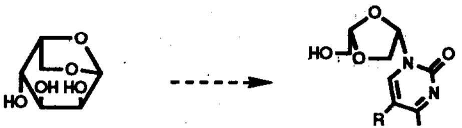
GRAPHICAL ABSTRACTS

Tetrahedron Lett. **1992**, *33*, 6899

Potent Anti-HIV and Anti-HBV Activities of (-)-L-β-Dioxolane-C and (+)-L-β-Dioxolane-T and Their Asymmetric Syntheses.

Hea O. Kim,† Kirupathevy Shanmuganathan,† Antonio J. Alves,† Lak S. Jeong,† J. Warren Beach,† Raymond F. Schinazi,‡ Chien-Neng Chang, Yung-Chi Cheng, and Chung K. Chu†*. †Department of Medicinal Chemistry, College of Pharmacy, The University of Georgia, Athens, GA 30602, ‡Department of Pediatrics, Emory University School of Medicine/VA Medical Center, Decatur, GA 30033.

The asymmetric syntheses of (+)-L-β-dioxolane-T and (-)-L-β-dioxolane-C were accomplished starting from 1,6-anhydro-L-β-gulo-pyranose, and their anti-HIV and anti-HBV activities were evaluated in human PBM cells, CEM cells and 2.2.15 cells, respectively.



2

13 (R = Me, X = OH)

14 (R = H, X = NH$_2$)

Tetrahedron Lett. **1992**, *33*, 6903

REACTION OF ALKYLHYPOCHLORITES AND XENON DIFLUORIDE WITH CYCLOHEXENE

Dale F. Shellhamer,* Mark J. Horney, Andrew L. Toth and Victor L. Heasley,
Department of Chemistry, Point Loma Nazarene College, San Diego, CA 92106

Reaction of alkylhypochlorites and xenon difluoride with cyclohexene give primarily 1-chloro-2-fluorocyclohexanes via formation of a complex between xenon difluoride and the alkylhypochlorite.

$R_3COCl + XeF_2 \longrightarrow$ COMPLEX

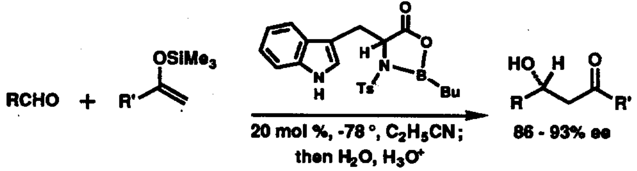
COMPLEX $\longrightarrow$ PRODUCTS

$R=CH_3, C_2H_5$

Tetrahedron Lett. **1992**, *33*, 6907

ENANTIOSELECTIVE MUKAIYAMA-ALDOL AND ALDOL-DIHYDROPYRONE ANNULATION REACTIONS CATALYZED BY A TRYPTOPHAN-DERIVED OXAZABOROLIDINE

E. J. Corey, Charles L. Cywin and Thomas D. Roper
Department of Chemistry
Harvard University
Cambridge, MA, 02138



20 mol %, -78 °, C_2H_5CN; then H_2O, H_3O^+

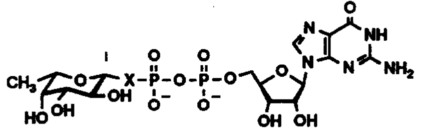
86 - 93% ee

Tetrahedron Lett. **1992**, *33*, 6911

SYNTHESIS OF *C*-FUCOPYRANOSYL ANALOGS OF GDP-L-FUCOSE AS INHIBITORS OF FUCOSYLTRANSFERASES

Juan I. Luengo* and John G. Gleason, Department of Medicinal Chemistry, SmithKline Beecham Pharmaceuticals, 709 Swedeland Road, Swedeland, PA 19479, USA

Analogs of GDP-L-fucose (1), *C*-fucopyranosides 2-5, were synthesized as potential inhibitors of fucosyltransferases starting from tetra-*O*-acetyl-α-L-fucopyranose.



1 X = -O-

2 X = -CH$_2$-

3 X = -CH$_2$-O-

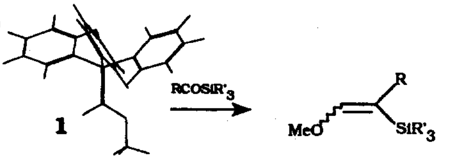
4 X = -CH$_2$-CH$_2$-O-

5 X = -CH$_2$-CH$_2$-O- (α at C-1)

Tetrahedron Lett. **1992**, *33*, 6915

METHOXYMETHYLENE(TRIPHENYL)PHOSPHORANE FROM ALKYLLITHIUM REAGENTS

Charles L. Anderson, John A. Soderquist*
Department of Chemistry, University of Puerto Rico
Rio Piedras, Puerto Rico 00931 *and*
George W. Kabalka
Department of Chemistry, University of Tennessee
Knoxville, Tennessee 37996



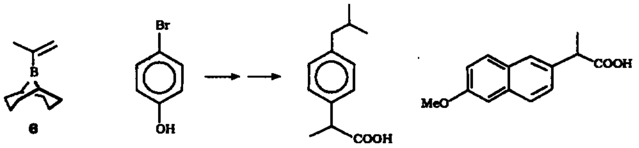
The efficient generation of $Ph_3PCHOMe$ (1) with Li(t-Bu) is contrasted to Li(n-Bu) which competitively produces $Ph_2(MeOCH_2)PCH(n\text{-}Pr)$. ^{31}P NMR studies and reactions with acylsilanes are described.

Tetrahedron Lett. **1992**, *33*, 6919

IBUPROFEN AND NAPROXEN *VIA* ORGANOBORANES

Isaac Rivera, Juan C. Colberg and John A. Soderquist*
Department of Chemistry, University of Puerto Rico, Rio Piedras, Puerto Rico 00931

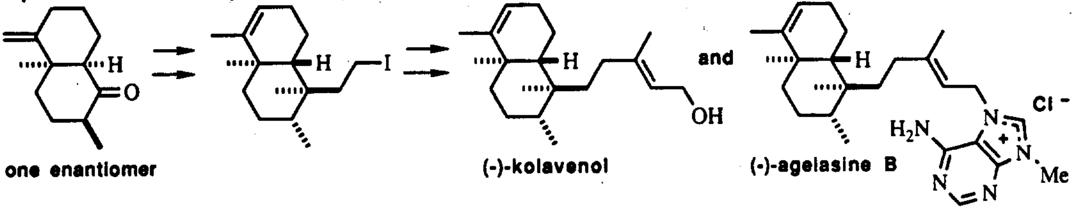
*Organoboranes such as **6** provide the key reagents in new totally boron-based syntheses of ibuprofen and naproxen in racemic form.*



Tetrahedron Lett. **1992**, *33*, 6923

TOTAL SYNTHESES OF THE DITERPENOIDS (-)-KOLAVENOL AND (-)-AGELASINE B

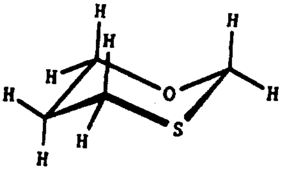
Edward Piers* and Jacques Y. Roberge
Department of Chemistry, University of British Columbia, Vancouver, B.C., Canada V6T 1Z1



Tetrahedron Lett. **1992**, *33*, 6927

STEREOELECTRONIC INTERPRETATION OF THE UNUSUAL PERLIN EFFECTS AND H-1 NMR CHEMICAL SHIFTS IN 1,3-OXATHIANE.

Eusebio Juaristi*, Gabriel Cuevas and Abelardo Flores-Vela. CINVESTAV-IPN, Apdo, 14-700, 07000 México, D.F., México.



The "anomalous" NMR spectroscopic behavior in 1,3-oxathiane can be explained in terms of stereoelectronic interactions.

Tetrahedron Lett. **1992,** *33,* 6931

New Reagents for Radical Allylations

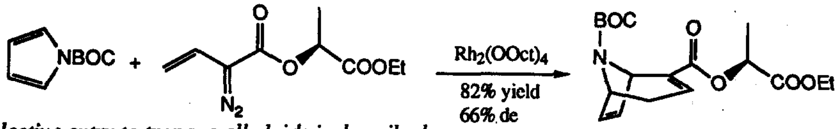
Dennis P. Curran and Byungwoo Yoo
Department of Chemistry, University of Pittsburgh, Pittsburgh, PA 15260, USA

Three reagents are introduced for radical allylations: 3-phenylthio-2-bromopropene, 2,3-bis(trimethylstannyl)propene, and 3-tris(trimethylsilyl)silylthiopropene.

Tetrahedron Lett. **1992,** *33,* 6935

ENANTIOSELECTIVE SYNTHESIS OF TROPANES BY REACTION OF RHODIUM-STABILIZED VINYLCARBENOIDS WITH PYRROLES

Huw M. L. Davies* and Nicholas J. S. Huby, Department of Chemistry, Wake Forest University, Box 7486, Winston-Salem, North Carolina 27109.



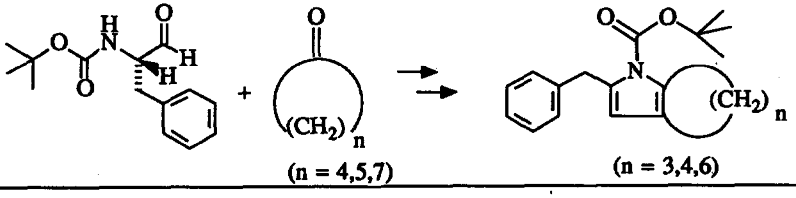
An enantioselective entry to tropane alkaloids is described.

Tetrahedron Lett. **1992,** *33,* 6939

A NOVEL SYNTHESIS OF COMPOUNDS CONTAINING A FUSED PYRROLE RING FROM CYCLIC KETONES AND N-BOC-L-PHENYLALANINAL

Marek T. Konieczny and Mark Cushman,* Department of Medicinal Chemistry and Pharmacognosy, Purdue University, West Lafayette, Indiana 47907

A synthesis of fused pyrrole-containing compounds from *N*-BOC-L-phenylalaninal and cyclic ketones is described.

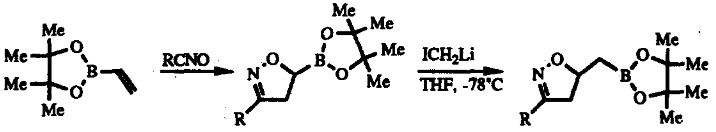


Tetrahedron Lett. **1992,** *33,* 6941

PREPARATION AND 1-CARBON HOMOLOGATION OF BORONIC ESTER SUBSTITUTED Δ^2-ISOXAZOLINES: THE 1,3 DIPOLAR CYCLOADDITON OF NITRILE OXIDES TO VINYL BORONIC ESTERS

Richard H. Wallace* and K.K. Zong
Department of Chemistry, University of Alabama, Tuscaloosa, AL 35487

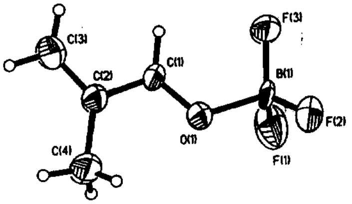
The dipolar cycloaddition of nitrile oxides to vinyl boronic esters, and the one carbon homologation of the resulting cycloadducts is described.



Tetrahedron Lett. **1992**, *33*, 6945

THE STRUCTURE OF THE 2-METHYLACROLEIN BORON TRIFLUORIDE COMPLEX IN THE CRYSTALLINE PHASE AND IN SOLUTION

E. J. Corey, Teck-Peng Loh, Sepehr Sarshar and Mihai Azimioara
Department of Chemistry, Harvard University
Cambridge, Massachusetts, 02138

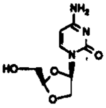


Tetrahedron Lett. **1992**, *33*, 6949

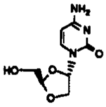
OXIDATIVE DEGRADATION OF L-ASCORBIC ACID ACETALS TO 2',3'-DIDEOXY-3'-OXARIBOFURANOSIDES. SYNTHESIS OF ENANTIOMERICALLY PURE 2',3'-DIDEOXY-3'-OXACYTIDINE STEREOISOMERS AS POTENTIAL ANTIVIRAL AGENTS.

B.R. Belleau, C.A. Evans, H.L.A. Tse,
H. Jin, D.M. Dixit and T.S. Mansour*
BioChem Pharma Inc., 531 des Prairies Blvd.
Laval, Québec, Canada H7V 1B7

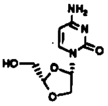
Enantiomerically pure 2',3'-dideoxy-3'-oxacytidine nucleoside analogues were synthesized from L-Ascorbic acid in eight steps and good overall yield.



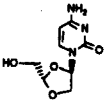
11
(+) BCH-204



12
(-) BCH-203



14
(-) BCH-204



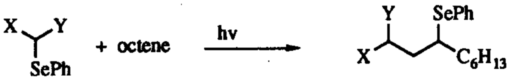
15
(+) BCH-203

Tetrahedron Lett. **1992**, *33*, 6953

RADICAL ADDITION OF VARIED FUNCTIONALITY VIA PHENYLSELENENYL TRANSFER

Jeffrey H. Byers* and Brooke C. Harper
Department of Chemistry and Biochemistry, Middlebury College, Middlebury, VT 05753

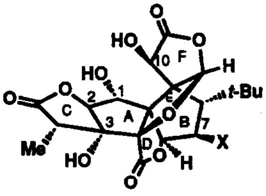
A variety of phenylselenides were added to octene upon photolysis.



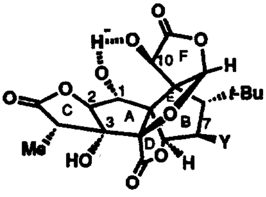
Tetrahedron Lett. **1992**, *33*, 6955

INTRAMOLECULAR AND INTERMOLECULAR HYDROXYL REACTIVITY DIFFERENCES IN GINKGOLIDES A, B AND C AND THEIR CHEMICAL APPLICATIONS

E. J. Corey, K. Srinivas Rao and Arun K. Ghosh
Department of Chemistry, Harvard University
Cambridge, Massachusetts, 02138



X=OH → X=H via 2



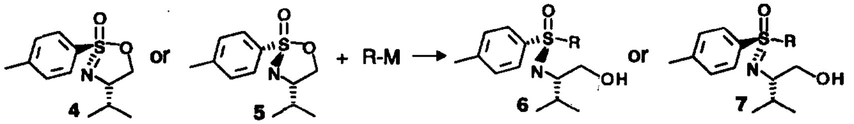
2

Tetrahedron Lett. **1992**, *33*, 6959

ONE-POT SYNTHESIS OF (S)-4-ISOPROPYL-2-P-TOLUENE-4,5-DIHYDRO-[1,2λ^6,3]OXATHIAZOLE 2-OXIDES: EFFICIENT PRECURSORS OF OPTICALLY ACTIVE SULFOXIMINES.

Michael Reggelin* and Heinz Weinberger, Institute of Organic Chemistry, J. W. Goethe-Universität, Niederurseler Hang, W-6000 Frankfurt/Main 50, Germany.

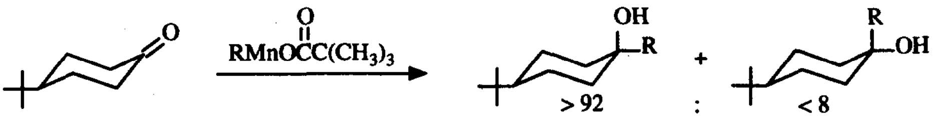
The cyclic sulfonimidates **4** and **5** offer an efficient entry to a variety of optically active sulfoximines.



Tetrahedron Lett. **1992**, *33*, 6963

LIGAND EFFECTS IN SELECTIVE CARBONYL ADDITION REACTIONS OF ORGANOMANGANESE AND CERIUM REAGENTS

Manfred T. Reetz*, Helmut Haning, Stephan Stanchev
Max-Planck-Institut für Kohlenforschung, Kaiser-Wilhelm-Platz 1, 4330 Mülheim/Ruhr, Germany

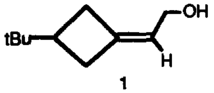


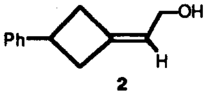
Tetrahedron Lett. **1992**, *33*, 6967

Kinetic Resolution of 3-tButyl and 3-Phenyl Cyclobutylidenethanols through Lipase-catalyzed Acylation with Succinic Anhydride.

Jean-Claude Fiaud,[a]* Richard Gil,[a] Jean-Yves Legros,[a] Louisa Aribi-Zouioueche,[b] Wilfried A. König.[c]*
a) Laboratoire de Synthèse asymétrique, bât. 420, Université Paris-Sud, Centre d'Orsay, 91405 Orsay, France.
b) Département de Chimie Organique, Université de Annaba, B.P. 12, 23000 Annaba, Algérie.
c) Institut für Organische Chemie, Universität Hamburg, Martin-Luther-King-Platz 6, D-2000 Hamburg 13, FRG.

(3-Substituted cyclobutylidene)ethanols 1 and 2 have been readily (no chromatographic separation) prepared in moderate ee's (89% and 40%, respectively) and yields (18% and 31%), through lipase-catalyzed resolution.

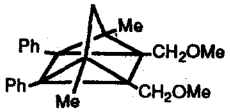

1


2

Tetrahedron Lett. **1992**, *33*, 6971

Reaction of Electron-Rich Quadricyclane with *p*-Benzoquinone Derivatives.

Ken-ichi Hirao,*[†] Tohru Yokozawa,[†] Kiyoshi Hasebe,[†] Asami Yamashita,[††] Tomoki Watanabe,[††] and Tatsuo Hamada[†††]
[†]Department of Chemistry, Faculty of Science, Hokkaido University, Sapporo 060, Japan
[††]Hokkaido Institute of Pharmaceutical Sciences, Katsuraoka, Otaru 047-02, Japan
[†††]Faculty of Pharmaceutical Sciences, Hokkaido University, Sapporo 060, Japan



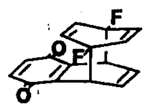
E1/2 vs. SCE = 0.83 V
Reversion by benzoquinones

Tetrahedron Lett. **1992**, *33*, 6975

Detection and Thermal Properties of 1,4-Difluorobenzene-Naphthoquinone Biplanemer: a New Longicyclic π System

Masaru Kimura,* Koji Sirasu, Hideki Okamoto, Kyousuke Satake,
and Shiro Morosawa
Department of Chemistry, Faculty of Science, Okayama University,
Tsushimanaka 3-1-1 700, Japan

Novel longicyclic compound 4 is thermally labile and shows a notably clear long wave-length CT absorption.

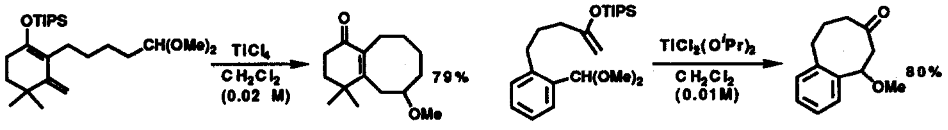


4

Tetrahedron Lett. **1992**, *33*, 6979

Lewis Acid-Mediated Intramolecular Cyclization of the Dienol Silyl Ether or Enol Silyl Ether and the Acetal for Medium-Sized Ring Formation.

Yasuhiro Kataoka, Yusuke Nakamura, Koichiro Morihira, Hidehiro Arai, Yoshiaki Horiguchi, and Isao Kuwajima*
Department of Chemistry, Faculty of Science, Tokyo Institute of Technology, O-okayama, Meguro-ku, Tokyo 152, Japan

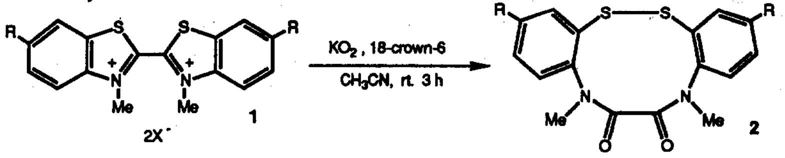


Tetrahedron Lett. **1992**, *33*, 6983

THE REACTION OF 3,3'-DIMETYL-2,2'-BITHIAZOLIUM SALTS WITH SUPEROXIDE

Takashi Itoh, Kazuhiro Nagata, Mamiko Okada, Kentaro Yamaguchi, and Akio Ohsawa,*
School of Pharmaceutical Sciences, Showa University, 1-5-8 Hatanodai,Shinagawa-ku, Tokyo 142, Japan.

The reaction of bithiazolium salts 1 with potassium superoxide-18-crown-6 gave 1,2,5,8-dithiadiazecine-6,7-diones 2 in moderate yields.

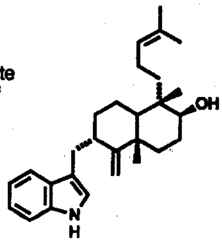


Tetrahedron Lett. **1992**, *33*, 6987

EMENIVEOL; A NEW POLLEN GROWTH INHIBITOR FROM THE FUNGUS, *Emericella nivea*

Yasuo Kimura*, Masahiko Nishibe, Hiromitsu Nakajima, and Takashi Hamasaki, Faculty of Agriculture, Tottori University, Koyama, Tottori 680, Japan: Norihiro Shigemitsu, Daiwabo Create Co. Ltd, Komiya, Harima-cho, Hyougo 675-01, Japan: Fumio Sugawara, RIKEN (The Institute of Physical and Chemical Research), Wako, Saitama 351-01, Japan: Thomas J. Stout and Jon Clardy*, Baker Laboratory, Department of Chemistry, Cornell University, Ithaca, New York 14853-1301, U. S. A.

Emeniveol (1), a new pollen growth inhibitor, was isolated fom the fungus, *Emericella nivea*. The structure was elucidated.

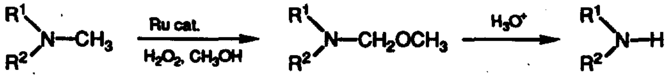


Tetrahedron Lett. **1992**, *33*, 6991

Ruthenium-Catalyzed Oxidation of Tertiary Amines with Hydrogen Peroxide in the Presence of Methanol

Shun-Ichi Murahashi,* Takeshi Naota, Noriko Miyaguchi, and Takeshi Nakato, Department of Chemistry, Faculty of Engineering Science, Osaka University, Machikaneyama, Toyonaka, Osaka 560, Japan

α-Methoxylation of tertiary amines can be performed by the $RuCl_3$-catalyzed oxidation of tertiary amines with hydrogen peroxide in methanol. The reaction provides an efficient method for selective *N*-demethylation of tertiary methylamines and construction of quinoline skeletons.

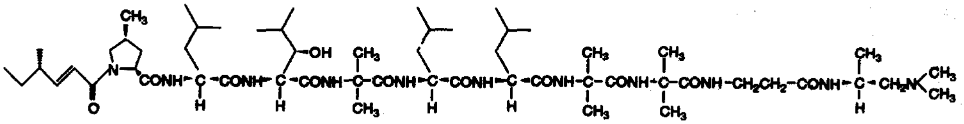


Tetrahedron Lett. **1992**, *33*, 6995

TOTAL SYNTHESIS OF LEUCINOSTATIN D

Shigeru Kuwata,* Akihiro Nakanishi,
Takashi Yamada and Toshifumi Miyazawa, Department of Chemistry, Faculty of Science, Konan University, Higashinada-ku, Kobe 658, JAPAN

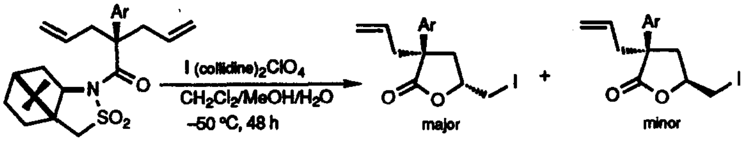
Leucinostatin D (following structure) was synthesized by stepwise elongation method.



Tetrahedron Lett. **1992**, *33*, 6999

Highly Enantioselective Creation of Quaternary Carbons in a Halolactonization of Bis-γ,δ-unsaturated Carboxylic Imides Derived from a Camphorsultam: Enantioselective Synthesis of (+)-Mesembrine

Tsutomu Yokomatsu, Haruo Iwasawa, and Shiroshi Shibuya*
Tokyo College of Pharmacy, 1432-1 Horinouchi, Hachioji, Tokyo 192-03, Japan



Ar= 3,4-dimethoxyphenyl, phenyl

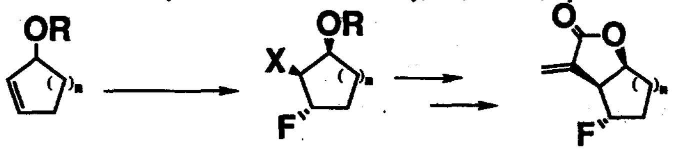
Diastereoselectivity : 4.5-5.5 / 1

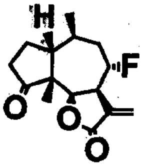
Enantioselectivity: 84-88% ee

Tetrahedron Lett. **1992**, *33*, 7003

REGIO- AND STEREO-CONTROLLED SYNTHESIS OF BICYCLIC α-METHYLENE-γ-BUTYROLACTONES CONTAINING A FLUORINE VIA HALOFLUORINATION–RADICAL CYCLIZATION

Makoto SHIMIZU, Osamu MORITA, Satoru ITOH, and Tamotsu FUJISAWA*
Department of Chemistry for Materials, Mie University, Tsu, Mie 514, Japan





(±)- 4-fluoro-1-*epi*-damsin

Tetrahedron Lett. **1992**, *33*, 7007

PEPTIDE SYNTHESIS IN FLUORINATED ALCOHOLS MIXED WITH PROTON ACCEPTING PARTNERS

Norikazu Nishino,* Hisakazu Mihara, Yuichi Makinose, and Tsutomu Fujimoto
Department of Applied Chemistry, Faculty of Engineering, Kyushu Institute of Technology, Tobata, Kitakyushu 804, Japan

1,1,1,3,3,3-Hexafluoro-2-propanol (HFIP), an excellent dissolver of protected peptides, was successfully utilized for the peptide condensation as a mixed solvent with a proton accepting partner such as *N,N*-dimethylformamide.

$$\text{Boc-Ala-OH} + \text{H-Ala-OBzl} \xrightarrow[\text{HFIP/DMF}]{\text{DCC or BOP}} \text{Boc-Ala-Ala-OBzl}$$

BOP, benzotriazole-1-yl-oxy-tris(dimethylamino)phosphonium hexafluorophosphate

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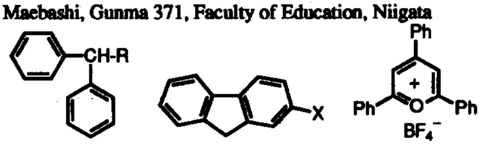
Tetrahedron Lett. **1992**, *33*, 7011

PHOTOINDUCED ELECTRON-TRANSFER OXYGENATION OF ARYLALKANES. GENERATION AND OXYGENATION PATHWAYS OF BENZYLIC-TYPE FREE RADICALS FROM THE CATION RADICAL DEPROTONATION

Ryoichi Akaba,* Masaki Kamata, Hiroki Itoh, Akira Nakao, Sakiko Goto, Kei-ichi Saito, Akio Negishi, Hirochika Sakuragi, and Katsumi Tokumaru
Departments of Chemistry, Gunma College of Technology, Toriba-machi, Maebashi, Gunma 371, Faculty of Education, Niigata University, Niigata 950-21, Faculty of Science, Yamagata University, Yamagata 990, and University of Tsukuba, Tsukuba, Ibaraki 305, Japan

Direct evidence for deprotonation of a cation radical was obtained in 2,4,6-triphenylpyrylium tetrafluoroborate-sensitized oxygenation of arylalkanes in dichloromethane.

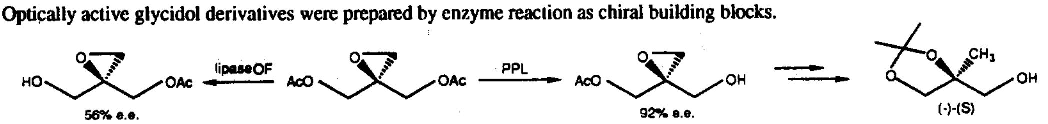


Tetrahedron Lett. **1992**, *33*, 7015

Enzymatic Preparation of Optically Active 2-Acetoxymethylglycidol, A New Chiral Building Block in Natural Product Synthesis

Young-Bae Seu* and Yung-Hee Kho
Genetic Engineering Research Institute, KIST, P.O. Box 17, Taedok Science Town, Daejon 305-606, KOREA

Optically active glycidol derivatives were prepared by enzyme reaction as chiral building blocks.

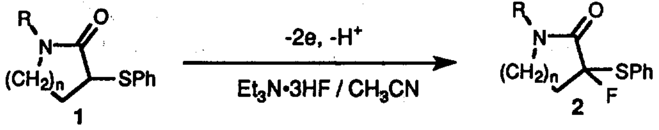


Tetrahedron Lett. **1992**, *33*, 7017

Electrolytic Partial Fluorination of Organic Compounds. 6. Highly Regioselective Electrochemical Monofluorination of Aliphatic Nitrogen-Containing Heterocycles

Akinori Konno, Wataru Naito, and Toshio Fuchigami*
Department of Electronic Chemistry, Tokyo Institute of Technology, Nagatsuta, Midori-ku, Yokohama 227, Japan

Highly regioselective electrochemical monofluorination of α-phenylsulfenyl lactams were carried out in good chemical and current yields.



Tetrahedron Lett. **1992**, *33*, 7021

A Marvelous Catalysis of Tellurium in the Formation of Isothiocyanates from Isocyanides and Sulfur

Shin-ichi Fujiwara* and Tsutomu Shin-Ike
Department of Chemistry, Osaka Dental University, Hirakata, Osaka 573, Japan
Kazuhiro Okada, Minoru Aoki, Nobuaki Kambe, and Noboru Sonoda*
Department of Applied Chemistry, Faculty of Engineering, Osaka University, Suita, Osaka 565, Japan

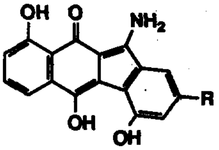
Catalytic activity of tellurium in the formation of isothiocyanates from isocyanides and sulfur has been found to be extremely high.

$$\mathrm{RNC + S} \xrightarrow[\text{THF, reflux}]{\text{Te(cat.), Et}_3\text{N}} \mathrm{RNCS}$$

Tetrahedron Lett. **1992**, *33*, 7025

Structures of Stealthins A and B, New Free Radical Scavengers of Microbial Origin

K. Shin-ya, K. Furihata,† Y. Teshima,
Y. Hayakawa and H.Seto*
Institute of Applied Microbiology, The University of Tokyo,
Bunkyo-ku, Tokyo 113, Japan
†Department of Agricultural Chemistry, The University of Tokyo,
Bunkyo-ku, Tokyo 113, Japan.



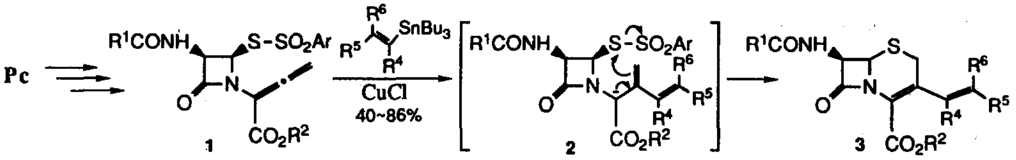
A: R = CH_2OH
B: R = CHO

The structures of stealthins A and B produced by *Streptomyces viridochromogenes* were determined as shown.

Tetrahedron Lett. **1992**, *33*, 7029

A Facile Synthesis of C(3)-Substituted Cephems through Addition-Cyclization of Allenecarboxylates from Penicillin

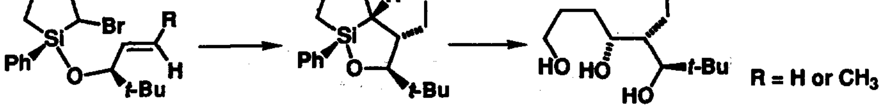
Hideo TANAKA, Yutaka KAMAYAMA, Sin-ich SUMIDA, and Sigeru TORII*
Department of Applied Chemistry, Faculty of Engineering, Okayama University, Okayama 700, Japan



Tetrahedron Lett. **1992**, *33*, 7031

RADICAL CYCLIZATION OF 1-ALLYLOXY-2-HALO-1-SILACYCLOPENTANE. APPLICATION TO STEREOSELECTIVE SYNTHESIS OF 1,4,6-TRIOLS

K. Matsumoto, K. Miura, K. Oshima,* and K. Utimoto*
Department of Industrial Chemistry, Faculty of Engineering,
Kyoto University, Yoshida, Kyoto 606-01, Japan

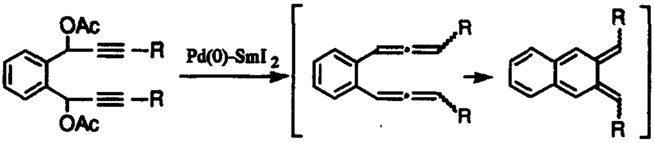


Tetrahedron Lett. **1992**, *33*, 7035

A NOVEL METHOD FOR THE GENERATION OF 2,3-NAPHTHOQUINODIMETHANES UTILIZING SAMARIUM(II) IODIDE-PROMOTED ALLENE SYNTHESIS

J. Inanaga,* Y. Sugimoto, and T. Hanamoto

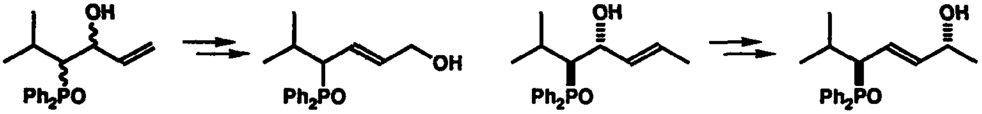
Institute for Molecular Science
Myodaiji, Okazaki 444, Japan



Tetrahedron Lett. **1992**, *33*, 7039

THE SYNTHESIS OF δ-HYDROXY ALLYLIC PHOSPHINE OXIDES BY PALLADIUM(II)-CATALYSED ALLYLIC TRANSPOSITION

Jonathan Clayden,[a] Eric W. Collington[b] and Stuart Warren[a]*
[a]University Chemical Laboratory, Lensfield Road, Cambridge CB2 1EW
[b]Glaxo Group Research Ltd., Greenford Road, Greenford, Middx. UB6 0HE

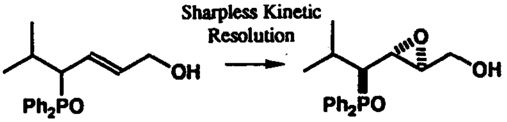


Tetrahedron Lett. **1992**, *33*, 7043

ASYMMETRIC EPOXIDATIONS AND KINETIC RESOLUTIONS OF δ-HYDROXY ALLYLIC PHOSPHINE OXIDES

Jonathan Clayden,[a] Eric W. Collington[b] and Stuart Warren[a]*
[a]University Chemical Laboratory, Lensfield Road, Cambridge CB2 1EW
[b]Glaxo Group Research Ltd., Greenford Road, Greenford, Middx. UB6 0HE

Sharpless epoxidation of the title compounds gives useful synthetic intermediates. In some cases (such as the one illustrated here), we have observed a novel kinetic resolution at a chiral centre remote from the co-ordinating allylic hydroxymethyl group.



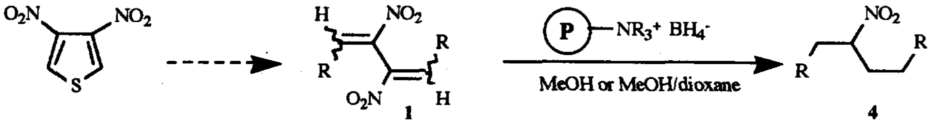
Tetrahedron Lett. **1992**, *33*, 7047

SYNTHETIC EXPLOITATION OF THE RING-OPENING OF 3,4-DINITROTHIOPHENE. PART 3

ACCESS TO 1,4-DIARYL- AND 1,4-DIALKYL-2-NITROBUTANES

C. Dell'Erba, M. Novi,* G. Petrillo and P. Stagnaro

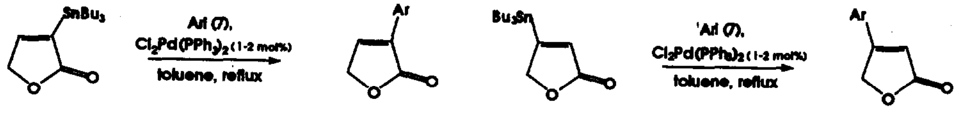
Dinitrobutadienes 1 are converted in good yields to the corresponding 2-nitrobutanes 4 by borohydride supported on ion-exchange resins.



Tetrahedron Lett. **1992**, *33*, 7049

Preparation of 3- and 4-Aryl-2-(5H)-Furanones

Gregory J. Hollingworth and J.B. Sweeney,* School of Chemistry, University of Bristol, Cantock's Close, Bristol, BS8 1TS, U.K.



(2) (8) (3) (9)

Preparation of 3- and 4-substituted 2-(5H)-Furanones (8) and (9) has been accomplished *via* cross coupling of 3- and 4-trialkylstannyl furanones (2) and (3) with aryl iodides

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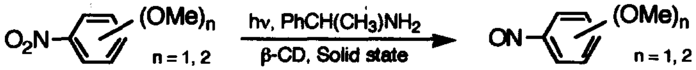
Tetrahedron Lett. **1992**, *33*, 7053

SOLID STATE PHOTOCHEMISTRY OF TERNARY CYCLODEXTRIN COMPLEXES: TOTAL SELECTIVITY IN THE PHOTOREDUCTION OF NITROPHENYL ETHERS BY 1-PHENYLETHYLAMINE

Miquel Mir, Jorge Marquet,* and Eduard Cayón
Department of Chemistry. Universitat Autònoma de Barcelona. 08193 Bellaterra. Barcelona. Spain

The irradiation of the ternary complexes of β-cyclodextrin with several nitrophenyl ethers, and 1-phenylethylamine in the solid state, produces selective photoreduction to the corresponding nitroso derivatives.

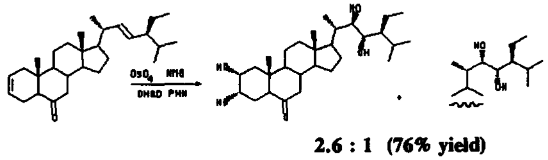


Tetrahedron Lett. **1992**, *33*, 7057

USE OF DIHYDROQUINIDINE 9-O-(9'-PHENANTHRYL) ETHER IN OSMIUM-CATALYZED ASYMMETRIC DIHYDROXYLATION IN THE SYNTHESIS OF BRASSINOSTEROIDS.

Carme Brosa*, Rosa Peracaula, Rita Puig, Mercè Ventura.
Dpt. Química Orgánica, C.E.T.S. Institut Químic de Sarrià, 08017 Barcelona, Spain.

The 22R,23R-homobrassinosteroid analogs are obtained in good yield from the corresponding precursor with a 22E-double bond by osmium-catalyzed asymmetric dihydroxylation using dihydroquinidine 9-O-(9'-phenanthryl) ether (DHQD PHN) as chiral agents.



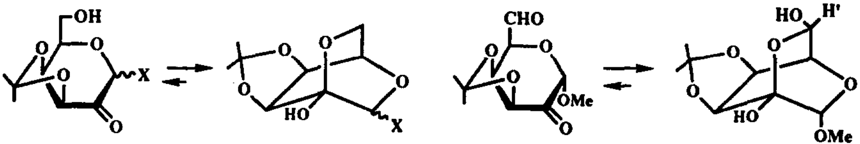
2.6 : 1 (76% yield)

Tetrahedron Lett. **1992**, *33*, 7061

2,5-DIOXABICYCLO[2.2.2]OCTANE RING SYSTEMS IN THE TAUTOMERIC FORMS OF D-*LYXO*-HEXOPYRANOSID-2-ULOSE, 1,5-ANHYDRO-D-TAGATOSE AND D-*LYXO*-HEXODIALDO-1,5-PYRANOSID-2-ULOSE DERIVATIVES

P.L. Barili, G. Berti, F. D'Andrea, V. Di Bussolo, A. Gaudiosi - Dipartimento di Chimica Bioorganica, University of Pisa (Italy).

3,4-O-Isopropylidene derivatives of the title compounds exhibit a high preference for tautomeric bicyclic hemiacetal forms.

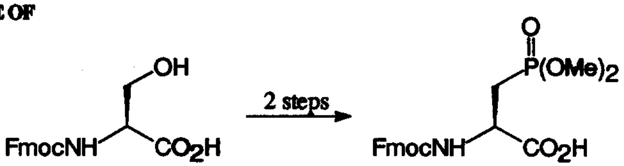


X= α-OMe, β-OMe, H

Tetrahedron Lett. **1992**, *33*, 7065

A SHORT SYNTHESIS OF (S)-3-(DIMETHYLPHOSPHONO)-2-((9-FLUORENYL)METHOXYCARBAMOYL)PROPIONIC ACID, A PROTECTED PHOSPHONIC ACID ANALOGUE OF ASPARTIC ACID

Jonathan P E Hutchinson and Kevin E B Parkes
Roche Products Ltd, PO Box8, Welwyn Garden City,
Hertfordshire, AL7 3AY.



The synthesis, from serine, of a phosphonic acid analogue of aspartic acid protected in a form suitable for peptide synthesis, is described.

Tetrahedron Lett. **1992**, *33*, 7067

An Easy Stereoselective Approach to Polyunsaturated Silylated Sulfides

Vito Fiandanese* and Luigia Mazzone

Centro CNR di Studio sulle Metodologie Innovative di Sintesi Organiche, Dipartimento di Chimica, Università di Bari, via Amendola 173, 70126 Bari, Italy

Stereodefined monosilylated dienyl and trienylsulfides have been easily prepared by means of chemoselective substitution reactions on unsaturated disilyl derivatives