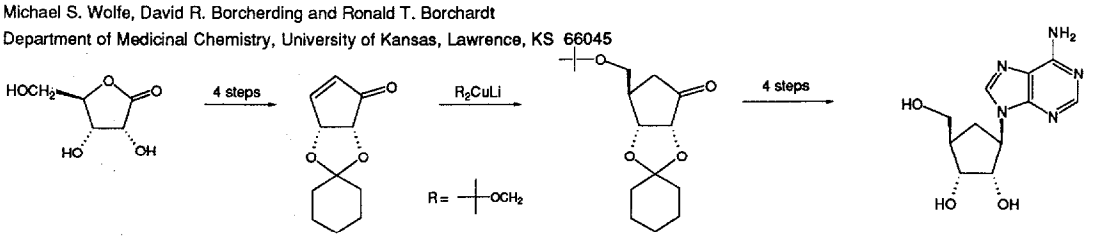
GRAPHICAL ABSTRACTS

Tetrahedron Lett. 30, 1453 (1989)

A 9-Step Enantiospecific Synthesis of (-)- Aristeromycin from D-Ribonolactone

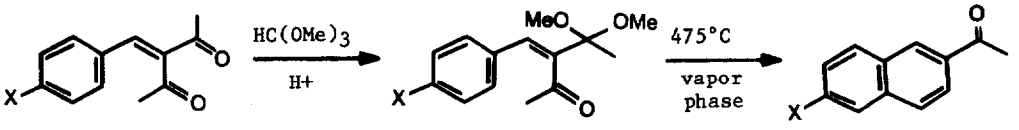
Michael S. Wolfe, David R. Borcherding and Ronald T. Borchardt
Department of Medicinal Chemistry, University of Kansas, Lawrence, KS 66045



Tetrahedron Lett. 30, 1457 (1989)

SEQUENTIAL ACETALIZATION-PYROLYSIS OF α-ACETYL BENZALACETONES. A METHOD FOR THE GENERATION OF 6-SUBSTITUTED 2-ACETONAPHTONES.

Joseph R. Zoeller
Research Laboratories, Eastman Chemicals Division
Eastman Kodak Company, Kingsport, TN 37662

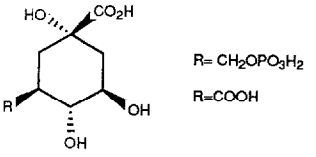


Tetrahedron Lett. 30, 1461 (1989)

DESIGN AND SYNTHESIS OF SUBSTRATE ANALOGS FOR THE INHIBITION OF DEHYDROQUINATE SYNTHASE

Nicholas Nikolaides and Bruce Ganem,
Department of Chemistry, Baker Laboratory, Cornell University, Ithaca, New York 14853

Two substrate analogs were designed as inhibitors of the title enzyme:

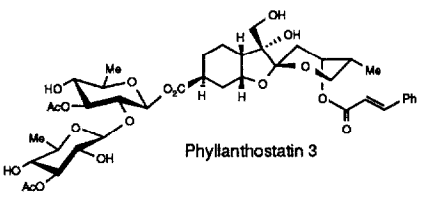


Tetrahedron Lett. 30, 1465 (1989)

THE TOTAL SYNTHESIS OF (+)-PHYLLANTHOCINDIOL AND (+)-PHYLLANTHOSTATIN 3

Henry A. Vaccaro, Ralph A. Rivero, and Amos B. Smith, III*
The Department of Chemistry, The Laboratory for Research on the Structure of Matter and The Monell Chemical Senses Center, The University of Pennsylvania, Philadelphia, PA 19104, U.S.A.

The first total synthesis of the antitumor glycoside phyllanthostatin 3 together with its aglycone phyllanthocindiol are reported.

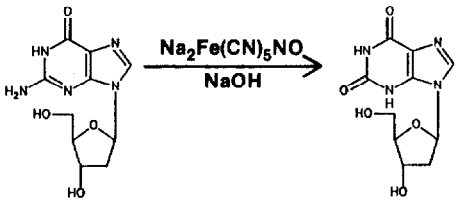


Phyllanthostatin 3

Tetrahedron Lett. 30, 1467 (1989)

Preparation of 2'-Deoxyxanthosine by Nitrosative Deamination of 2'-Deoxyguanosine Under Alkaline Aqueous Conditions

Robert C. Moschel* and Larry K. Keefer
BRI-Basic Research Program (R.C.M.) and Chemistry Section,
Laboratory of Comparative Carcinogenesis (L.K.K.),
National Cancer Institute,
Frederick Cancer Research Facility, Frederick, MD 21701, USA



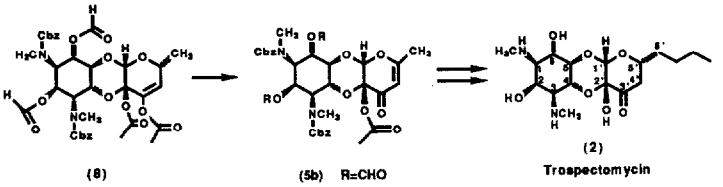
dGuo dXao

Tetrahedron Lett. 30, 1469 (1989)

THE SYNTHESIS OF TROSPECTOMYCIN (6'-n-PROPYL-SPECTINOMYCIN, U-63,366F) FROM SPECTINOMYCIN

David R. White,* and Gary A. Cain
Cancer and Infectious Diseases Research, The Upjohn Company, Kalamazoo, MI 49001

The sensitive sugar ring of spectinomycin can be activated, as an enolacetate (**8**), to obtain a key enone (**5b**). Reaction of (**5b**) with DMF dimethylacetal and then ethyl Grignard reagent leads to the antibacterial trospectomycin (**2**).



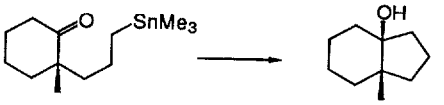
(8) (5b) R=CHO (2) Trospectomycin

Tetrahedron Lett. 30, 1473 (1989)

CARBONYL-INITIATED CYCLIZATION OF TETRAALKYLSTANNANES

Timothy L. Macdonald*, Claire M. Delahunty, Keith Mead and Dale E. O'Dell
Department of Chemistry, University of Virginia, Charlottesville, VA 22901 USA

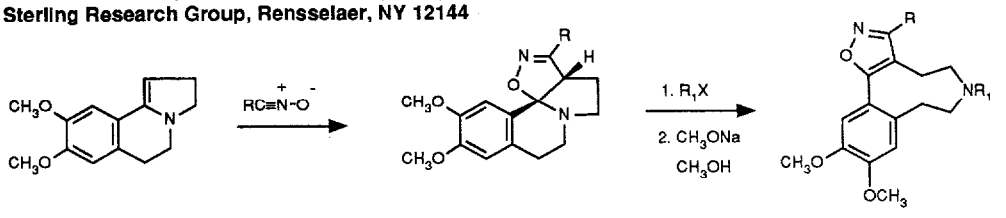
Trimethylstannyl alkanal and alkanone compounds undergo a five- or six-membered carbocyclization or an internal β-hydride transfer process upon activation with select Lewis acids, depending on ring size and electrophile substitution pattern.



Tetrahedron Lett. 30, 1477 (1989)

THE SYNTHESIS OF NOVEL NITROGEN-CONTAINING MACROCYCLES FROM ISOXAZOLINE INTERMEDIATES

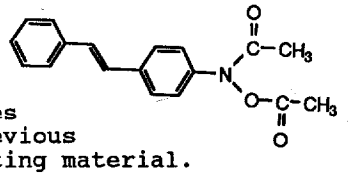
Mark P. Wentland, Medicinal Chemistry Department
Sterling Research Group, Rensselaer, NY 12144



Tetrahedron Lett.30,1479(1989)

SOLVOLYSIS OF N-ACETOXY-4-ACETYLAMINOSTILBENE: THE IRREVERSIBLE FORMATION OF NITRENIUM IONS.

Constantinos Nicolaou and Graham R. Underwood
Department of Chemistry, New York University,
Washington Square, New York, New York, 10003



The title compound, a carcinogen model, undergoes reaction via nitrenium ions but, contrary to previous studies, these are not in equilibrium with starting material.

Tetrahedron Lett.30,1483(1989)

SODIUM PERBORATE: A MILD AND CONVENIENT REAGENT FOR EFFICIENTLY OXIDIZING TRIALKYLBORANES

George W. Kabalka*, Timothy M. Shoup, and Naganna M. Goudgaon
Departments of Chemistry and Radiology, University of Tennessee, Knoxville, TN 37996-1600.

Sodium perborate efficiently oxidizes organoboranes. The reagent permits the oxidation of a wide variety of functionally substituted organoboranes. The product yields generally exceed those obtained using standard oxidation procedures.

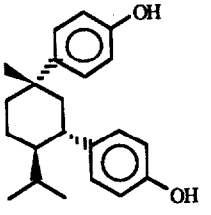
$$R_3B + NaBO_3 \cdot 4H_2O \longrightarrow 3ROH$$

Tetrahedron Lett.30,1487(1989)

HYDRALLMANOL A, AN INTERESTING DIPHENYL-p-MENTHANE DERIVATIVE OF MIXED BIOGENETIC ORIGIN FROM THE HYDROID *HYDRALLMANIA FALCATA*

C. Pathirana and R.J. Andersen*
Departments of Chemistry and Oceanography
University of British Columbia
Vancouver, B.C. Canada V6T 1W5

J.C.L. Wright*
National Research Council, Canada
Atlantic Regional Lab.
Halifax, Nova Scotia B3H 3Z1



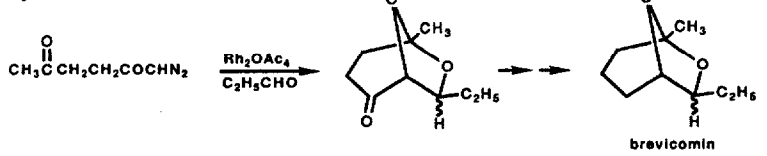
The structure of hyrdallamnol A (**1**) has been solved by spectroscopic analysis and confirmed by synthesis.

Tetrahedron Lett.30,1491(1989)

SYNTHESIS OF *exo* and *endo*-BREVICOMIN VIA THE RHODIUM ACETATE CATALYZED CYCLOADDITION REACTION OF 1-DIAZO-2,5-HEXANEDIONE

Albert Padwa, Richard L. Chinn and Lin Zhi*
Department of Chemistry, Emory University, Atlanta, GA 30322 USA

Treatment of 1-diazo-2,5-hexanedione with rhodium (II) acetate in the presence of various aldehydes affords the 6,8-dioxabicyclo[3.2.1]octane ring system in high yield.

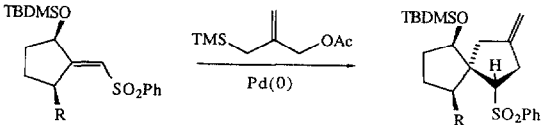


Tetrahedron Lett.30,1495(1989)

A CYCLOADDITION STRATEGY DIRECTED TOWARD THE SPIRO RING SYSTEM OF THE GINKGOLIDES

Barry M. Trost* and Murat Acemoglu
Department of Chemistry, Stanford University, Stanford, CA 94305

A diastereocontrolled [3+2] Pd catalyzed cycloaddition provides the spirocarbocyclic core of the ginkgolides and demonstrates its utility with very hindered acceptors.

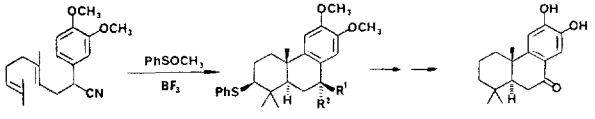


Tetrahedron Lett.30,1499(1989)

SULFENIUM ION PROMOTED POLYENE CYCLIZATIONS IN NATURAL PRODUCT SYNTHESIS. AN EFFICIENT BIOMIMETIC-LIKE SYNTHESIS OF (±) NIMBIDIOL.

Scott R. Harring and Tom Livinghouse*
Department of Chemistry, Montana State University, Bozeman, MT 59717

A four step synthesis of the modified diterpene (±) nimbidiol from (3,4-dimethoxyphenyl)acetonitrile is described which relies on a sulfenium ion promoted polyene cyclization.



Tetrahedron Lett.30,1503(1989)

UNUSUAL REACTIVITY OF NORBORNANE BRIDGEHEAD DERIVATIVES

A. García Martínez*[a], E. Teso Vilar[a], A. García Fraile[a], J. Osío Barcina[a], M. Hanack*[b], L.R. Subramanian[b]

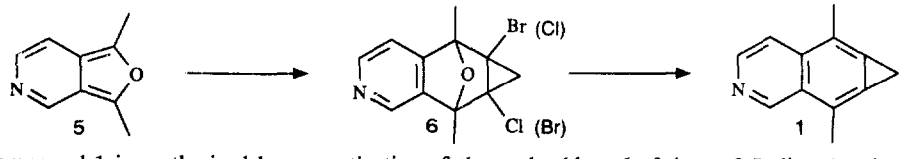
[a]Departamento de Química Orgánica, Universidad Complutense, E-28040 Madrid, Spain
[b]Universität Tübingen, Institut für Organische Chemie, D-7400 Tübingen 1, FRG

exo,endo-1 17 exo,endo-6

Tetrahedron Lett.30,1507(1989)

4-AZA-2,7-DIMETHYL-[1-*H*]CYCLOPROPA[b]-NAPHTHALENE
THE FIRST NITROGEN ANALOGUE OF A CYCLOPROPANAPHTHALENE

Paul Müller, Jean-Pierre Schaller, Département de Chimie Organique, Université de Genève, CH-1211 Genève 4

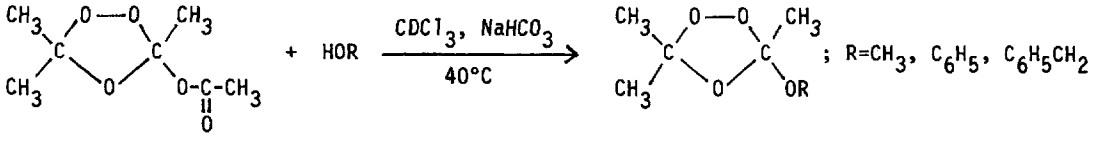


The title compound **1** is synthesized by aromatization of the cycloadduct **6** of 4-aza-2,7-dimethyl-isobenzofuran **5** to 1,2-bromochlorocyclopropene with low-valent titanium.

Tetrahedron Lett.30,1511(1989)

NUCLEOPHILIC SUBSTITUTIONS AT OZONIDES

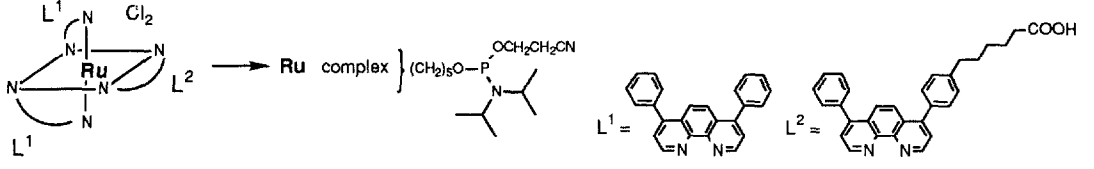
Karl Griesbaum*, Willi Volpp and Tae-Seong Huh
Engler-Bunte-Institut, Bereich Petrochemie, Universität Karlsruhe (TH), D-7500 Karlsruhe, Germany



Tetrahedron Lett.30,1513(1989)

A SIMPLE SPECIFIC LABELLING FOR OLIGONUCLEOTIDES BY BATHOPHENANTHROLINE-Ru(II) COMPLEXES AS NONRADIOACTIVE LABEL MOLECULES

Willi Bannwarth* and Dieter Schmidt
Central Research Units, F.Hoffmann-La Roche & Co.Ltd., CH-4002 Basle (Switzerland)

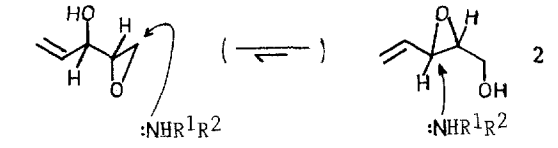


Tetrahedron Lett.30,1517(1989)

REGIOCONTROL IN THE SYNTHESIS OF OPTICALLY ACTIVE AMINO-4-PENTENEDIOLS VIA EPOXY-4-PENTENOLS. NOVEL ACYCLIC ADENOSINE ANALOGUES

Walter Hümmer, Tibor Gracza, and Volker Jäger*
Institut für Organische Chemie der Universität, Am Hubland, D-8700 Würzburg

Aminolysis of the terminal epoxide 1 affords L-erythro-1-amino-4-pentenediols whereas - with prior rearrangement to the internal epoxide 2 - D-erythro-3-aminodiols are formed. N^9-Alkylation of adenine is effected with more reactive L- and D-1-X-pentenediols.

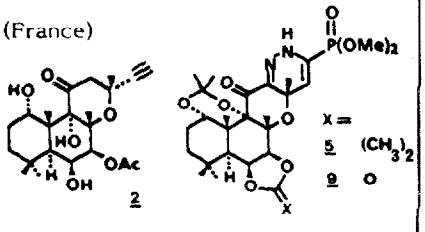


Tetrahedron Lett.30,1521(1989)

SYNTHESIS OF 14,15-DEHYDROFORSKOLIN VIA DIMETHYL DIAZOMETHYLPHOSPHONATE ANION REACTION WITH AN ALDEHYDE

Bernard Delpech and Robert Lett
Laboratoire CNRS/ROUSSEL-UCLAF - B.P. 9 - 93230 Romainville (France)

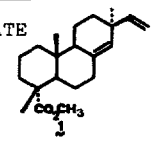
14,15-Dehydroforskolin 2 is prepared by the reaction of dimethyl diazomethylphosphonate anion with 13α-carboxaldehydes obtained from forskolin. Isolation of by-products 5 or 9 gives the first evidence of the reactivity of the primary phosphonate adduct, by intramolecular quenching, before its evolution into carbenoid or carbene intermediates.



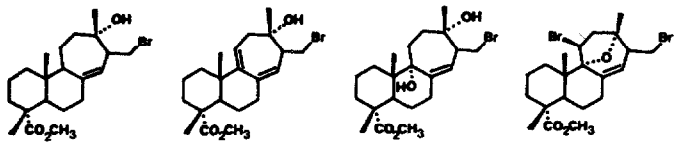
Tetrahedron Lett.30,1525(1989)

BIOMIMETIC ROUTE TO THE STROBANE SKELETON FROM METHYL PIMARATE

N. Sam, M. Taran, M. Pétraud, B. Barbe et B. Delmond
Institut du Pin - Laboratoire de Chimie Organique et Organométallique (U.A.35), Université de Bordeaux I
351, Cours de la Libération
33405 - TALENCE CEDEX (France)



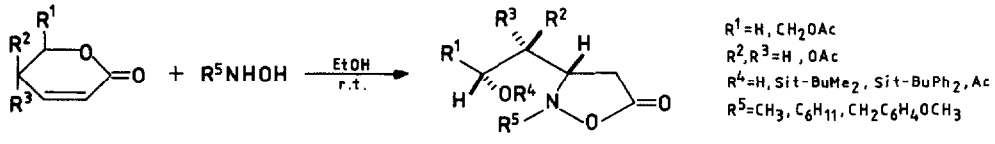
New biomimetic access to strobane derivatives from methyl pimarate 1.



Tetrahedron Lett.30,1527(1989)

SYNTHESIS OF ENANTIOMERICALLY PURE 2,3-DISUBSTITUTED ISOXAZOLIDIN-5-ONES

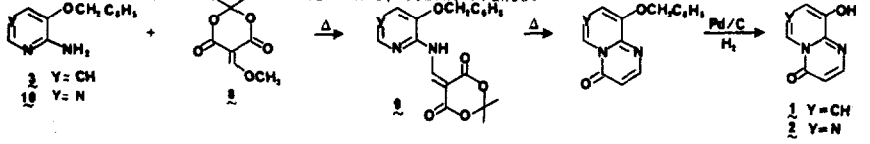
Irma Panfil, Sylwester Maciejewski, Czesław Bełzecki, and Marek Chmielewski
Institute of Organic Chemistry, Polish Academy of Sciences, 01-224 Warsaw, POLAND



Tetrahedron Lett.30,1529(1989)

SYNTHESIS OF NEW HETEROCYCLIC PHENOLS : 9-HYDROXY-PYRIDO [1,2-a] PYRIMIDINE-4-ONE AND 9-HYDROXY-PYRIMIDO [1,6-a] PYRIMIDINE-4-ONE

F. DENNIN, D. BLONDEAU and H. SLIWA*
Laboratoire de Chimie Organique, Université des Sciences et Techniques de Lille Flandres Artois, 59655 VILLENEUVE D'ASCQ Cédex, France.

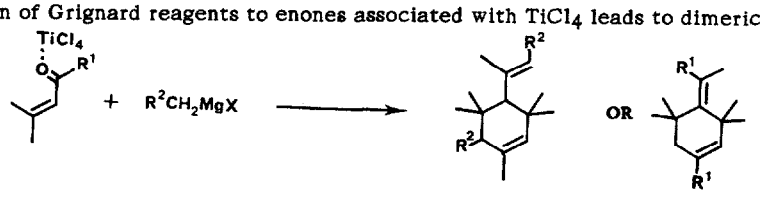


Tetrahedron Lett.30,1531(1989)

SELF-CONDENSATION OF ALLYLIC ALCOHOLS MEDIATED BY $TiCl_4$.

Mostafa El Idrissi and Maurice Santelli*,
Centre de St-Jérôme, Av. Esc. Normandie-Niemen, 13397 Marseille Cedex 13, France.

Addition of Grignard reagents to enones associated with $TiCl_4$ leads to dimeric hydrocarbons.



A FACILE SYNTHESIS OF 3-ARYL-4-HYDROXYCOUMARINS.

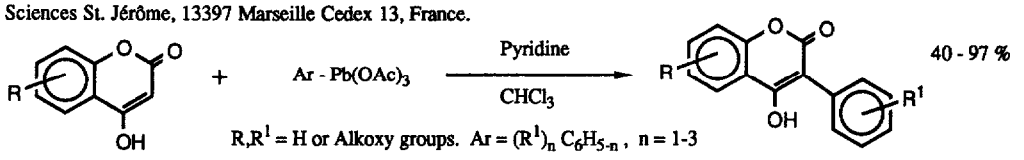
Tetrahedron Lett.30,1539(1989)

Derek H.R. Barton[a], Dervilla M.X. Donnelly[b], Jean-Pierre Finet[b,c], and Patrick J. Guiry[b,c]

[a] Department of Chemistry, Texas A&M University, College Station, Texas 77843, U.S.A.

[b] Department of Chemistry, University College, Dublin, Ireland.

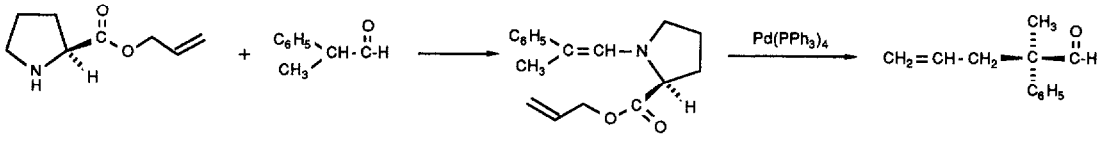
[c] Faculté des Sciences St. Jérôme, 13397 Marseille Cedex 13, France.



PALLADIUM-CATALYZED ASYMMETRIC ALLYLATIONS OF ALDEHYDES VIA (S)-PROLINE ALLYL ESTER ENAMINES

Tetrahedron Lett.30,1543(1989)

Kunio Hiroi,* Jun Abe, Kyoko Suya, and Shuko Sato
Department of Synthetic Organic Chemistry, Tohoku College of Pharmacy,
4-4-1 Komatsushima, Sendai, Miyagi 981, Japan

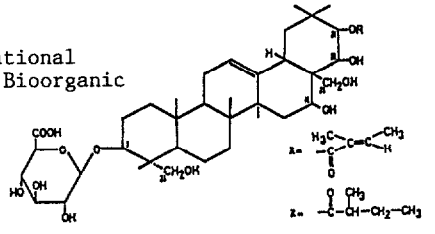


STUDIES ON TASTE MODIFIERS. II[1]. PURIFICATION AND STRUCTURE DETERMINATION OF GYMNEMIC ACIDS, ANTISWEET ACTIVE PRINCIPLE FROM GYMNEMA SYLVESTRE LEAVES

Tetrahedron Lett.30,1547(1989)

Morihiko Maeda, Takashi Iwashita* and Yoshie Kurihara#
Department of Chemistry, Faculty of Education, Yokohama National University, Yokohama 240, Japan and *Suntory Institute for Bioorganic Research, Wakayamadai, Mishima-gun, Osaka 618, Japan

The chemical structures of two major active components of gymnemic acids were established on the basis of spectral and chemical evidence. The antisweet activity of these compounds is discussed in relation to their structures.

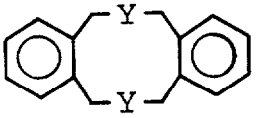


STRUCTURES OF 2,11-DITHIA[3.3]ORTHOCYCLOPHANE AND ITS DISELENA ANALOGUE

Tetrahedron Lett.30,1551(1989)

T.Okajima, Zhen-He Wang, Y.Fukazawa,*
Department of Chemistry, Hiroshima University, Hiroshima 730, Japan

Structures of 2,11-Dithia[3.3]ortho-cyclophane(1) and its diselena analogue(2) are confirmed to be anti by X-ray analysis and ring current method.



1 Y=S

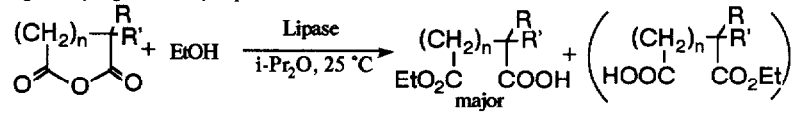
2 Y=Se

Tetrahedron Lett.30,1555(1989)

HIGHLY REGIOSELECTIVE RING-OPENING OF α-SUBSTITUTED CYCLIC ACID ANHYDRIDES CATALYZED BY LIPASE

Jun Hiratake, Kazuyoshi Yamamoto, Yukio Yamamoto†, Jun'ichi Oda*

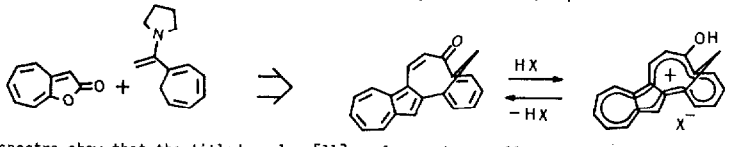
Institute for Chemical Research, Kyoto University, Uji, Kyoto 611, Japan
†Department of Chemistry, College of Liberal Arts and Science, Kyoto University, Yoshida, Sakyo-ku, Kyoto 606, Japan



Tetrahedron Lett.30,1557(1989)

THE SYNTHESIS AND PROPERTIES OF AZULENO[1,2-*d*]BICYCLO-[5.4.1]DODECA-1,4,6,8,9a-PENTAEN-3-ONE AND ITS CATIONIC SPECIES

Shigeyasu Kuroda,* Sunao Maeda, Syuzi Hirooka, Masahiro Ogisu, Kazuo Yamazaki, Ichiro Shimao, and Masafumi Yasunami,†
Department of Industrial Chemistry, Faculty of Engineering, Toyama University, Gofuku 3190, Toyama 930, Japan,
†Department of Chemistry, Faculty of Science, Tohoku University, Sendai 980, Japan.



The ^{1}H-NMR spectra show that the titled azuleno[11]annulenone has small polarization and its protonated cationic species is diatropic because of 18 π conjugation in periphery.

Tetrahedron Lett.30,1561(1989)

FORMYLATION REACTION USING THE OZONOLYSATE OF OXAZOLE

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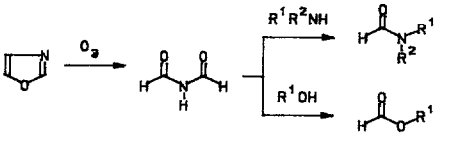
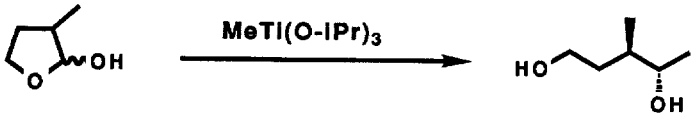
New formylation reaction of nucleophiles using the ozonolysate of oxazole.



Tetrahedron Lett.30,1563(1989)

Lactols in Stereoselection 3. Highly *anti*-Cram 1,2-Asymmetric Induction

Katsuhiko Tomooka, Tatsuyuki Okinaga, Keisuke Suzuki*, and Gen-ichi Tsuchihashi
Department of Chemistry, Keio University, Hiyoshi Yokohama, 223, Japan



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Tetrahedron Lett. 30, 1567 (1989)

STRUCTURES OF SECOSPATANE-TYPE DITERPENES WITH FEEDING-DETERRENT ACTIVITY FROM THE BROWN ALGA DILOPHUS OKAMURAI

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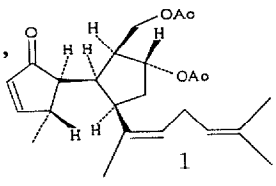

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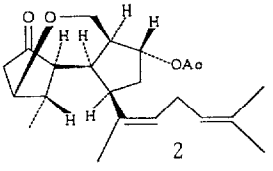

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Tetrahedron Lett. 30, 1571 (1989)

A FORMATION OF OPTICALLY ACTIVE OXETANES FROM SUGARS BY BORON TRIFLUORIDE CATALYZED [2+2]CYCLOADDITION REACTION

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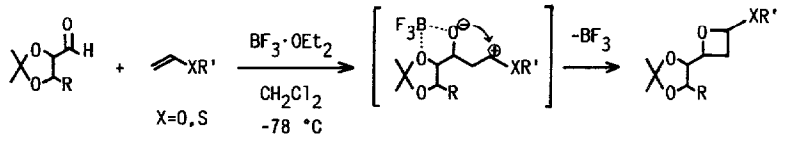

Tetrahedron Lett. 30, 1575 (1989)

STEREOSELECTIVE SYNTHESIS OF CONTIGUOUSLY SUBSTITUTED BUTYROLACTONES BASED ON THE CYCLIC ALLYLSULFONIUM YLIDE REARRANGEMENT

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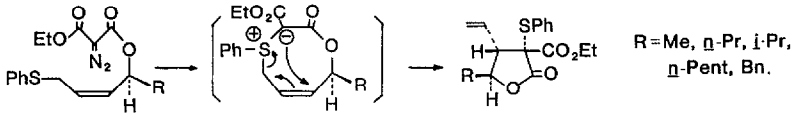

Tetrahedron Lett. 30, 1579 (1989)

STEREOSELECTIVE ESTER ENOLATE ALKYLATION AND HYDROXYLATION AT C-22 OF A STEROID SIDE CHAIN

Deukjoon Kim*[a], Gyoon Hee Han[a], and Kwon Kim[b]
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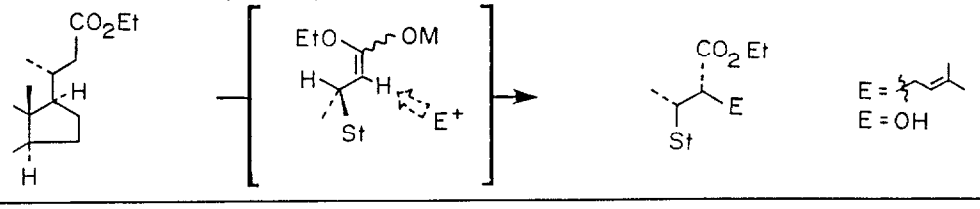
b Kolon Industries, Inc., Korea



Tetrahedron Lett.30,1581(1989)

INDIUM-INDUCED ALLYLATION OF ACID ANHYDRIDES. A FACILE SYNTHESIS OF ALLYLATED BUTENOLIDES AND PHTHALIDES

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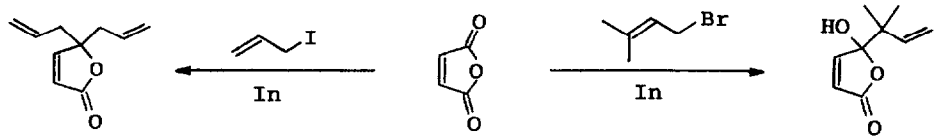

Tetrahedron Lett.30,1583(1989)

STEREOCONTROL OF A TERTIARY HYDROXYL GROUP VIA MICROBIAL EPOXIDATION. A FACILE SYNTHESIS OF PROSTAGRANDIN ω-CHAINS

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