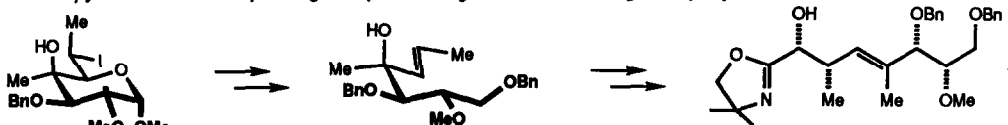
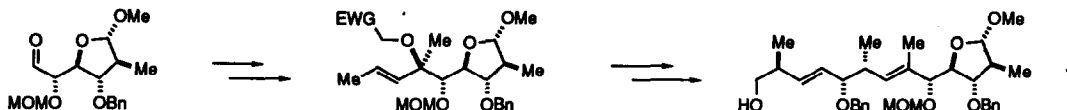
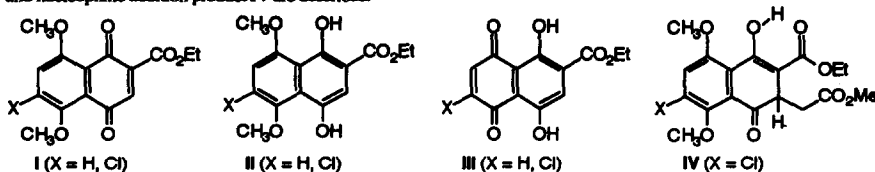


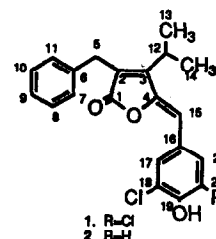
DIASTEREOSELECTIVE [2,3] WITTIG REARRANGEMENT OF CARBOHYDRATE-DERIVED TERTIARY ALLYLIC ETHERS. 1.**SYNTHESIS OF THE C₁₁-C₁₈ SUBUNIT OF HERBIMYCIN A FROM D-GLUCOSE.** Jill E. Eshelman, Janet L. Epps and James Kallmerten, Department of Chemistry, Syracuse University, Syracuse NY 13244-4100 USA*Intermediate 1, comprising the C₁₁-C₁₈ subunit of herbimycin A, is prepared by reductive fragmentation of a D-glucose-derived iodopyranose and subsequent sigmatropic homologation of the resulting tertiary allylic alcohol.***DIASTEREOSELECTIVE [2,3] WITTIG REARRANGEMENT OF CARBOHYDRATE-DERIVED TERTIARY ALLYLIC ETHERS. 2.****SYNTHESIS OF AN ADVANCED RAPAMYCIN INTERMEDIATE FROM D-GLUCOSE.** Ny Sin and James Kallmerten, Department of Chemistry, Syracuse University, Syracuse NY 13244-4100 USA*The 13-carbon rapamycin intermediate 1 has been prepared by an iterative sigmatropic sequence incorporating the diastereoselective [2,3] Wittig rearrangement of a D-glucofuranose-derived tertiary allylic ether.***DIRECTABLE REGIOCHEMISTRY IN NAPHTHAZARINS VIA THE USE OF MASKED DERIVATIVES** J. L. Bloomer* and K. W. Staglino Temple University, Department of Chemistry, Philadelphia, PA 19122*The synthesis of the masked naphthazarin I is reported and its conversion to the masked leuconaphthazarin II, free naphthazarin III and nucleophilic addition product IV are described.***NOSTOCLIDE I AND II, EXTRACELLULAR METABOLITES FROM A SYMBIOTIC CYANOBACTERIUM, NOSTOC SP. FROM THE LICHEN PELTIGERA CANINA.**

Xuemin Yang and Yuzuru Shimizu*

Department of Pharmacognosy and Environmental Health Sciences, College of Pharmacy, The University of Rhode Island, Kingston, R.I. 02881.

Jorge Rios Steiner and Jon Clardy*

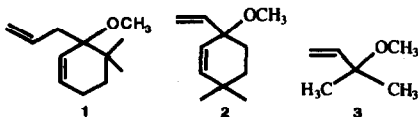
Department of Chemistry, Baker Laboratory, Cornell University, Ithaca, N.Y. 14853-1301

Two novel chlorine-containing metabolites were isolated from a lichen blue-green alga.

REGIOSELECTIVITY IN GAS-PHASE ELIMINATION REACTIONS: 1,2 VS 1,4 AND ALLENIC ION VS DIENIDE FORMATION

John J. Rabasco and Steven R. Kass*, Department of Chemistry, University of Minnesota, Minneapolis, MN 55455

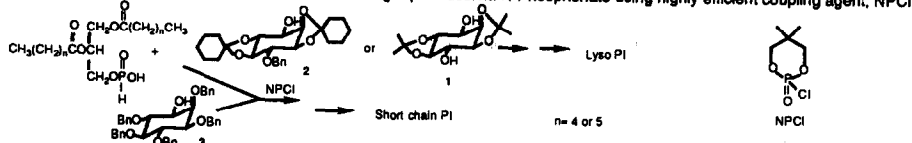
Competition between the different elimination pathways in deuterium labeled 1-allyl-1-methoxy-6,6-dimethyl-2-cyclohexene (1), 1-methoxy-4,4-dimethyl-1-vinyl-2-cyclohexene (2) and 3-methoxy-3-methyl-1-butene (3) have been investigated.



Synthesis of Short Chain Phosphatidylinositols

Venkata R. Garigapati and Mary F. Roberts, Dept of Chemistry, Boston College, Chestnut Hill, MA 02176 USA

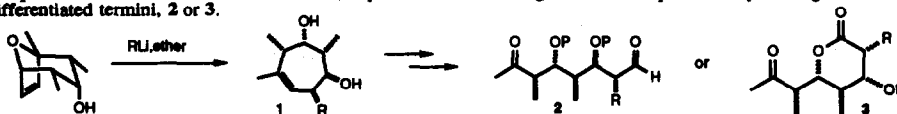
Short Chain Phosphatidylinositols were achieved in high quantities via H-Phosphonate using highly efficient coupling agent, NPCl



REGIOSELECTIVE NUCLEOPHILIC RING OPENING OF OXABICYCLIC COMPOUNDS.

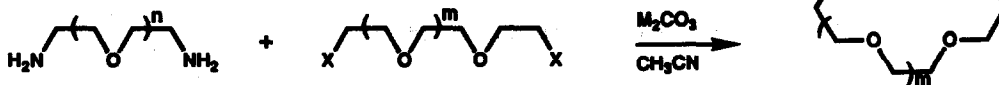
Mark Lantens*, Pauline Chiu
Department of Chemistry, University of Toronto, Toronto, Ontario Canada M5S 1A1

The effect of substituents on the regioselectivity of the ring opening reaction of oxabicyclo[3.2.1] compounds with organolithium reagents has been investigated. Attack of the nucleophile occurs distal to the bridgehead substituent, generating compounds with trisubstituted olefins, 1. Subsequent oxidative cleavage of the olefin provides acyclic fragments with differentiated termini, 2 or 3.



THE MOST CONVENIENT METHOD FOR THE PREPARATION OF ALIPHATIC CRYPTANDS

Krzysztof E. Krakowiak, Patrycja A. Krakowiak, and Jerald S. Bradshaw*
Department of Chemistry, Brigham Young University, Provo UT 84602-1022 U. S. A.

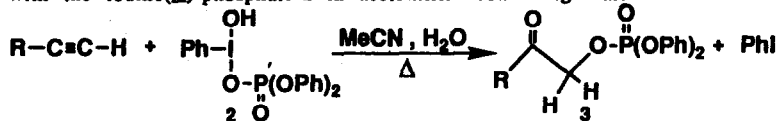


Tetrahedron Lett. 1993, 34, 779

REGIOSPECIFIC CONVERSION OF TERMINAL ALKYNES TO KETOL PHOSPHATES WITH AN IODINE(III)-PHOSPHATE REAGENT

Gerald F. Koser*, Xiao Chen, Kuanchiang Chen and Guoping Sun
Department of Chemistry, The University of Akron, Akron, Ohio 44325 U.S.A.

Various terminal alkynes were converted regiospecifically to ketol phosphates 3 with the iodine(III)-phosphate 2 in acetonitrile containing water.

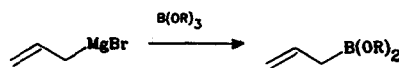


Tetrahedron Lett. 1993, 34, 783

Allylboronic Ester Synthesis: A Mechanistic Study

George W. Kabalka* and R. David Pace
Department of Chemistry, University of Tennessee,
Knoxville, Tennessee 37996-1600

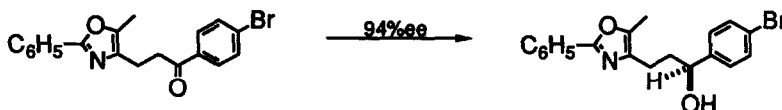
The selective formation of allylboronic esters via the allylation of trialkylborates using allylmagnesium bromide was found to be temperature dependent. At -78°C , allylmagnesium bromide reacts cleanly with trisopropylborate to provide allyldiisopropoxyborane.



Tetrahedron Lett. 1993, 34, 785

Enantioselective Oxazaborolidine Reduction of Ketones Containing Heteroatoms George J. Quallich* and Teresa M. Woodall
Process Research and Development, Central Research Division, Pfizer Inc., Groton, CT 06340

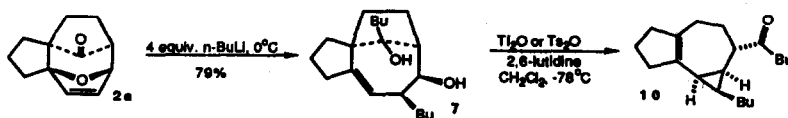
Ketones which contain heteroatoms, particularly nitrogen, can be enantioselectively and catalytically reduced with chiral oxazaborolidines in the presence of excess borane.



Tetrahedron Lett. 1993, 34, 789

AN INTRAMOLECULAR 4+3 CYCLOADDITION-VINYLOGOUS GROB FRAGMENTATION ROUTE TO A TRICYCLO[6.3.0.0^{2,4}] UNDECENE RING SYSTEM. Michael Harmata* and Saleh Elahmad, Department of Chemistry, University of Missouri-Columbia, Columbia, Missouri 65211 USA

Treatment of 4+3 cycloadduct 2a with excess *n*-BuLi followed by triflic anhydride results in the formation of 10.

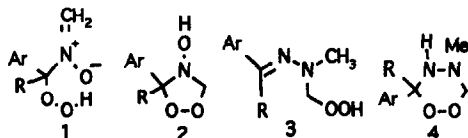


INTERMEDIATES IN THE DYE-SENSITIZED PHOTO-OXYGENATION OF NITRONES AND HYDRAZONES

Tetrahedron Lett. 1993, 34, 793

Ihsan Erden,* Albert Griffin, James R. Keefe and Vibeke Brinck-Kohn
San Francisco State University, Department of Chemistry and Biochemistry, San Francisco, CA 94132

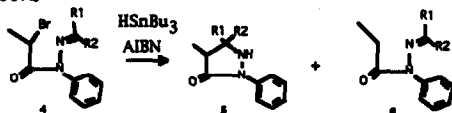
In the dye-sensitized photooxygenation of C-aryl nitrones and hydrazones short-lived intermediates of the type 1,2,3,4, respectively, are observed. The structures of these intermediates clearly limit the mechanistic possibilities for the reactions of these compounds with $^1\text{O}_2$.



FREE RADICAL CYCLIZATIONS LEADING TO NITROGEN HETEROCYCLES. II. 2-PHENYLPYRAZOLIDIN-3-ONES VIA TRIBUTYLSTANNYL HYDRIDE REACTION WITH ALPHA-BROMOACETYLATED PHENYLHYDRAZONES

Tetrahedron Lett. 1993, 34, 797

John L. Belletire,* Chad E. Hagedorn, Douglas M. Ho, Jeanette Krause
Department of Chemistry, University of Cincinnati
Cincinnati, OH 45221-0172



AN EFFICIENT PREPARATION OF (+)-TRANS-2-(α -CUMYL)CYCLOHEXANOL ((+)-TCC): A PRACTICAL ALTERNATIVE TO (+)-8-PHENYLMENTHOL.

Tetrahedron Lett. 1993, 34, 801

Daniel L. Comins* and James M. Salvador, Department of Chemistry, North Carolina State University, Raleigh, NC 27695-8204 USA.

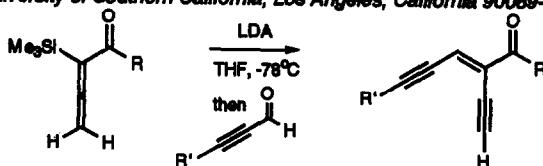
An efficient preparation and resolution of *trans*-2-(α -cumyl)cyclohexanol gives the (+)-enantiomer in three steps from cyclohexene oxide.



A NEW SYNTHETIC APPROACH TO ENEDIYNES RELATED TO THE NEOCARZINOSTATIN CHROMOPHORE FROM α -TRIMETHYLSILYL α -ALLENYL CARBONYL COMPOUNDS

Tetrahedron Lett. 1993, 34, 805

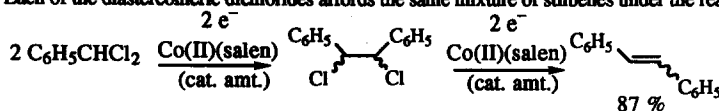
Nicos A. Petasis* and Kurt A. Teets
Department of Chemistry, University of Southern California, Los Angeles, California 90089-0744



Conversion of Benzal Chloride to Stilbene by Electrogenerated Cobalt(II)(Salen). A Doubly Electrocatalytic Process
 Albert J. Fry,* U. Nilantha Sirisoma, and Agnes S. Lee, Hall-Atwater Laboratory of Chemistry, Wesleyan University, Middletown, CT 06459

Tetrahedron Lett. **1993**, *34*, 809

Benzal chloride is converted to a mixture consisting primarily of *cis*- and *trans*-stilbene by the action of electrochemically generated cobalt(II)(salen). The process involves a sequence involving electrocatalytic conversion of benzal chloride to a mixture of *meso*- and *dl*-1,2-dichloro-1,2-diphenylethane, followed by electrocatalyzed conversion of the latter to the stilbenes. Each of the diastereomeric dichlorides affords the same mixture of stilbenes under the reaction conditions.

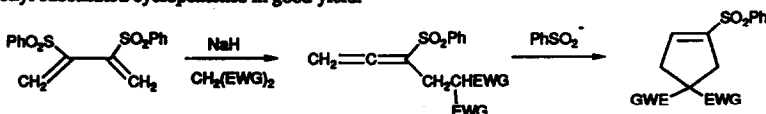


[4+1]-ANIONIC ANNULATION APPROACH TO PHENYL-SULFONYL SUBSTITUTED CYCLOPENTENES

Tetrahedron Lett. **1993**, *34*, 813

Albert Padwa* and Michelle A. Filipkowiak
 Department of Chemistry, Emory University Atlanta, Georgia 30322 USA

2,3-Bis(phenylsulfonyl)-1,3-butadiene undergoes a [4+1]-annulation reaction with a variety of soft carbanions to give phenylsulfonyl substituted cyclopentenes in good yield.

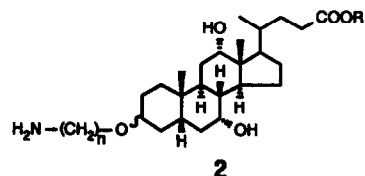


PREPARATION OF 3 α - AND 3 β -(ω -AMINOALKOXY)-7 α ,12 α -DIHYDROXY-CHOLANOIC ACID ESTERS: VERSATILE SHUTTLES FOR DRUG TARGETING

Tetrahedron Lett. **1993**, *34*, 817

G. Wess*, W. Kramer, A. Enhsen, H. Glombik, K.-H. Baringhaus, K. Bock, H. Kleine, W. Schmitt
 Hoechst AG, Pharma Forschung, Postfach 800320, D-6230 Frankfurt-80

3 α - and 3 β -(ω -aminoalkoxy)-cholanoic acid esters **2** are prepared from cholic acid

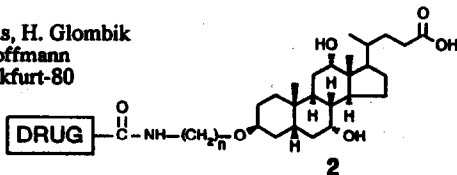


SYNTHESIS OF BILE ACID-DRUG CONJUGATES: POTENTIAL DRUG-SHUTTLES FOR LIVER SPECIFIC TARGETING

Tetrahedron Lett. **1993**, *34*, 819

G. Wess*, W. Kramer, G. Schubert, A. Enhsen, K.-H. Baringhaus, H. Glombik, S. Müller, K. Bock, H. Kleine, M. John, G. Neckermann, A. Hoffmann
 Hoechst AG, Pharma Forschung, Postfach 800320, D-6230 Frankfurt-80

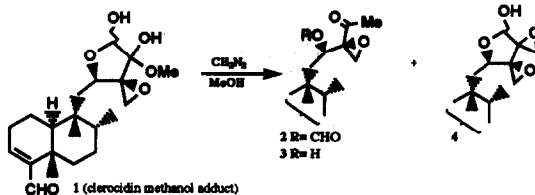
Bile acid-drug conjugates **2** are prepared with chlorambucil, HR 780 and an oxaprolinone peptide



REACTION OF DIAZOMETHANE WITH CLEROCIDIN. Preparation of New Clerodane Diterpenoid Derivatives

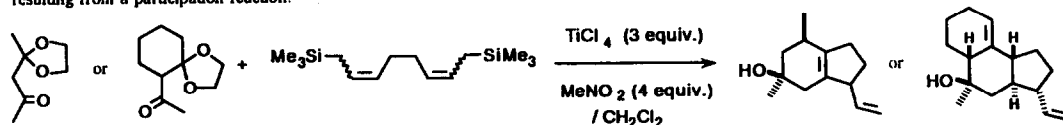
J.P. Jacquet,* D. Bouzard, and P. Remuzon. Bristol-Myers Squibb Pharmaceutical Research Institute, BP 62, 77422 Marne-la-Vallée Cedex 2, FRANCE

Reaction of diazomethane with 1 gave an open form 2 and the diepoxide 4.


Dialkylation of β and γ -Diketone Monoethyleneketals by 1,8-Bis(trimethylsilyl)-2,6-octadiene.

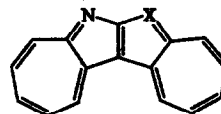
H        , Arlette Tubul and Maurice Santelli*

Laboratoire de Synth  se Organique associ   au CNRS, Centre de St-J  rome, Av. Esc. Normandie-Niemen, 13397, Marseille Cedex 13-France.

 Dialkylation of β -diketone monoethyleneketals by 1,8-bis(trimethylsilyl)-2,6-octadiene leads to bi- or tricyclic alcohols (one stereoisomer) resulting from a participation reaction.

SYNTHETIC STUDIES OF NOVEL 6-AZA- AND 6,7-DIAZA-AZULENO[1,2-a]AZULENES

 Makoto Nitta,* Yukio Iino, Tomoki Sugiyama, and Akira Akaogi
 Department of Chemistry, School of Science and Engineering, Waseda University, Shinjuku-ku, Tokyo 169, Japan

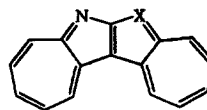
The title compounds were synthesized by thermal reaction of [(azulen-2-yl)imino]phosphorane and [(1-azaazulen-2-yl)imino]phosphorane with 2-bromotropone or alternative methods.



X=CH; X=N

STRUCTURAL AND CHEMICAL PROPERTIES OF 6-AZA- AND 6,7-DIAZA-AZULENO[1,2-a]AZULENES

 Makoto Nitta,* Yukio Iino, Tomoki Sugiyama, and Azumao Toyota*
 Department of Chemistry, School of Science and Engineering, Waseda University, Shinjuku-ku, Tokyo 169, Japan; *Department of Chemistry, Faculty of General Education, Yamagata University, Kojirakawa, Yamagata 990, Japan

 The NMR and electronic spectral studies including PPP-type MO calculation of the title compounds revealed that there are little contribution of peripheral 18- π electron conjugation but those are rather composed of two azulene-type π -systems. The both compounds existing as cationic and dicationic species in acidic media are also studied.


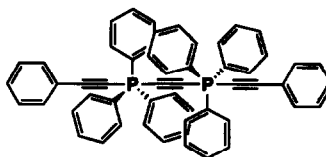
X=CII; X=N

Preparation of Linear Phosphorus Compound Containing Two Hypervalent Centers. Acetylene-bis[triphenyl(phenylethynyl)-phosphorane]

Tetrahedron Lett. 1993, 34, 839

Satoshi Ogawa, Yoko Tajiri, and Naomichi Furukawa*
Department of Chemistry, University of Tsukuba, Tsukuba, Ibaraki 305, Japan

A new linear acetylide-connected bis-phosphorane, acetylene-bis[triphenyl(phenylethynyl)phosphorane] was synthesized.



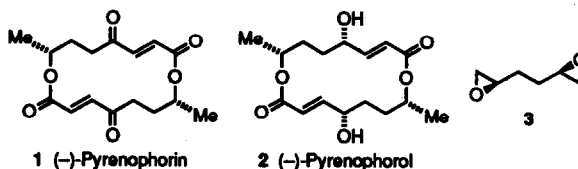
Preparation of Macrodilides via a Common Chiral Building Block. Total Synthesis of (-)-Pyrenophorin and (-)-Pyrenophorol

Tetrahedron Lett. 1993, 34, 841

Nobuo Machinaga and Chihiro Kibayashi*

Tokyo College of Pharmacy, Horinouchi, Hachioji, Tokyo 192-03, Japan

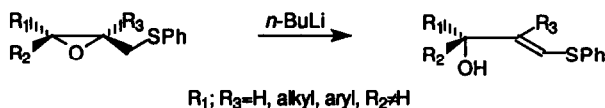
Macrodilides (-)-pyrenophorin (1) and (-)-pyrenophorol (2) have been synthesized utilizing the C_2 symmetric (*R,R*)-diepoxide 3 as a common enantiopure chiral building block.



A STEREOSELECTIVE ROUTE TO *E*-3-HYDROXYALKENYL PHENYL SULFIDES

Tetrahedron Lett. 1993, 34, 845

Seiichi Takano,* Yoshiaki Sugihara, and Kunio Ogasawara
Pharmaceutical Institute, Tohoku University, Aobayama, Sendai 980, Japan

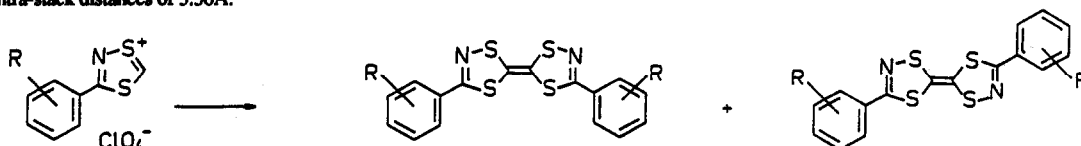


The First Diazatetrathiafulvalenes

Tetrahedron Lett. 1993, 34, 847

Suk-Ling Chu, Kwok-Fai Wai, Ting-Fong Lai and Michael P. Sammes
Department of Chemistry, the University of Hong Kong, Pokfulam Road, Hong Kong

Preparation of the title compounds is described. X-Ray analysis of the *trans* isomer ($R = H$) reveals stacked, planar molecules with intra-stack distances of 3.36Å.

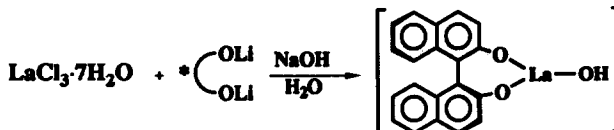


Catalytic Asymmetric Nitroaldol Reactions.**A New Practical Method for the Preparation of the Optically Active Lanthanum Complex**

Hiroaki Sasai, Takeyuki Suzuki, Norie Itoh, and Masakatsu Shibasaki*

Faculty of Pharmaceutical Sciences, University of Tokyo, Hongo, Bunkyo-ku, Tokyo 113, Japan

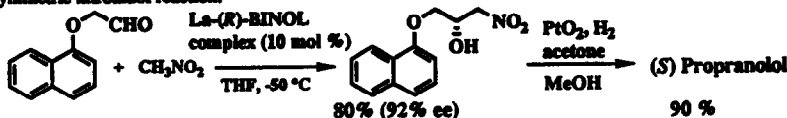
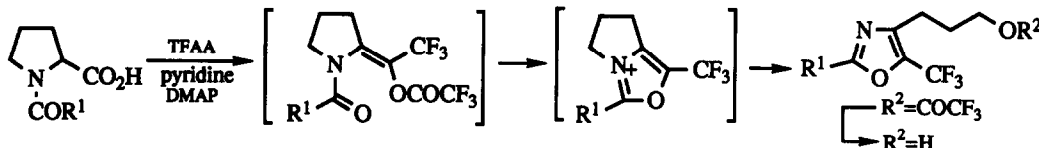
The optically active La complex, which catalyzes asymmetric nitroaldol reactions, was found to be readily prepared from $\text{LaCl}_3 \cdot 7\text{H}_2\text{O}$. The presence of water, LiCl or LiBr and an alkali metal hydroxide was essential for the formation of the effective lanthanum binaphthoxide complex.

**Catalytic Asymmetric Nitroaldol Reaction:****An Efficient Synthesis of (S) Propranolol Using Lanthanum Binaphthol Complex**

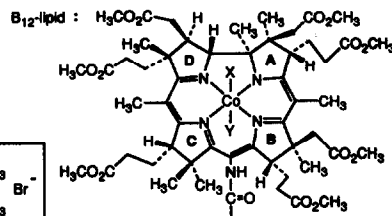
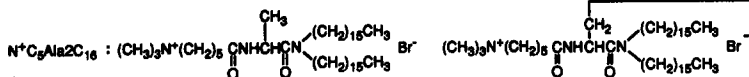
Hiroaki Sasai, Norie Itoh, Takeyuki Suzuki and Masakatsu Shibasaki*

Faculty of Pharmaceutical Sciences, University of Tokyo, Hongo, Bunkyo-ku, Tokyo 113, Japan

(S) Propranolol was conveniently synthesized in a highly enantioselective manner by the lanthanum-(R)-(+)-binaphthol complex catalyzed asymmetric nitroaldol reaction.

**Unexpected Product from the Dakin-West Reaction of N-Acylprolines using Trifluoroacetic Anhydride:****A Novel Access to 5-Trifluoromethyloxazoles**Masami Kawase,^a Hiroshi Miyamae,^b Mariko Narita,^b and Teruo Kurihara^bFaculty of Pharmaceutical Sciences^a and Faculty of Science,^b Josai University, 1-1 Keyakidai, Sakado-shi, Saitama 350-02, Japan**AGGREGATION BEHAVIOR AND REACTIVITY OF HYDROPHOBIC VITAMIN B₁₂ COVALENTLY BOUND TO LIPID IN AQUEOUS MEDIA**Yukito Murakami,* Yoshio Hiseeda, Akihiro Ogawa, Tetsuya Miyajima, Osamu Hayashida, and Teruhisa Ohno
Department of Chemical Science and Technology, Faculty of Engineering, Kyushu University, Fukuoka 812, Japan

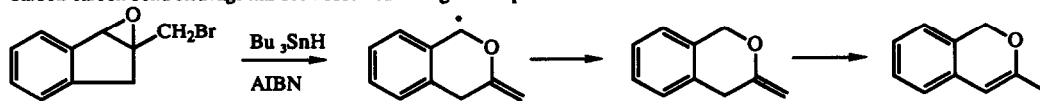
Co-vesicles of B₁₂-lipid and N⁺C₅Ala₂C₁₆ at a 1 : 50 molar ratio provided an anaerobic microenvironment in aqueous media under aerobic conditions.



RADICAL-INDUCED CLEAVAGES IN RING-FUSED EPOXIDES.

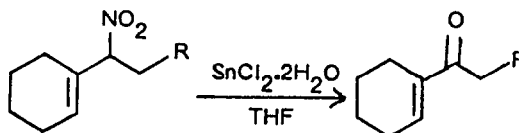
John A. Murphy* and Christopher W. Patterson, Department of Chemistry, University of Nottingham, Nottingham NG7 2RD.

Carbon-carbon bond cleavage has been observed in ring-fused epoxides where stereoelectronic effects do not interfere.

**TIN(II) CHLORIDE DIHYDRATE REDUCTION OF β,δ -UNSATURATED NITROALKENES**

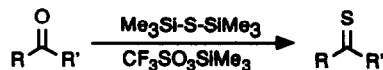
Nalin B Das, Jadab C Sarma, Ram P Sharma* and Manobjyoti Bordoloi

Natural Products Chemistry Division
Regional Research Laboratory (CSIR)
Jorhat 785 006, Assam
INDIA

**BIS(TRIMETHYLSILYL)SULFIDE BASED THIONATION OF CARBONYL COMPOUNDS: SYNTHESIS OF THIOKETONES**

A. Degl'Innocenti^a, A. Capperucci^b, A. Mordini^c, G. Reginato^c, A. Ricci^{c,d}, F. Correta^b.

^aDipartimento di Chimica, Via N. Sauro 85, 85100 Potenza (Italy). ^bDipartimento di Chimica Organica and ^cCentro CNR sulla Chimica e la Struttura dei Composti Eterociclici, Via G. Capponi 9, 50121 Firenze (Italy). ^dDipartimento di Chimica Organica, Viale Risorgimento 4, 40136 Bologna (Italy).



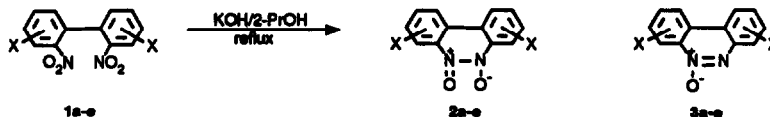
Thioketones may be conveniently obtained by silyl triflate promoted bis(trimethylsilyl)sulfide thionation of ketones.

R, R' = alkyl, cyclic, α,β -unsaturated

A PRACTICAL SYNTHESIS OF SUBSTITUTED BENZO(e)CINNOLINE-N,N'-DIOXIDES AND N-OXIDES.

Cristina Paradisi^a, Guadalupe Gonzalez-Trueta, Gianfranco Scorrano, Centro Meccanismi di Reazioni Organiche del CNR, Dipartimento di Chimica Organica dell'Universita' di Padova, v. Marzolo 1, 35131 Padova, Italy

Depending on the equivalents of KOH used and on the reaction time N,N'-dioxides (2) or N-oxides (3) are formed in satisfactory yields.

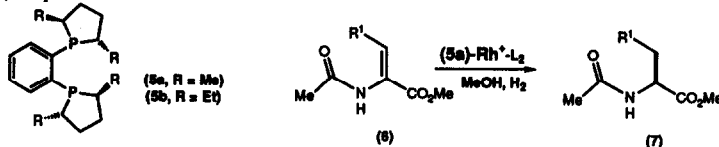


a: X = H; b: X = 5,5'-Cl₂; c: X = 4,4'-(CH₃)₂; d: X = 4,4'-(CF₃)₂; e: X = 5,5'-(2-PrO)₂

**THE STEREOCHEMISTRY OF ENAMIDE INTERMEDIATES IN
DUPHOS-RH(I) CATALYSED ASYMMETRIC HYDROGENATION**

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Stereochemical aspects of the title reaction (below) were investigated for the (S,S)-Me-DuPHOS ligand **5a**, largely by NMR examination of Ir complexes. They were found to behave in an analogous fashion to that established for P-aryl diphosphine rhodium(I) complexes.

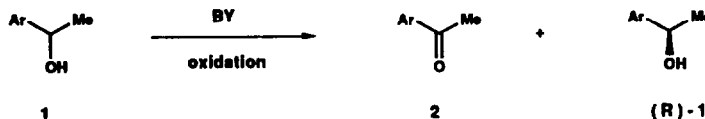


**KINETIC RESOLUTION OF 1-ARYL AND 1-HETEROARYL
ETHANOLS BY OXIDATION WITH BAKER'S YEAST.**

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The kinetic resolution of racemic 1-aryl and 1-heteroaryl ethanols via oxidation by Baker's yeast to give the R-enantiomer is reported.



**COPOLYMERISATION OF 5,6-DIHYDROXYINDOLE AND 5,6-DIHYDROXY-
INDOLE-2-CARBOXYLIC ACID IN MELANOGENESIS: ISOLATION OF A
CROSS-COUPLING PRODUCT**

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Co-oxidation of 5,6-dihydroxyindole and its 2-carboxy derivative under biomimetic conditions afforded, besides homopolymers of the two indoles, a mixed-type dimer which was isolated in the O-acetyl form and formulated as **3**.

