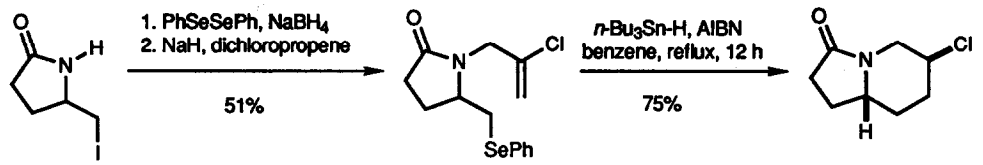
Tetrahedron Lett. **1990**, *31*, 5397

RADICAL BASED ANNULATIONS OF IODO LACTAMS

Spencer Knapp,* Frank S. Gibson, and Yun H. Choe
Department of Chemistry, Rutgers University, New Brunswick, New Jersey 08903

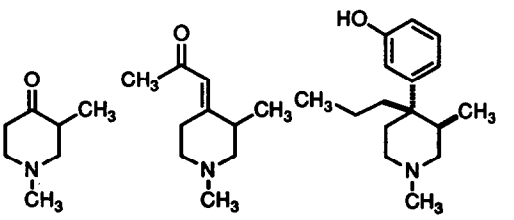


Tetrahedron Lett. **1990**, *31*, 5401

A CONCISE, STEREOSELECTIVE SYNTHESIS OF PICENADOL

Michael J. Martinelli* & Barry C. Peterson
Chemical Process Research & Development
Lilly Research Laboratories, Eli Lilly and Company, Indianapolis, IN 46285

Picenadol (**1**) was prepared in overall four steps from 1,3-dimethyl-4-piperidone (**3**) via a controlled Horner-Wadsworth-Emmons condensation to afford **6**, followed by stereoselective cuprate addition, carbonyl reduction and deprotection.

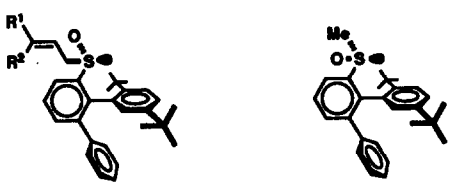


Tetrahedron Lett. **1990**, *31*, 5405

EVALUATION OF A CHIRAL ARYL AUXILIARY DESIGN FOR SULFUR: CONSTRUCTION OF AUXILIARY-MODIFIED REAGENTS AND STEREOSELECTION IN SULFOXIDE FORMATION

Charles S. Swindell* and Frances Rose Blase
Department of Chemistry
Bryn Mawr College
Bryn Mawr, Pennsylvania 19010-2899

Patrick J. Carroll
Department of Chemistry
University of Pennsylvania
Philadelphia, Pennsylvania 19104-6323

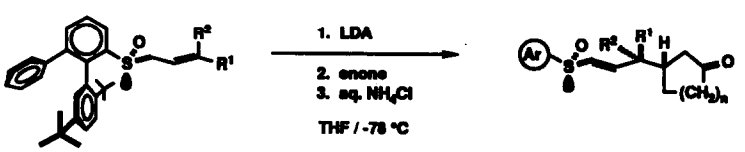


Tetrahedron Lett. **1990**, *31*, 5409

EVALUATION OF A CHIRAL ARYL AUXILIARY DESIGN FOR SULFUR: REGIO- AND DIASTEREOSELECTIVE CONJUGATE ADDITIONS OF AUXILIARY-MODIFIED ALLYLIC SULFOXIDE REAGENTS

Charles S. Swindell* and Frances Rose Blase
Department of Chemistry, Bryn Mawr College
Bryn Mawr, Pennsylvania 19010-2899

Drake S. Eggleston and Jeanette Krause
Smith Kline & French Laboratories, P.O. Box 1539
King of Prussia, Pennsylvania 19406-0939

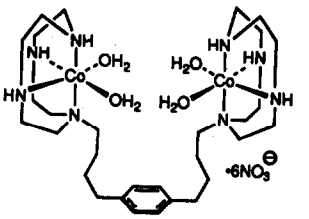


Tetrahedron Lett. **1990**, *31*, 5413

SYNTHESIS AND CHARACTERIZATION OF A REACTIVE BINUCLEAR Co(III) COMPLEX. COOPERATIVE PROMOTION OF PHOSPHODIESTER HYDROLYSIS

Yongseog Chung, Engin U. Akkaya, T. K. Venkatachalam, and Anthony W. Czarnik*, Department of Chemistry, The Ohio State University, Columbus, OH 43210

A binuclear Co(III) complex has been prepared that shows greater reactivity towards bis(p-nitrophenyl)phosphate than two equivalents of the parent mononuclear Co(III) complex.

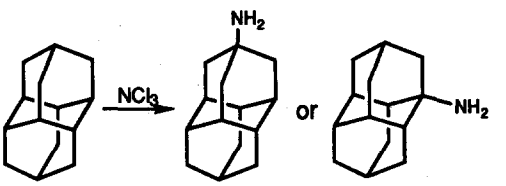


Tetrahedron Lett. **1990**, *31*, 5417

UNUSUAL DEGREE OF SELECTIVITY IN DIAMANTANE DERIVATIZATIONS

Paul A. Cahill
Sandia National Laboratories
Albuquerque, NM 87185

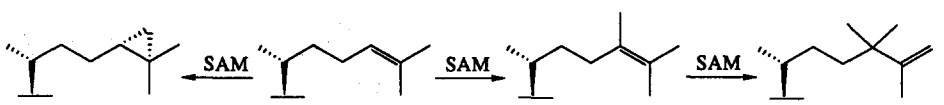
Direct, selective functionalization of diamantane to 1- and 4-aminodiamantanes was obtained with $NCl_3/AlCl_3$. 1- and 4-diamantanethiols were prepared from their respective bromides without rearrangement.



Tetrahedron Lett. **1990**, *31*, 5421

BIOSYNTHETIC STUDIES OF MARINE LIPIDS 28. USE OF SPONGE CELL-FREE EXTRACTS IN THE STUDY OF MARINE STEROL BIOSYNTHESIS.

J.-L. Giner and C. Djerassi*
Dept. of Chemistry, Stanford University, Stanford, CA 94305



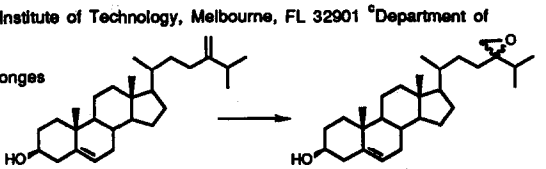
Biomethylation yields unusual sterols in sponge cell-free extracts.

Tetrahedron Lett. **1990**, *31*, 5425

BIOSYNTHETIC STUDIES OF MARINE LIPIDS 29. DEMONSTRATION OF STEROL SIDE CHAIN DEALKYLATION USING CELL-FREE EXTRACTS OF MARINE SPONGES.

Russell G. Kerr,[a] Bill J. Baker,[b] Sutinah L. Kerr[a] and Carl Djerassi[c]* [a]Hopkins Marine Station, Stanford University, Pacific Grove, CA 93950, [b]Department of Chemistry, Florida Institute of Technology, Melbourne, FL 32901 [c]Department of Chemistry, Stanford University, Stanford, CA 94305

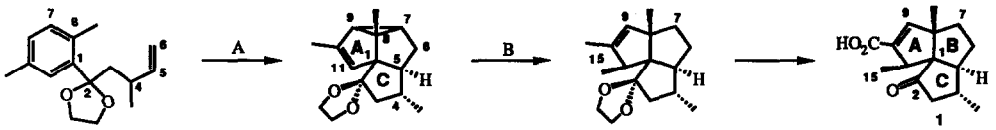
Through the use of cell-free extracts of marine sponges we have demonstrated i) the generality of sterol side chain dealkylation and ii) direct evidence for the epoxidation of 24-methylenecholesterol.



Tetrahedron Lett. **1990**, *31*, 5429

SYNTHETIC STUDIES ON ARENE-OLEFIN CYCLOADDITIONS. XII. TOTAL SYNTHESIS OF (±)-SUBERGORGIC ACID

Paul A. Wender* and Mitch A. deLong, Department of Chemistry, Stanford University, Stanford, CA 94305 USA

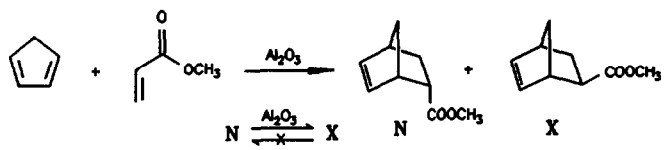


A synthesis of (±)-subergorgic acid (1) is described involving the photocycloaddition (A) of a benzylic ketal and the addition of a formal methyl radical to a vinyl cyclopropane (B).

Tetrahedron Lett. **1990**, *31*, 5433

THE DIELS-ALDER REACTION OF CYCLOPENTADIENE AND METHYL ACRYLATE ON γ-ALUMINA

George Hondrogiannis, Richard M. Pagni,* George W. Kabalka,* Peter Anosike and Robert Kurt, Department of Chemistry, University of Tennessee, Knoxville, TN 37996-1600 USA

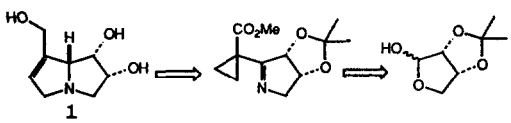


Tetrahedron Lett. **1990**, *31*, 5437

AN ENANTIOSELECTIVE SYNTHESIS OF (+)-CROTANECINE BY AN INTRAMOLECULAR AZIDE 1,3-DIPOLAR CYCLOADDITION

Richard B. Benett III and Jin K. Cha*
Department of Chemistry, Vanderbilt University, Nashville, TN 37235, U.S.A.

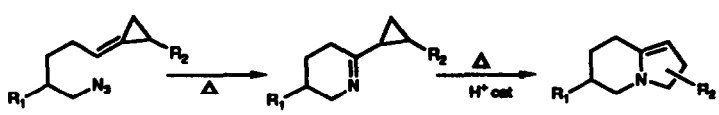
An efficient, enantioselective synthesis of (+)-crotanecine (1) has been accomplished by an intramolecular azide [2+3] dipolar cycloaddition starting from 2,3-*O*-isopropylidene-D-erythrose.



Tetrahedron Lett. **1990**, *31*, 5441

SYNTHESIS OF INDOLIZIDINES BY THE 1,3-DIPOLAR CYCLOADDITION OF AZIDES WITH METHYLENE-CYCLOPROPANES FOLLOWED BY CYCLOPROPYLIMINE REARRANGEMENT

Philip C. Heidt, Stephen C. Bergmeier, William H. Pearson*
Department of Chemistry and Department of Medicinal Chemistry, The University of Michigan, Ann Arbor, MI 48109

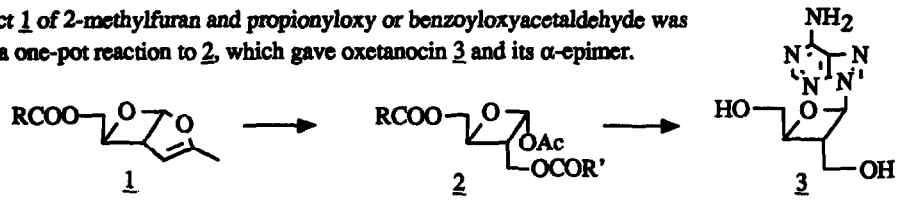


Tetrahedron Lett. **1990**, *31*, 5445

A SHORT SYNTHESIS OF (±)-OXETANOCIN

Robert Hambalek and George Just*
Department of Chemistry, McGill University, Montréal, Québec, Canada H3A 2K6

The photoadduct 1 of 2-methylfuran and propionyloxy or benzoyloxyacetaldehyde was transformed in a one-pot reaction to 2, which gave oxetanocin 3 and its α-epimer.



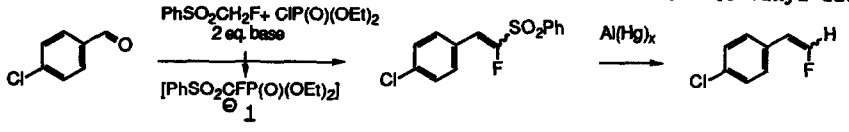
Tetrahedron Lett. **1990**, *31*, 5449

A NEW ROUTE TO VINYL FLUORIDES

James R. McCarthy*, Donald P. Matthews, Michael L. Edwards, David M. Stemerick, Esa T. Jarvi

Merrell Dow Research Institute, 2110 E. Galbraith Road, Cincinnati, Ohio 45215

The carbanion 1, generated in situ from fluoromethyl phenyl sulfone, was utilized for the synthesis of α-fluoro-α,β-unsaturated sulfones which can be converted to vinyl fluorides.

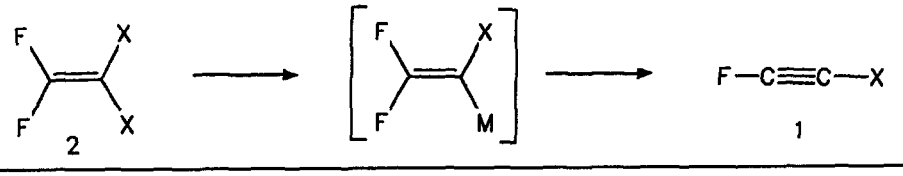


Tetrahedron Lett. **1990**, *31*, 5453

CHLOROFLUOROACETYLENE AND BROMOFLUOROACETYLENE BY GAS PHASE DEHALOGENATION OF 1,1-DIFLUOROETHYLENES

Andreas Runge and Wolfram W. Sander*
Organisch-Chemisches Institut der Universität, Im Neuenheimer Feld 270, D-6900 Heidelberg, FRG

a: X = Cl
b: X = Br

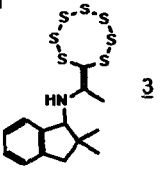


Tetrahedron Lett. **1990**, *31*, 5457

A novel heptathiocane derivative.

William Lutz, Theodor Pilling, Grety Rihs, Hans Rudolf Waespe, Tammo Winkler*
CIBA-GEIGY Ltd., CH-4002 Basel, Switzerland

The reaction of 2,2-dimethyl-1-indanylamine with chloroacetone, CS_2 and sodium ethylate in ethanol in the presence of air produces the heptathiocane derivative 3 in a slow reaction.

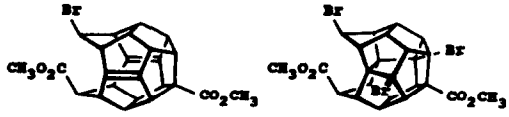


3

Tetrahedron Lett. **1990**, *31*, 5459

MOLECULAR STRUCTURES OF A SECO-DODECAHEDRADIENE AND AN ISO-DODECAHEDRANE

Hermann Irngartinger* and Uwe Reifenstahl
Organisch-chemisches Institut der Universität
6900 Heidelberg
Horst Prinzbach*, Rolf Pinkos and Klaus Weber
Chemisches Laboratorium der Universität
7800 Freiburg



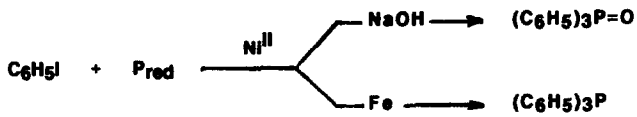
ϕ(C-4(12)) = 35.3° C1-C2: 1.691 Å

Tetrahedron Lett. **1990**, *31*, 5463

ARYLATION OF RED PHOSPHORUS: A NEW WAY TO TRIPHENYLPHOSPHINE OXIDE AND TRIPHENYLPHOSPHINE

Henri-Jean CRISTAU, Jeanick PASCAL and Françoise PLENAT*
Laboratoire de chimie organique, URA N°458, E.N.S.C.M., 8, rue de l'Ecole Normale, 34053-MONTPELLIER Cedex, FRANCE

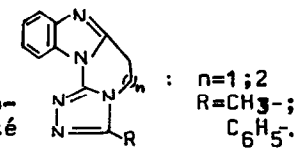
Nickel bromide catalyses the arylation of the allotropic amorphous form red phosphorus. This provides a new way to triphenylphosphine oxide and triphenylphosphine



Tetrahedron Lett. **1990**, *31*, 5467

NOUVELLE VOIE DE SYNTHESE DES COMPOSES HETEROCYCLIQUES DERIVES DU BENZIMIDAZOLE

Omar Cherkaoui, El Mokhtar Essassi
et Rachid Zniber
Laboratoire de Chimie Organique Hétéro-cyclique, Université Mohamed V, Faculté des Sciences, Rabat, Maroc.



: n=1;2
R=CH_3-; C_6H_5-.

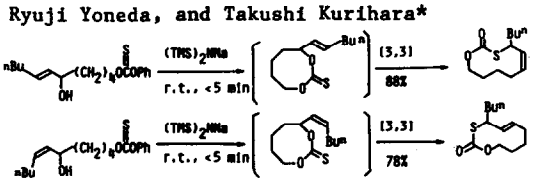
The synthesis of novel triazolo-[1,6-a]- pyrimido and triazolo-1,3-diazepino benzimidazoles is described.

Tetrahedron Lett. **1990**, *31*, 5471

HIGHLY STEREOSELECTIVE SYNTHESIS OF (Z)- or (E)-DOUBLE BONDS WITH CONFORMATIONAL CONTROL IN [3,3]-SIGMATROPIC RING EXPANSION OF 8-MEMBERED THIONOCARBONATES

Shinya Harusawa, Hirotaka Osaki, Harumi Fujii, Ryuji Yoneda, and Takushi Kurihara*

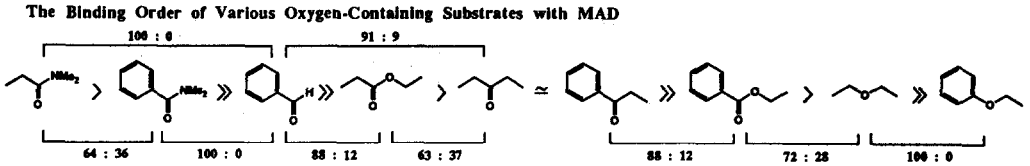
The highly stereoselective synthesis of (Z)- or (E)-double bonds in 10-membered thiol-carbonates was successfully conducted by controling the chairlike-boatlike transition states in the [3,3]-sigmatropic rearrangement of 8-membered thionocarbonates.



Tetrahedron Lett. **1990**, *31*, 5475

MOLECULAR RECOGNITION OF OXYGEN-CONTAINING SUBSTRATES WITH MAD

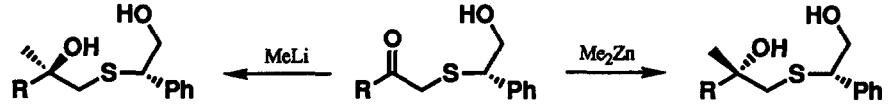
Keiji Maruoka, Shigeru Nagahara, and Hisashi Yamamoto*
Department of Applied Chemistry, Nagoya University, Chikusa, Nagoya 464-01, Japan



Tetrahedron Lett. **1990**, *31*, 5479

EITHER DIASTEREOFACIAL DIFFERENTIATION IN THE REACTION OF CHIRAL THIOMETHYLKETONES WITH APPROPRIATE ORGANOMETALLICS

Tamotsu FUJISAWA,* Isao TAKEMURA, and Yutaka UKAJI
Chemistry Department of Resources, Mie University, Tsu, Mie 514, Japan

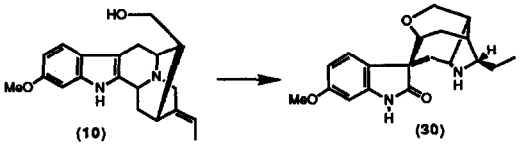


Tetrahedron Lett. **1990**, *31*, 5483

SYNTHETIC STUDIES ON GELSEDINE ALKALOIDS-II: FIRST CONSTRUCTION OF GELSEDINE SKELETON (N_a-DESMETHOXYGELSEMICINE) FROM GARDNERINE BASED ON THE ALTERNATIVE BIOGENETIC SPECULATION.

*Hiromitsu Takayama, Hideo Odaka, Norio Aimi, and Shin-ichiro Sakai**
Faculty of Pharmaceutical Sciences, Chiba University, 1-33, Yayoi-cho, Chiba, 260 Japan

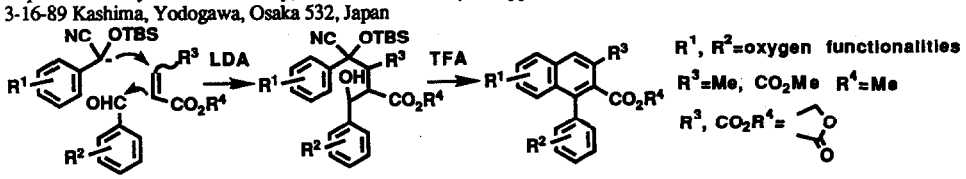
The first and stereospecific preparation of gelsedine (*Gelsemium* alkaloid) skeleton (**30**) starting from gardnerine (**10**) *via* the oxidative rearrangement and removal of the C_{21} carbon was described.



Tetrahedron Lett. **1990**, *31*, 5487

A NEW TWO-STEP SYNTHESIS OF 1-ARYLNAPHTHALENE LIGNANS FROM CYANOHYDRINS

Tsuyoshi Ogiku, Masahiko Seki, Masami Takahashi, Hiroshi Ohmizu, and Tameo Iwasaki*,
Department of Synthetic Chemistry, Research Laboratory of Applied Biochemistry, Tanabe Seiyaku Co., Ltd.,
3-16-89 Kashima, Yodogawa, Osaka 532, Japan

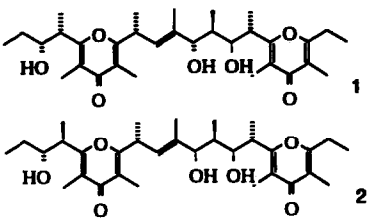


Tetrahedron Lett. **1990**, *31*, 5491

SYNTHETIC STUDIES ON FULLY SUBSTITUTED γ-PYRONE -CONTAINING NATURAL PRODUCTS: SYNTHESIS OF γ-PYRONE DERIVATIVES OBTAINED BY DECOMPOSITION OF PERONIATRIOLS

H. Arimoto, S. Nishiyama, and S. Yamamura,
Dept of Chem, Faculty of Science and Technology, Keio University
Hiyoshi, Yokohama 223, Japan

The partial structures of peroniatriols I and II (1, 2) have been revised by synthesis of optically active γ-pyrone derivatives.

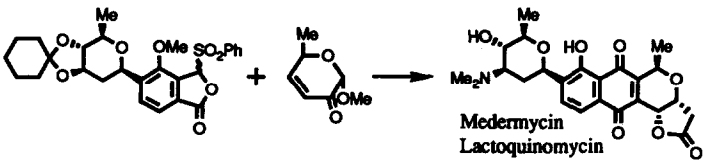


Tetrahedron Lett. **1990**, *31*, 5495

ENANTIOSELECTIVE TOTAL SYNTHESIS OF MEDERMYCIN (LACTOQUINOMYCIN)

Kuniaki Tatsuta*, Hidekazu Ozeki, Mami Yamaguchi, Masashi Tanaka, and Toshiharu Okui
Department of Applied Chemistry, Keio University, 3-14-1 Hiyoshi, Kohoku-Ku, Yokohama 223, JAPAN

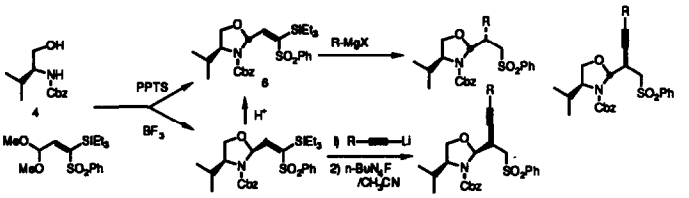
Medermycin has been first synthesized from D-rhamnose derivatives and confirmed to be identical with lactoquinomycin.



Tetrahedron Lett. **1990**, *31*, 5499

Asymmetric Synthesis *via* Heteroconjugate Addition: Valinol Template as Oxazolidine Heteroolefin *vs* Acetylenic Nucleophiles

Minoru Isobe*, Yumi Hirose, Ken-ichiro Shimokawa, Toshio Nishikawa, and Toshio Goto
Laboratory of Organic Chemistry, School of Agriculture, Nagoya University
Chikusa, Nagoya 464, Japan

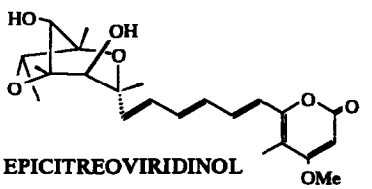


Tetrahedron Lett. **1990**, *31*, 5503

BIOMIMETIC SYNTHESIS OF CITREOVIRIDIN-TYPE COMPOUNDS AND ISOLATION OF EPICITREOVIRIDINOL, A NEW METABOLITE OF PENICILLIUM PEDEMONTANEUM IFO 9583

S. Lai, K. Matsunaga, Y. Shizuri, and S. Yamamura
Dept of Chem., Faculty of Science and Technology, Keio Univ.,
Hiyoshi, Yokohama 223, Japan.

Biomimetic synthesis of epicitreoviridinol and related compounds has successfully been carried out.



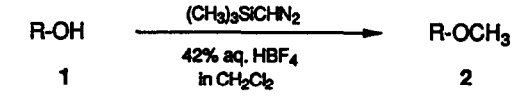
EPICITREOVIRIDINOL

Tetrahedron Lett. **1990**, *31*, 5507

TRIMETHYLSILYLDIAZOMETHANE: A CONVENIENT REAGENT FOR THE O-METHYLATION OF ALCOHOLS

Toyohiko Aoyama* and Takayuki Shioiri
Faculty of Pharmaceutical Sciences, Nagoya City University
Tanabe-dori, Mizuho-ku, Nagoya 467, Japan

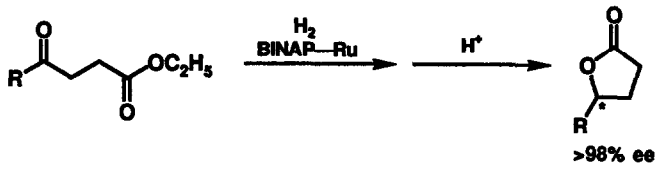
Trimethylsilyldiazomethane smoothly reacts with alcohols in dichloromethane in the presence of 42% aqueous fluoroboric acid to give methyl ethers in good to high yields.



Tetrahedron Lett. **1990**, *31*, 5509

ENANTIOSELECTIVE SYNTHESIS OF 4-SUBSTITUTED γ-LACTONES

T. Ohkuma, M. Kitamura, and R. Noyori
Department of Chemistry, Nagoya University, Chikusa, Nagoya 464-01, Japan



Tetrahedron Lett. **1990**, *31*, 5513

POLAR AND RADICAL BICYCLIZATIONS OF CYCLO-OCT-3-EN-1-YL HYDROPEROXIDE TO AFFORD 2-FUNCTIONALISED-8,9-DIOXABICYCLO[5.2.1]DECANES

A.J. Bloodworth* and Michael D. Spencer
Chemistry Department, University College London, 20 Gordon Street, London WC1H 0AJ (UK).

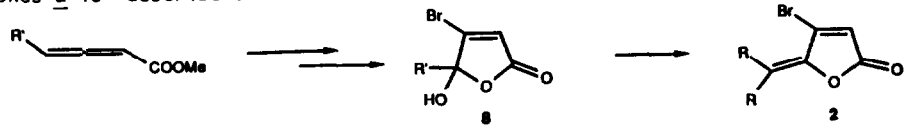
X = HgOAc, HgBr, OH, Br, I, I(*cis*), =O

Tetrahedron Lett. **1990**, *31*, 5517

SYNTHESIS OF 5-ALKYL-4-BROMO-5-HYDROXY-2(5H)-FURANONES AND 5-ALKYLIDENE-4-BROMO-2(5H)-FURANONES

J. Font, A. Gracia, and P. de March
Unitat de Química Orgànica. Universitat Autònoma de Barcelona. 08193 Bellaterra. Spain.

A new entry to 5-alkyl-4-bromo-5-hydroxy-2(5H)-furanones 8 and 5-alkylidene-4-bromo-2(5H)-furanones 2 is described.



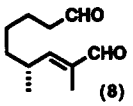
Tetrahedron Lett. **1990**, *31*, 5521

Enantioselective Synthesis of the C3-C11 Hydrocarbon Fragment of the Ionophore Antibiotic Tetronasin (ICI 139603)

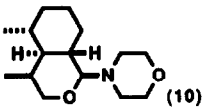
Steven V. Ley*, Graham N. Maw and Mark L. Trudell

Dept. of Chemistry, Imperial College of Science, Technology and Medicine, London SW7 2AY, U.K.

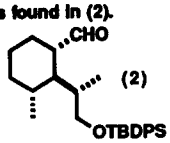
Enantioselective synthesis of the C3-C11 fragment (2) of tetronasin (1) has been completed *via* an enamine-enal cyclisation of (8). This afforded the aminal (10) in excellent yield, which possesses all four of the stereocentres found in (2).



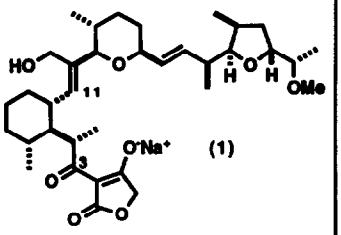
(8)



(10)



(2)



(1)

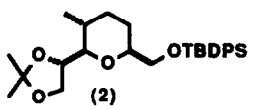
Tetrahedron Lett. **1990**, *31*, 5525

Synthesis of the C12-C26 Fragment of the Acyltetronic Acid Ionophore Antibiotic Tetronasin (ICI 139603)

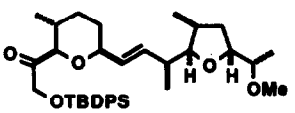
Stephen E. de Laszlo, Mark J. Ford, Steven V. Ley* and Graham N. Maw

Dept. of Chemistry, Imperial College of Science, Technology and Medicine, London SW7 2AY, U.K.

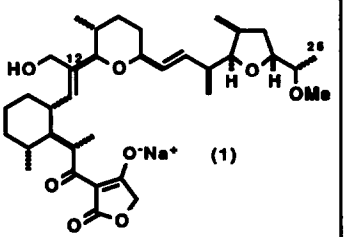
Preparation of a tetrahydropyran portion (2) of the antibiotic tetronasin (1) has been achieved. Further manipulation afforded the C12-C26 (3) fragment of tetronasin, identical to that obtained by natural product degradation.



(2)



(3)



(1)