

GRAPHICAL ABSTRACTS

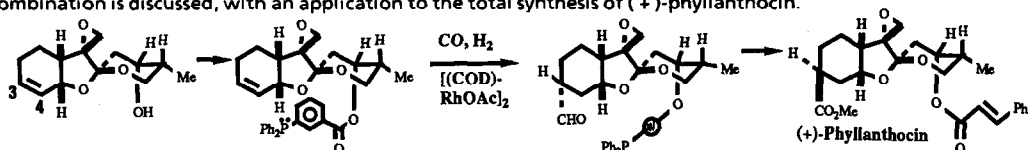
Tetrahedron Lett. 27, 4237 (1986)

INTRAMOLECULAR PHOSPHINE-DIRECTED HYDROFORMYLATION. APPLICATION TO THE TOTAL SYNTHESIS OF (+)-PHYLLANTHOCIN

Steven D. Burke* and Jeffery E. Cobb

Department of Chemistry, University of South Carolina, Columbia, SC 29208 USA

Stereo- and regioselective intramolecular guidance of Rh(I)-catalyzed hydroformylation by a phosphine ligand-spacer combination is discussed, with an application to the total synthesis of (+)-phyllanthocin.

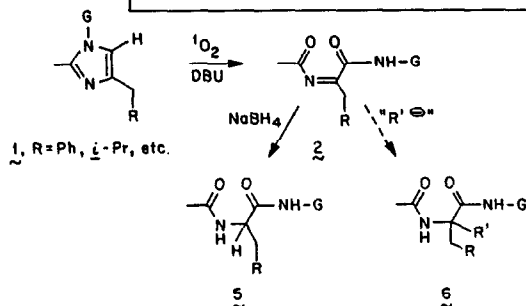


PREPARATION OF (+)- α -ALKYLATED AMINO ACID DERIVATIVES VIA IMIDAZOLES

Bruce H. Lipshutz*, Bret Huff and Wayne Vaccaro

Department of Chemistry, University of California, Santa Barbara, CA 93106 USA

α -Alkylated amino acids **6** are formed via addition of organometallics to acyl imines **2** (G = OCH₃) in high yields from imidazoles **1**.



Tetrahedron Lett. 27, 4241 (1986)

SYNTHESIS OF ANTHRACYCLINE C-GLYCOSYL ISOMERES

Edward M. Acton¹, Kenneth J. Ryan, and Michael Tracy

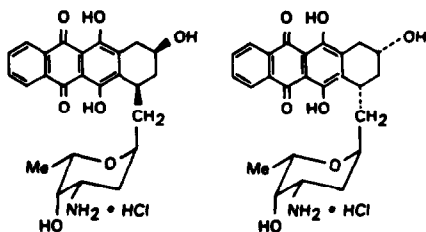
Bio-Organic Chemistry Laboratory

SRI International, Menlo Park, California 94025, USA

Satish K. Arora

Drug Dynamics Institute, College of Pharmacy

The University of Texas at Austin, Texas 78712



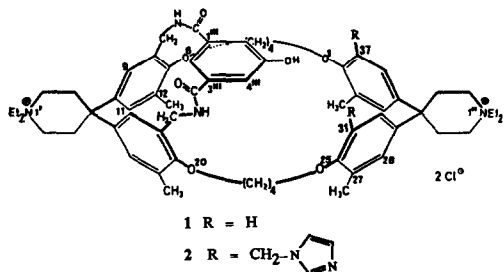
Tetrahedron Lett. 27, 4245 (1986)

PROGRESS TOWARDS ARTIFICIAL HYDROLASES: SYNTHESIS OF A WATER-SOLUBLE CYCLOPHANE WITH A PHENOL CAP

Gregor Schürmann and François Diederich*

Department of Chemistry and Biochemistry, University of California, Los Angeles, CA 90024 and Max-Planck-Institute for Medical Research, Abteilung Organische Chemie, D-6900 Heidelberg, FRG.

The synthesis of the macrobicyclic host **1** on the way to the water-soluble artificial esterase **2** is described. Host **1** has a phenolic nucleophile atop the binding cavity and complexes aromatic guests in aqueous solution.

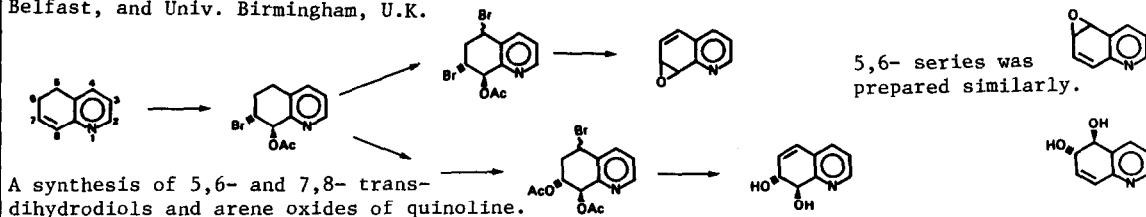


Tetrahedron Lett. 27, 4249 (1986)

ARENES OXIDES AND TRANS-DIHYDRODIOLS OF QUINOLINE

S.K. Agarwal, D.R. Boyd, H.P. Porter, W.B. Jennings, S.J. Grossman and D.M. Jerina, NIH, Bethesda, MD, Departments of Chemistry, Queens Univ., Belfast, and Univ. Birmingham, U.K.

Tetrahedron Lett. 27, 4253 (1986)

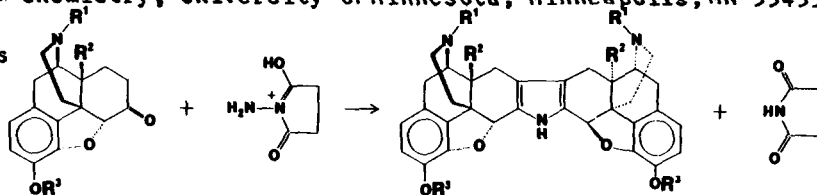


A NOVEL PYRROLE SYNTHESIS VIA REACTION OF KETONES WITH N-AMINOIMIDES

A.W. Lipkowski, H. Nagase, P.S. Portoghesi*
Department of Medicinal Chemistry, University of Minnesota, Minneapolis, MN 55455

Tetrahedron Lett. 27, 4257 (1986)

A new, mild synthesis of pyrroles using N-aminoimides and ketones (morphinans)

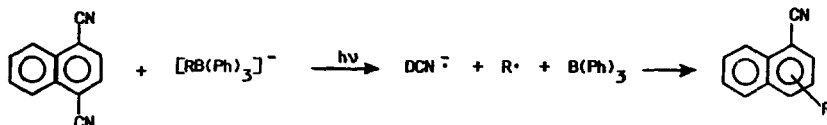


FREE RADICAL FORMATION IN THE PHOTOOXIDATIVE ALKYLATIONS OF DICYANONAPHTHALENE WITH ALKYLTRIPHENYLBORATE SALTS

J. Y. Lan and Gary B. Schuster*
Department of Chemistry, University of Illinois, Urbana, IL 61801-3731 USA

Tetrahedron Lett. 27, 4261 (1986)

One electron oxidation of alkyltriphenylborate salts leads to carbon-boron bond cleavage and the formation of free alkyl radicals.

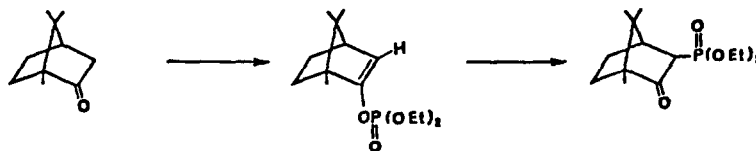


THE 1,3-MIGRATION OF PHOSPHORUS FROM OXYGEN TO CARBON: A NEW SYNTHESIS OF β -KETOPHOSPHONATES FROM ENOL PHOSPHATES

Gerald B. Hammond, Theodora Calogeropoulou and David F. Wiemer*
Department of Chemistry, University of Iowa, Iowa City, Iowa 52242

Tetrahedron Lett. 27, 4265 (1986)

Cyclic enol phosphates can be converted to β -ketophosphonates by treatment with strong base.



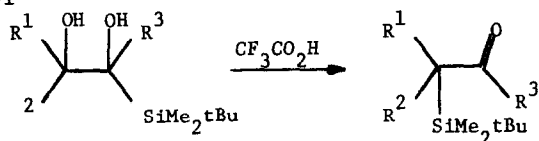
THE SILAPINACOL REARRANGEMENT. CONVERSION OF
 α,β -DIHYDROXYSILANES INTO α -SILYL CARBONYL COMPOUNDS

Robert F. Cunico

Department of Chemistry, Northern Illinois University, DeKalb, IL 60115 USA

Treatment of α,β -dihydroxy-*t*-butyldimethylsilanes with trifluoroacetic acid affords α -*t*-butyldimethylsilyl aldehydes and ketones.

$R^1, R^2 = H$ or alkyl; $R^3 = H, \text{ alkyl, aryl}$



Tetrahedron Lett. 27, 4269 (1986)

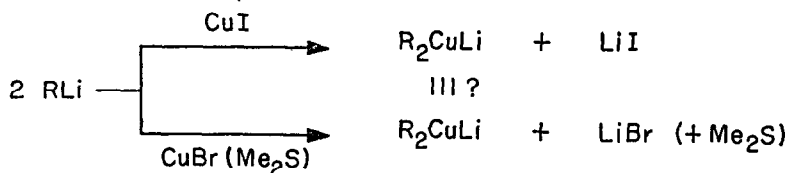
FURTHER INSIGHT INTO LOWER ORDER CUPRATE CHEMISTRY;

ON THE USE OF $\text{CuBr}\cdot\text{Me}_2\text{S}$ VS CuI EN ROUTE TO R_2CuLi

Bruce H. Lipshutz*, Scott Whitney, Joseph A. Kozlowski and Curt Breneman

Department of Chemistry, University of California, Santa Barbara, CA 93106 USA

A caveat regarding the handling and use of $\text{CuBr}\cdot\text{Me}_2\text{S}$ as a precursor for lower order organocuprate formation.



Tetrahedron Lett. 27, 4273 (1986)

CLITOCINE, A NEW INSECTICIDAL NUCLEOSIDE FROM THE MUSHROOM

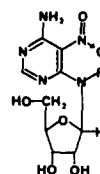
CLITOCYBE INVERSA

Isao Kubo*, Mujo Kim, William F. Wood and Hideo Naoki

Division of Entomology and Parasitology, College of Natural Resources, University of California, Berkeley, California 94720, U.S.A. Department of Chemistry, Humboldt State University, Arcata, California 95521, U.S.A.

Suntory Institute for Bioorganic Research, Shimamoto-cho, Mishima-gun, Osaka 618, Japan.

A new insecticidal nucleoside was isolated from the mushroom *Clitocybe inversa*.



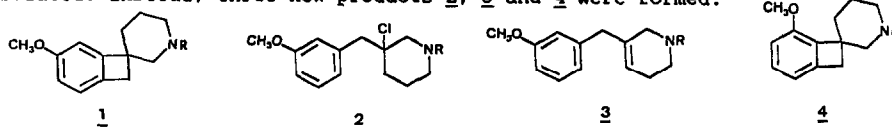
Tetrahedron Lett. 27, 4277 (1986)

REARRANGEMENT OF SPIRO[BENZOCYCLOBUTENE-1,3'-PIPERIDINES]

Georg von Sprecher* and Tammo Winkler

Research Department, Pharmaceuticals Division, CIBA-GEIGY Limited, 4002 Basel, Switzerland

Upon treating the methyl ether **1** with AlCl_3 in CH_2Cl_2 , the corresponding phenol was not isolated. Instead, three new products **2**, **3** and **4** were formed.



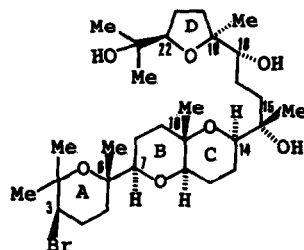
Tetrahedron Lett. 27, 4285 (1986)

Tetrahedron Lett. 27, 4287 (1986)

VENUSTATRIOL. A NEW, ANTI-VIRAL TRITERPENE TETRACYCLIC ETHER
FROM *LAURENCIA VENUSTA*

S. Sakemi and T. Higa,
Harbor Branch Foundation-SeaPharm Research Laboratories,
RR #1, Box 196, Fort Pierce, Florida 33450, USA
C.W. Jefford and G. Bernardinelli,
Department of Organic Chemistry, University of Geneva,
1211 Geneva 4, Switzerland

The absolute configuration of venustatriol was determined by X-ray.

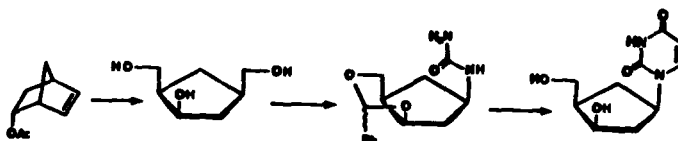


Tetrahedron Lett. 27, 4291 (1986)

A NOVEL APPROACH TO CARBOCYCLIC ANALOGUES OF NUCLEOSIDES

Michael Bodenteich and Herfried Griengl*

Institute of Organic Chemistry, Technical University Graz, Stremayrgasse 16, A-8010 Graz, Austria



Overall yield 32%, all compounds are racemic (one enantiomer given).

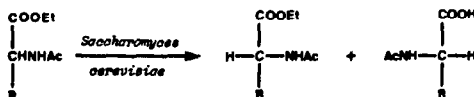
Tetrahedron Lett. 27, 4293 (1986)

ENANTIOSELECTIVE HYDROLYSIS BY BAKER'S YEAST

B. I. Glänzer, K. Faber and H. Griengl

Institute of Organic Chemistry, Technical University Graz, Stremayrgasse 16, A-8010 Graz, Austria

D-N-acetylamino acid esters were obtained by enantioselective hydrolysis of their racemates using fermenting baker's yeast.



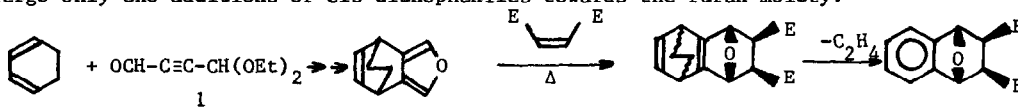
Tetrahedron Lett. 27, 4295 (1986)

A FACILE ACCESS TO MASKED ISOBENZOFURANS ; HIGH EXO-STEREOSELECTIVITY IN THE DIELS ALDER REACTIONS OF 4,7-DIHYDRO-4,7-ETHANOISOBENZOFURAN.

Dominique STEPHAN, Alain GORGUES* and André LE COQ

Laboratoire de Synthèse Organique, Université de Rennes, Beaulieu, France
Groupe de Chimie Organique et Bio-Organique, Université d'Angers, France

Three 4,7-dihydroisobenzofuran derivatives are prepared from 1. Among them, the title compound undergo only exo additions of cis-dienophiles towards the furan moiety.



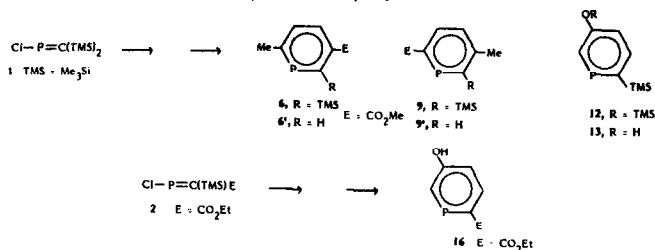
DIELS-ALDER REACTION WITH PHOSPHAALKENES. SYNTHESIS OF FUNCTIONALIZED λ^3 PHOSPHABENZENES.

P. Pellon, Y.Y.C. Yeung Lam Ko, P. Cosquer, J. Hamelin et R. Carrié.

Groupe de Recherches de Physicochimie Structurale, U.A. n° 704, Campus de Beaulieu, Avenue du Général Leclerc, 35042 RENNES CÉDEX (FRANCE).

Tetrahedron Lett. 27, 4299 (1986)

Aromatization of Diels-Alder adducts from 1,3 dienes and phosphalkenes 1 and 2 leads to different functionalized λ^3 phosphabenzenes.

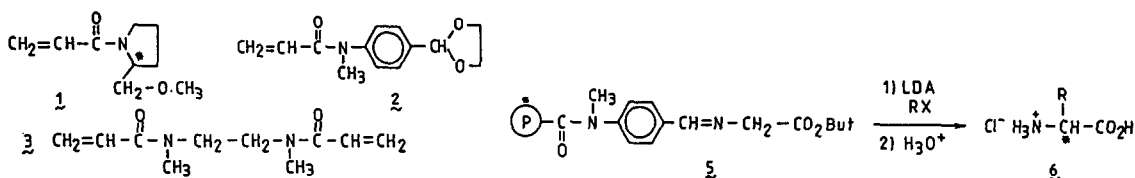


POLYACRYLIC CROSSLINKED RESINS WITH PENDANT CHIRALITY AS AUXILIARY IN SUPPORTED ASYMMETRIC SYNTHESIS

M. Calmes, J. Daunis*, R. Jacquier, G. NKUSI, J. Verducci and Ph. Viallefont.

Unité Associée au CNRS n°468 - Place E. Bataillon - 34060 Montpellier Cédex-France

Tetrahedron Lett. 27, 4303 (1986)

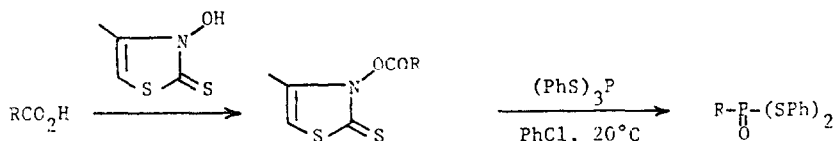


RADICAL DECARBOXYLATIVE PHOSPHORYLATION OF CARBOXYLIC ACIDS

Derek H.R. Barton*, Dominique Eridon and Samir Z. Zard

Institut de Chimie des Substances Naturelles, C.N.R.S., 91190 Gif-sur-Yvette, France

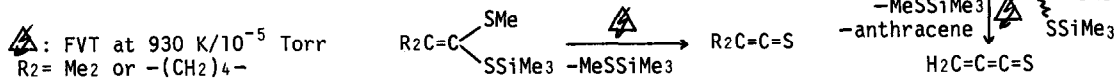
Tetrahedron Lett. 27, 4309 (1986)



A NOVEL ROUTE TO THIOKETENES BY FLASH VACUUM THERMOLYSIS OF Silylated Ketene Dithioacetals, SYNTHESIS OF PROPADIENETHIONE.

Yannick Vallée, Serge Masson, and Jean-Louis Ripoll*
Laboratoire de Chimie, Université de Caen, 14032 Caen, France.

Thioketenes were generated by thermal elimination of MeSSiMe3. This reaction, added to a $(4\pi + 2\pi)$ cycloreversion, led to propadienethione.

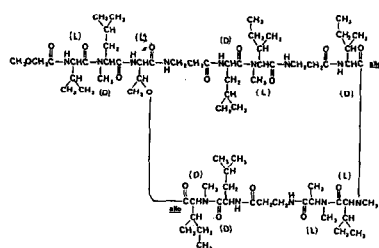


THEONELLAMINE B, A NOVEL PEPTIDAL Na,K-ATPASE INHIBITOR FROM AN OKINAWAN MARINE SPONGE OF THE GENUS THEONELLA
 H. Nakamura,*^a J. Kobayashi,^a Y. Nakamura^a, Y. Ohizumi,^a T. Kondo^b, Y. Hirata^c

^aMitsubishi-Kasei Institute of Life Sciences
 11 Minamiooya, Machida, Tokyo 194, Japan
^bChemical Instruments Center, Nagoya University
 Chikusa, Nagoya 464, Japan
^cFaculty of Pharmacy, Meijo University
 Tempaku, Nagoya 468, Japan

The structure of theonellamine B has been determined.

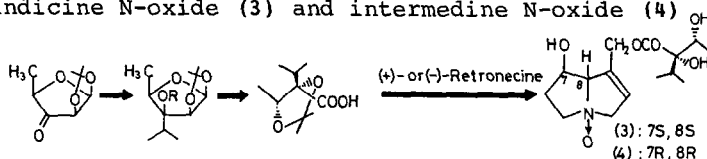
Tetrahedron Lett. 27, 4319 (1986)



THE TOTAL SYNTHESIS OF (-)-INDICINE N-OXIDE AND INTERMEDIATE N-OXIDE

Yoshio Nishimura,* Shinichi Kondo and Hamao Umezawa
 Institute of Microbial Chemistry, Shinagawa-ku, Tokyo 141, Japan

The total syntheses of (-)-indicine N-oxide (3) and intermedine N-oxide (4) have been achieved.

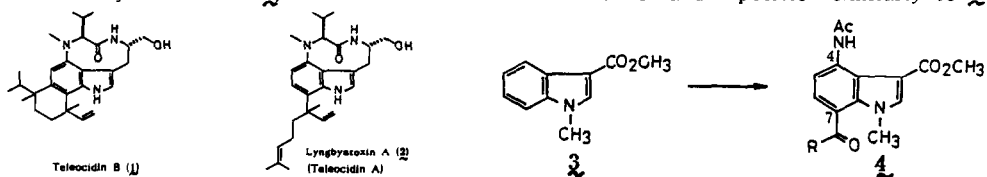


Tetrahedron Lett. 27, 4323 (1986)

SYNTHETIC STUDIES ON TELEOCIDIN I. REGIOSELECTIVE INTRODUCTION OF 4-AMINO AND 7-ACYL GROUPS ON INDOLE DERIVATIVE

Shin-ichi Nakatsuka,* Toshiya Masuda, Osamu Asano, Tomohiro Teramae, and Toshio Goto
 Laboratory of Organic Chemistry, Faculty of Agriculture, Nagoya University, Nagoya 464, Japan

3 was regioselectively derived to **4**, which contains substituents at 4- and 7-position similarly to **1** and **2**.

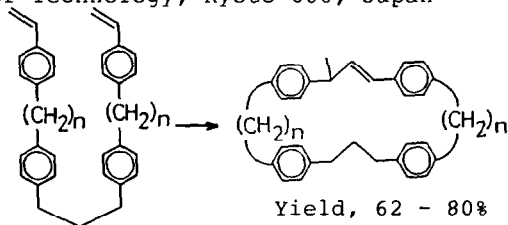


Tetrahedron Lett. 27, 4327 (1986)

SYNTHESIS OF [3.n.3.n]PARACYCLOPHANES

Jun Nishimura,* Noriyuki Yamada, Eiji Ueda, Akihiro Ohbayashi, and Akira Oku
 Department of Chemistry, Kyoto Institute of Technology, Kyoto 606, Japan

Synthesis of [3.n.3.n]paracyclophanes by cationic cyclization of styrene derivs.



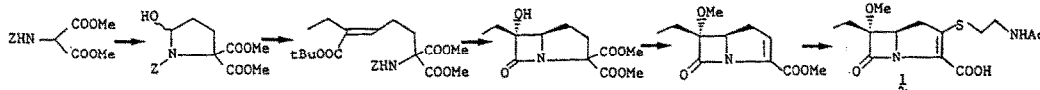
Tetrahedron Lett. 27, 4331 (1986)

Tetrahedron Lett. 27, 4335 (1986)

A TOTAL SYNTHESIS OF 6-METHOXY-epi PS-5

Takeo Yoshioka, Azuma Watanabe, Kunio Isshiki, Yasuo Fukagawa and Tomoyuki Ishikura. SANRAKU INC., Central Research Laboratories, 9-1 Johnan4-chome, Fujisawa 251, Japan.

6-Methoxy-epi PS-5 } was stereoselectively synthesized via a bicyclic β -lactam from dimethyl aminomalonate.

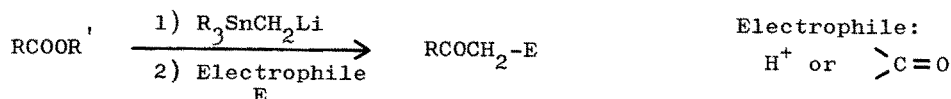


Tetrahedron Lett. 27, 4339 (1986)

THE REACTION OF α -STANNYLMETHYLLITHIUM WITH ESTERS

Tadashi Sato*, Hiroharu Matsuoka, Tsutomu Igarashi, and Eigoro Murayama
Department of Applied Chemistry, Waseda University, Ookubo 3, Shinjuku-ku, Tokyo 160, Japan

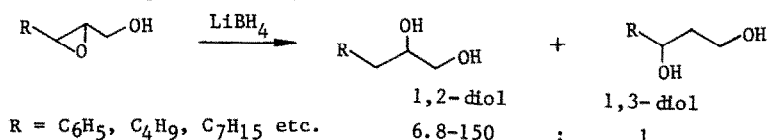
Preparation of ketonic compounds from esters.



Tetrahedron Lett. 27, 4343 (1986)

REGIOSELECTIVE TITANIUM MEDIATED REDUCTIVE OPENING OF 2,3-EPOXY ALCOHOLS

Li-xin Dai*, Bo-liang Lou, Ying-zhi Zhang, and Guang-zhong Guo
Shanghai Institute of Organic Chemistry, Academia Sinica, 345 Lingling Road, Shanghai 20032, China

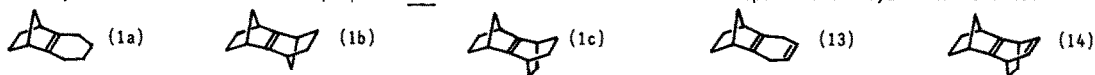


Tetrahedron Lett. 27, 4347 (1986)

SYNTHESIS OF POLYCYCLIC ALKENES VIA REDUCTIVE ELIMINATION OF β -DICYANO DERIVATIVES: A FACILE PREPARATION OF ANTI-SESQUINORBORNENE AND RELATED MOLECULES

Ottorino De Lucchi,* Nicoletta Piccolrovazzi, and Giorgio Modena
Centro Meccanismi di Reazioni Organiche del CNR; Dipartimento di Chimica Organica, via Marzolo 1, 35131 Padova, Italy

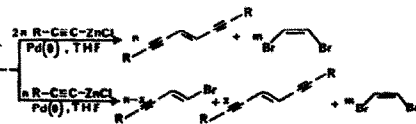
Anti-Sesquinorbornene **1b**, the hitherto unknown related unsaturated molecules **1a,c** and the dienes **13** and **14** are among the endocyclic alkenes which can be prepared via reductive elimination of the respective β -dicyano derivatives.



Tetrahedron Lett. 27, 4351 (1986)

SYNTHESIS OF STEREOISOMERICALLY PURE (E)-1,5-DIYN-3-ENES AND (E)-1-BROMO-3-YN-1-ENES BY DIASTEREOSELECTIVE PALLADIUM-CATALYZED CROSS COUPLING REACTION OF 1-ALKYNYLZINC CHLORIDES WITH A STEREOISOMERIC MIXTURE OF 1,2-DIBROMOETHYLENE. Adriano Carpita and Renzo Rossi
Dipartimento di Chimica e Chimica Industriale-Università di Pisa
via Risorgimento 35-56100 PISA-ITALY

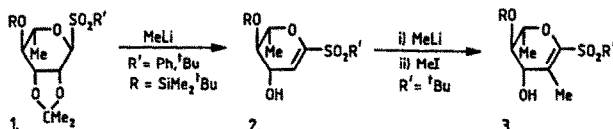
(E)-1,5-Diyn-3-enes and (E)-1-bromo-3-yn-1-enes have been stereoselectively synthesized starting from a diastereoisomeric mixture of 1,2-dibromoethylene.



Tetrahedron Lett. 27, 4355 (1986)

VINYL SULPHONES DERIVED FROM THIOGLYCOSIDES: SYNTHESIS AND ALKYLATION
Joseph F. Cassidy and J. Michael Williams*
Department of Chemistry, University College, Swansea SA2 8PP, Wales, U.K.

1-Sulphonyl glycols such as (2), prepared from (1), did not undergo conjugate addition of various nucleophiles but alkylation at C-2 was possible by lithiation followed by reaction with iodomethane.

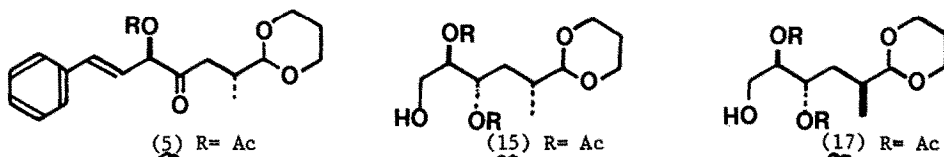


BAKER'S YEAST MEDIATED SYNTHESIS OF EPIMERIC 2,3-DIDEOXY-2-C-METHYL D-GLUCOSE DERIVATIVES

G.Fronza, C.Fuganti, P.Grasselli and S.Servi

Dipartimento di Chimica del Politecnico, 20133 Milano, Italy

The epimeric 2-C-methyl 2,3-dideoxy D-glucose derivatives (15) and (17) are obtained through a sequence involving as key step the enantioselective baker's yeast reduction of rac-(5)



Tetrahedron Lett. 27, 4363 (1986)

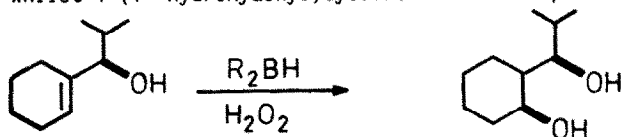
STEREOSELECTIVITY IN THE HYDROBORATION OF CHIRAL CYCLO-HEXANE-DERIVED ALLYLIC ALCOHOLS

David H. Birtwistle^a, John M. Brown^a and Michael W. Foxton^b

^aDyson Perrins Laboratory, South Parks Road, Oxford OX1 3QY.

^bGlaxo Group Research, Greenford, Middlesex UB6 0HE.

The isomeric 2-ethylidenecyclohexanols are hydroborated by t-hexylborane with weak stereoselectivity whilst 1-(1'-hydroxyalkyl)cyclohexenes show up to 50:1 discrimination.



Tetrahedron Lett. 27, 4367 (1986)