGENTS BY 2-SULFONYLOXAZIRIDINES

Franklin A. Davis*, Jia Wei, Aurelia C. Sheppard and Steven Gubernick, Department of Chemistry, Drexel University, Philadelphia, PA 19104

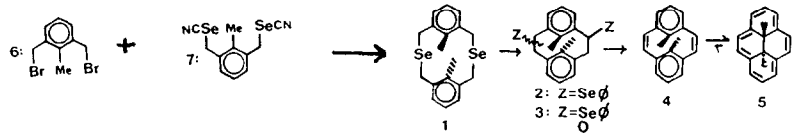
The hydroxylation of organometallic reagents (RM) by 2-sulfonyloxaziridines **1** is shown to involve a hemiaminal intermediate **2**, whose stability is related to the nucleophilicity of the hydroxylated product (ROH).

$$PhSO_2N\overset{O}{\diagdown\diagup}CHAr\ (\mathbf{1}) + RM \longrightarrow [PhSO_2N\text{-}CH(OR)Ar]^-M^+\ (\mathbf{2}) \xrightarrow{H^+} ROH + PhSO_2N{=}CHAr$$

Tetrahedron Lett.28,5119(1987)

anti-9,18-DIMETHYL-2,11-DISELENA[3.3]METACYCLOPHANE
A CORRECTION TO THE LITERATURE.
THE SELENOXIDE ELIMINATION APPLIED TO THE SYNTHESIS OF DIMETHYLDIHYDROPYRENE.

Reginald H. Mitchell*, Kumudini S. Weerawarna and Gordon W. Bushnell
Department of Chemistry, University of Victoria, Victoria, BC V8W 2Y2 Canada.

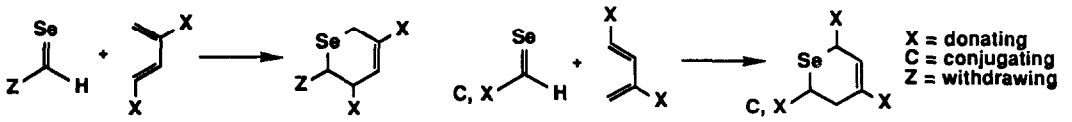


Tetrahedron Lett.28,5121(1987)

REGIOCHEMICAL PREFERENCES IN SELENOALDEHYDE CYCLOADDITIONS

Peter T. Meinke and Grant A. Krafft*
Department of Chemistry, Syracuse University, Syracuse, New York 13244-1200

Cycloaddition reactions of electron deficient selenoaldehydes give products exhibiting "ortho-para" orientation, while electron rich or conjugated selenoaldehydes give products exhibiting "meta" orientation.

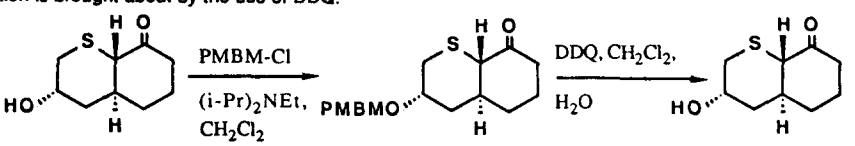


Tetrahedron Lett.28,5125(1987)

PROTECTION OF ALCOHOLS AS THEIR (*p*-METHOXY-BENZYLOXY)METHYL ETHERS.

Alan P. Kozikowski and Jiang-Ping Wu
Department of Chemistry, University of Pittsburgh, Pittsburgh, PA 15260

Protection of even tertiary alcohols can be accomplished by treatment with *p*-methoxybenzyl chloromethyl ether. Deprotection is brought about by the use of DDQ.

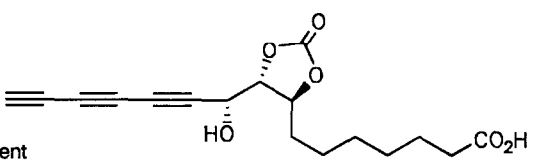


Tetrahedron Lett.28,5129(1987)

ABSOLUTE AND RELATIVE CONFIGURATION OF L-660,631

M. D. Lewis* & R. Menes
Merck Sharp & Dohme Research Laboratories
PO BOX 2000, Rahway NJ 07065

Summary: The relative and absolute stereochemistry of the potent antifungal agent L-660,631 has been determined to be as depicted by synthesis of an appropriate degradation product.

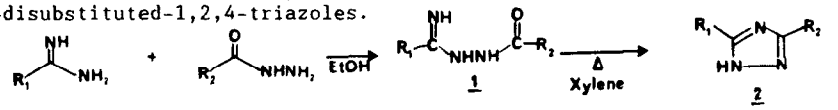


Tetrahedron Lett.28,5133(1987)

A CONVENIENT SYNTHESIS OF 3,5-DISUBSTITUTED-1,2,4-TRIAZOLES

J.E. Francis, L.A. Gorczyca, G.C. Mazzenga and H. Meckler*
Pharmaceuticals Division, CIBA-GEIGY Corporation, Summit, N.J. 07901

Conditions have been developed for the efficient two-step preparation of 3,5-disubstituted-1,2,4-triazoles.

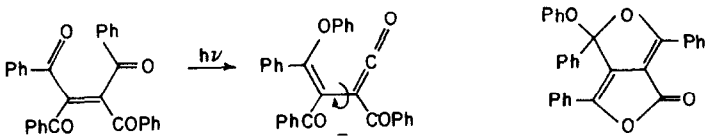


1 2

Tetrahedron Lett.28,5137(1987)

THE MECHANISM OF PHOTOISOMERIZATION OF TETRABENZOYLETHYLENE

Mordecai B. Rubin*, Department of Chemistry, Technion - Israel Institute of Technology, Haifa, Israel 32000
Wolfram W. Sander*, Organisch-Chemisches Institut, Universität, D-6900 Heidelberg 1, Federal Republic of Germany



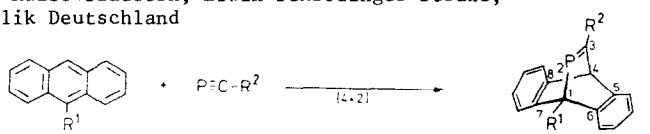
Tetrahedron Lett.28,5141(1987)

PHOSPHABARRELENES WITH $\lambda^3\sigma^2$-PHOSPHORUS

Ulrich Annen and Manfred Regitz

Fachbereich Chemie der Universität Kaiserslautern, Erwin-Schrödinger-Straße, D-6750 Kaiserslautern, Bundesrepublik Deutschland

Anthracenes (1) react with phosphaalkynes at elevated temperature to yield phosphabarrelenes (3) having $\lambda^3\sigma^2$-phosphorus.

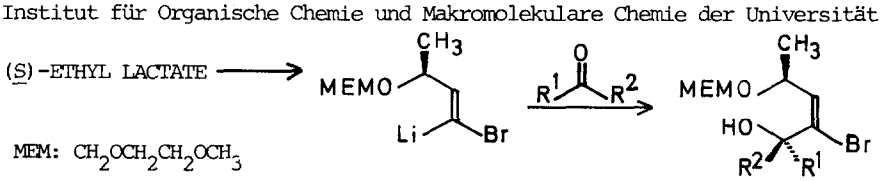


1 2 3

Tetrahedron Lett.28,5145(1987)

STEREOSELECTIVE ADDITION OF A NOVEL, ENANTIOMERICALLY PURE VINYLLITHIUM REAGENT TO PROCHIRAL CARBONYL COMPOUNDS

Hellmut Mahler and Manfred Braun*
Institut für Organische Chemie und Makromolekulare Chemie der Universität Düsseldorf, FRG

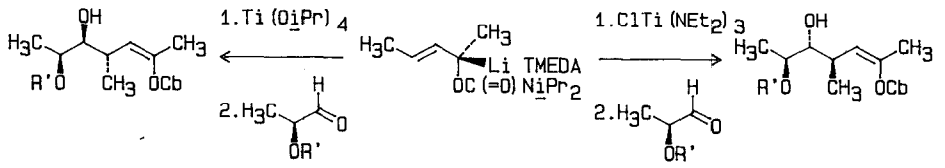


MEM: $CH_2OCH_2CH_2OCH_3$

REAGENT-CONTROLLED ENANTIOSELECTIVE HOMOALDOL REACTION WITH CHIRAL 1-OXYALLYLLITHIUM DERIVATIVES. ENANTIO-DIVERGENT TUNING BY ACHIRAL TITANIUM REAGENTS

Tetrahedron Lett.28,5149(1987)

Thomas Krämer and Dieter Hoppe*, Institut für Organische Chemie
Universität Kiel, Olshausenstr. 40-60, D-2300 Kiel 1, BRD.

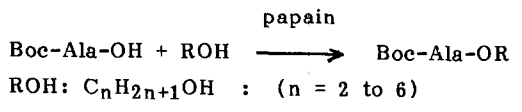


Tetrahedron Lett.28,5153(1987)

Papain catalyzed esterification of alanine by alcohols and diols

D. Cantacuzène and C. Guerreiro

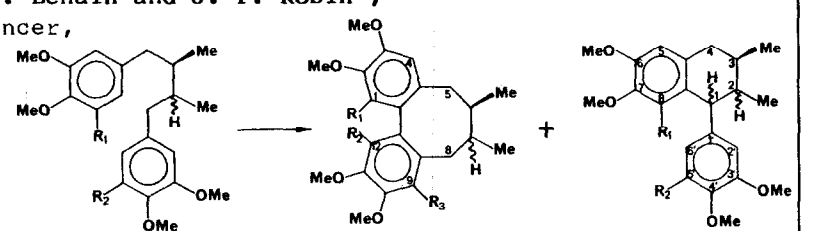
Institut Pasteur, Unité de Chimie Organique, 28, rue du Docteur Roux, 75724 Paris Cedex 15, France.



SYNTHESIS OF DIARYLBUTANES FROM CORDIGERINES AND REINVESTIGATION OF THEIR OXIDATIVE COUPLINGS IN DEOXYSCHIZANDRINS. -AN UNUSUAL FORMATION OF PHENYLTETRALIN LIGNANS -

Tetrahedron Lett.28,5161(1987)

Y. Landais, A. Lebrun, V. Lenain and J.-P. Robin*,
Groupe Phytochimie et Cancer, Departement Chimie, IUT du Mans Institut Universitaire de Technologie, Université du Maine, route de Laval, 72017 Le Mans Cédex, France.

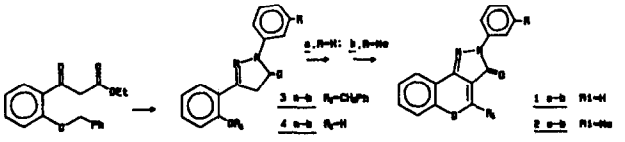


Tetrahedron Lett.28,5165(1987)

THE CORRECT SYNTHESIS OF 2,3-DIHYDRO-2-ARYL-4-R-[1]BENZOPYRANO[4,3-c]PYRAZOLE-3-ONES.

Vittoria Colotta, Lucia Cecchi , Fabrizio Melani, Giovanna Palazzino and Guido Filacchioni. Dipartimento di Scienze Farmaceutiche, Via G. Capponi, 9, 50121 Firenze, Italy.

The correct synthesis of the title compounds 1a-b and 2a-b is described.

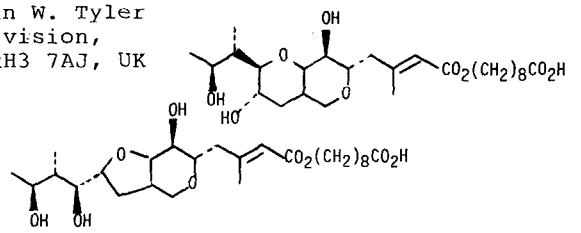


Tetrahedron Lett.28,5169(1987)

REGIOSELECTIVE ENZYMIC HYDROLYSIS IN THE ISOLATION OF ISOMERS OF MUPIROCIN

John T. Sime*, Colin R. Pool and John W. Tyler
Beecham Pharmaceuticals, Research Division, Brockham Park, Betchworth, Surrey, RH3 7AJ, UK

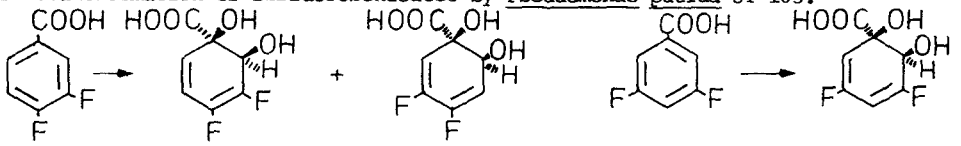
Preparations of, and NMR data for, two pseudomonic acid A isomers.



Tetrahedron Lett.28,5173(1987)

AROMATIC BIOTRANSFORMATIONS 2: *PRODUCTION OF NOVEL CHIRAL FLUORINATED* 3,5-*CYCLOHEXADIENE*-CIS-1,2-DIOL-1-CARBOXYLATES. John T. Rossiter[a], Steve R. Williams[b], Anthony E.G. Cass[a] and Douglas W. Ribbons[a]*, [a] Centre for Biotechnology, Imperial College, London SW7 2AZ, U.K. [b] Royal College of Surgeons, Lincoln's Inn Fields, London WC2A 3PN, U.K.

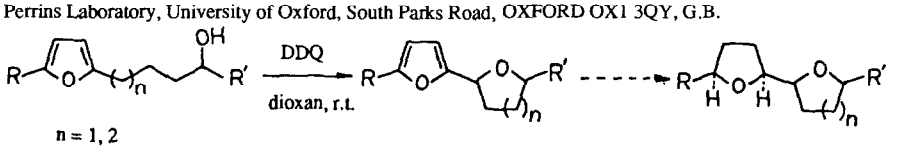
Biotransformation of Difluorobenzoates by Pseudomonas putida JT 103.



Tetrahedron Lett.28,5175(1987)

PREPARATION OF CYCLIC ETHERS *VIA* OXIDATIVE CYCLISATION OF 2-(4-HYDROXYALKYL) AND 2-(5-HYDROXYALKYL)FURANS WITH DDQ.

Laurence M. Harwood* and Jeremy Robertson
Dyson Perrins Laboratory, University of Oxford, South Parks Road, OXFORD OX1 3QY, G.B.



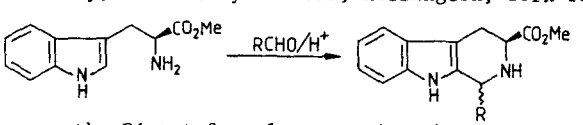
n = 1, 2

Reaction of 2-(4- or 5-hydroxyalkyl)furans with DDQ leads to the smooth formation of cyclic ethers under neutral conditions, but aromatic analogues do not give useful yields of desired products.

Tetrahedron Lett.28,5177(1987)

EXCEPTIONAL STEREOCHEMICAL CONTROL OF THE PICTET-SPENGLER REACTION

Patrick D. Bailey, Sean P. Hollinshead & Neil R. McLay,
Department of Chemistry, University of York, Heslington, York YO1 5DD, U.K.

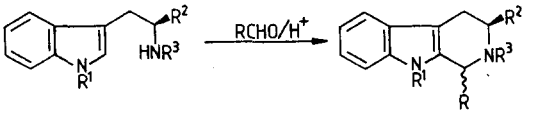


At low temperatures, the Pictet-Spengler reaction above stereo-selectively yields cis-1,3-disubstituted tetrahydro-β-carbolines of high optical purity.

Tetrahedron Lett.28,5181(1987)

ON THE STEREOCHEMISTRY OF THE PICTET-SPENGLER REACTION

Patrick D. Bailey, Department of Chemistry, University of York, Heslington, York YO1 5DD, U.K.



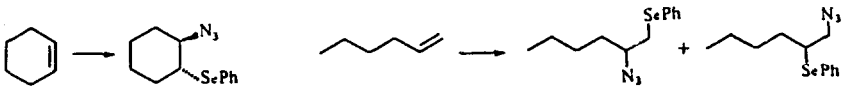
It is shown that the stereochemical features of the Pictet-Spengler reaction are consistent with the rapid reversible formation of a spiro-indolenine followed by a slow migration step.

Tetrahedron Lett.28,5185(1987)

PHENYLSELENIUM AZIDE ADDITION TO ALKENES. A NEW AND STEREOSPECIFIC INTRODUCTION OF Se AND N INTO ORGANIC MOLECULES.

Alfred Hassner*, Ananda S. Amarasekara
Department of Chemistry, Bar-Ilan University, Ramat-Gan 52100, Israel

$PhSeN_3$ adds stereospecifically but not regiospecifically to alkenes.

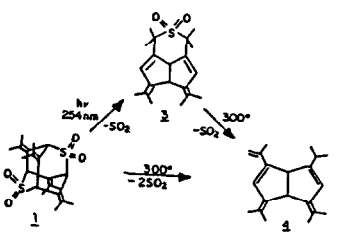


Tetrahedron Lett.28,5189(1987)

SKELETAL REARRANGEMENT OF A 2,6-DITHIAADAMANTANE-2,2,6,6-TETRAOXIDE DERIVATIVE DURING THERMAL AND PHOTOCHEMICAL SULFUR DIOXIDE EXTRUSION.

Samuel Braverman*, David Reisman and Meir Freund
Department of Chemistry, Bar-Ilan University,
Ramat-Gan 52100, Israel

The photochemical and thermal conversion of bis-sulfone 1 to 3 and 4, respectively, are described. The mechanistic significance and novelty of these results are discussed.



Tetrahedron Lett.28,5193(1987)

A FACILE SYNTHESIS OF SULFINYL CHLORIDES FROM THIOLACETATES

Sergio Thea* and Giorgio Cevasco
Istituto di Chimica Organica dell'Università e C.N.R. Centro di Studio sui Diariloidi e loro Applicazioni, Corso Europa 26 I-16132 GENOVA (Italia)

Alkyl and aryl thiolacetates are converted smoothly into sulfinyl chlorides by sulfuryl chloride in the presence of acetic anhydride.

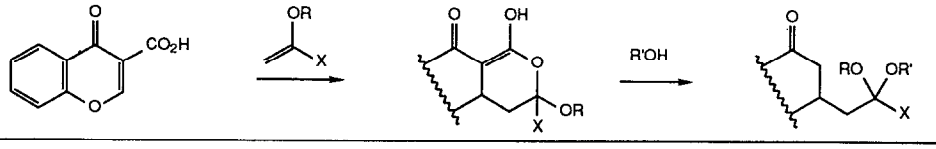
$$(Ar)R\text{-}S\text{-}Ac + Ac_2O + 2SO_2Cl_2 \longrightarrow (Ar)R\text{-}SO\text{-}Cl + 3AcCl + 2SO_2$$

Tetrahedron Lett.28,5195(1987)

A ROUTE TO FUNCTIONALISED 1,5-DICARBONYL SYSTEMS VIA HETERODIENE CYCLOADDITIONS OF A 2-ACYL-2-ENOIC ACID

*Simon J. Coutts and Timothy W. Wallace**
Department of Chemistry and Applied Chemistry, University of Salford, Salford M5 4WT, U.K.

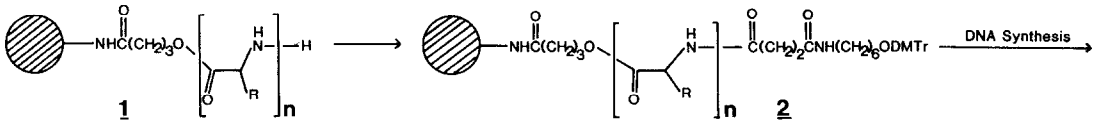
Chromone-3-carboxylic acid reacts with alkoxyalkenes to give cycloadducts which, on heating with alkanols or water, give functional 1,5-dicarbonyl systems, the sequence being potentially general for 2-acyl-2-enoic acids.



Tetrahedron Lett.28,5199(1987)

THE SOLID PHASE SYNTHESIS OF OLIGONUCLEOTIDES CONTAINING A 3'-PEPTIDE MOIETY.

J. Haralambidis, L. Duncan and G.W. Tregear
Howard Florey Institute, University of Melbourne, Parkville, Victoria 3052, Australia.



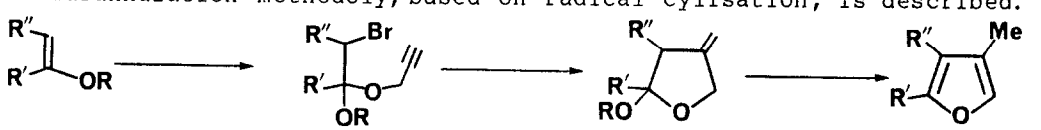
A peptide is synthesized on derivatized CPG to give 1, which is then reacted with a linker molecule to give 2 on which oligonucleotide synthesis is performed.

Tetrahedron Lett.28,5203(1987)

Furannulation via Radical Cyclisation

A. Srikrishna* and K.C. Pullaiah
Department of Organic Chemistry, Indian Institute of Science
Bangalore - 560 012 INDIA.

A furannulation methodoly, based on radical cylisation, is described.

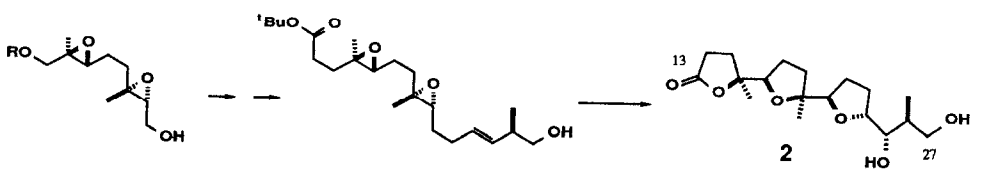


Tetrahedron Lett.28,5205(1987)

STUDIES IN POLYETHER SYNTHESIS USING POLYEPOXIDE CYCLISATIONS.

Ian Paterson*, Ian Boddy, and Ian Mason, University Chemical Laboratory, Lensfield Road, Cambridge CB2 1EW, UK

Acid-catalysed directed cyclisation of mono-, di-, and triepoxy t-butyl ester derivatives is used for the asymmetric synthesis of various polyether-type fragments including a C_{13}-C_{27} fragment of etheromycin.



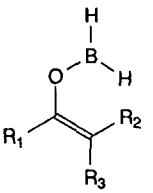
Tetrahedron Lett.28,5209(1987)

A FORCE FIELD MODEL FOR BORON ENOLATES

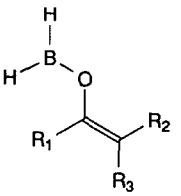
J. M. Goodman, Ian Paterson, and S. D. Kahn, University Chemical Laboratory, Lensfield Road, Cambridge CB2 1EW, U.K.

MM2 parameters for boron enolates have been derived from ab initio MO studies of the model systems shown:

S-*cis*



S-*trans*



Tetrahedron Lett.28,5213(1987)

NOVEL SYNTHESIS OF HETEROAROMATIC CONTAINING ELECTROACTIVE POLYAROMATICS OF KNOWN LINKAGES, ORDER, TOPICITY AND STOICHIMETRY.

Andrew Pelter, Martin Rowlands and Ieuan H. Jenkins,
Department of Chemistry, University College of Swansea, Swansea SA2 8PP, U.K.