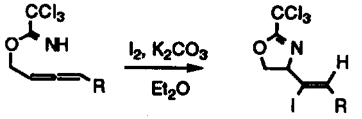
GRAPHICAL ABSTRACTS

Tetrahedron Lett. **1993**, *34*, 5983

Iodocyclization Reactions of α-Allenic Alcohol Derivatives. Stereoselective Formation of Z-4-(1-Iodo-2-alkyl)ethylene-2-trichloromethyl-4,5-dihydro-1,3-oxazoles.

Richard W. Friesen,* André Giroux and Katherine L. Cook
Merck Frosst Centre for Therapeutic Research, P.O. Box 1005, Pointe Claire-Dorval, Quebec Canada H9R 4P8

Primary α-allenic alcohol trichloroacetimidates are converted with high stereoselectivity into the title compounds upon treatment with iodine.

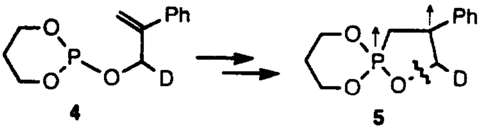


Tetrahedron Lett. **1993**, *34*, 5987

Effect of Placement of Phosphorus in a Ring on the Triplet-Sensitized Photorearrangements of 2-Phenylallyl Phosphites

Srinivasan Ganapathy, R. Thomas Cambron, Kevin P. Dockery, Yuh-Wern Wu, Joel M. Harris,* and Wesley G. Bentrude*, Department of Chemistry, University of Utah, Salt Lake City, Utah 84112

2-Phenylallyl 1,3,2-dioxaphosphorinane, phosphite 4, undergoes triplet-sensitized photorearrangement to the phosphonate, 50-100 times less efficiently than does its acyclic counterpart. This effect likely results from a much-reduced rate of permutational exchange of ring substituents in the proposed spiro 1,3-phosphoranyl biradical intermediate, 5.



Tetrahedron Lett. **1993**, *34*, 5991

NMR AND MOLECULAR MECHANICS STUDIES OF THE CONFORMATIONAL DYNAMICS OF TRICYCLO[3.3.3.$0^{3,7}$]-UNDECANE DERIVATIVES.

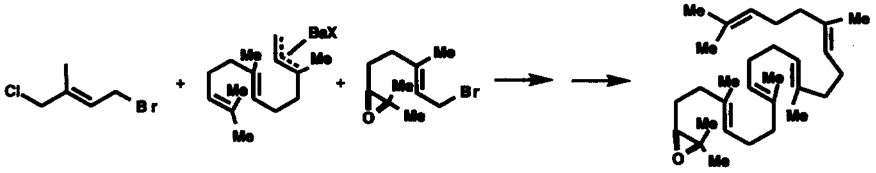
Joseph M. Smith, David A. Hrovat, and Weston Thatcher Borden,* Department of Chemistry, University of Washington, Seattle, WA 98195, USA

Dynamic NMR studies and molecular mechanics calculations both indicate that twisting about the C_3-C_7 bond facilitates flipping of the trimethylene bridge in the tricyclo[3.3.3.$0^{3,7}$]undecane ring system.

Tetrahedron Lett. **1993**, *34*, 5995

A SHORT AND CONVERGENT ENANTIOSELECTIVE SYNTHESIS OF (3*S*)-2,3-OXIDOSQUALENE

E. J. Corey, Mark C. Noe and Wen-Chung Shieh
Department of Chemistry, Harvard University, Cambridge, Massachusetts, 02138

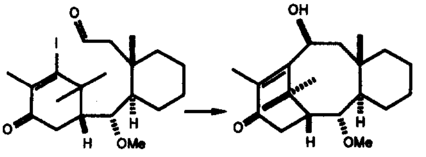


Tetrahedron Lett. **1993**, *34*, 5999

Synthetic Studies Toward the Taxane Class of Natural Products

Michael H. Kress, Réjean Ruel, William H. Miller, and Yoshito Kishi*
Department of Chemistry, Harvard University,
Cambridge, Massachusetts 02138, U.S.A.

The tricyclic enone 12, containing the taxane ring system, has been synthesized, using an intramolecular Ni(II)/Cr(II)-mediated coupling of β-iodoenone aldehyde 11 as the key step.



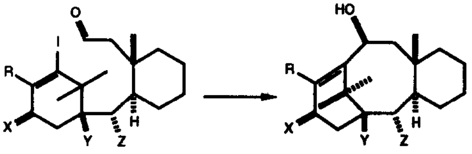
11 12

Tetrahedron Lett. **1993**, *34*, 6003

Investigations of the Intramolecular Ni(II)/Cr(II)-Mediated Coupling Reaction: Application to the Taxane Ring System

Michael H. Kress, Réjean Ruel, William H. Miller, and Yoshito Kishi*
Department of Chemistry, Harvard University,
Cambridge, Massachusetts 02138, U.S.A.

The intramolecular Ni(II)/Cr(II)-mediated coupling reaction of activated olefins with aldehydes is studied in order to identify an ideal arrangement of functionality for construction of the taxane ring system.

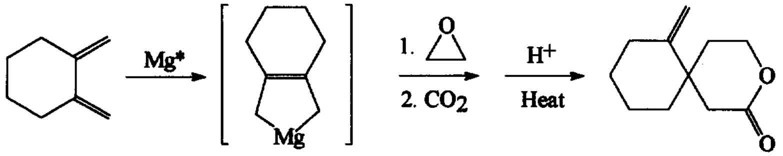


$X=H_2$ or O, Y=H and Z=OMe ; $X=H_2$ and $Y=Z=OCH_2$

Tetrahedron Lett. **1993**, *34*, 6007

DIRECT SYNTHESIS OF SPIRO δ-LACTONES FROM CONJUGATED DIENES AND EPOXIDES. Matthew S. Sell, Heping Xiong, and Reuben D. Rieke*, Department of Chemistry, University of Nebraska-Lincoln, Lincoln, Nebraska 68588-0304

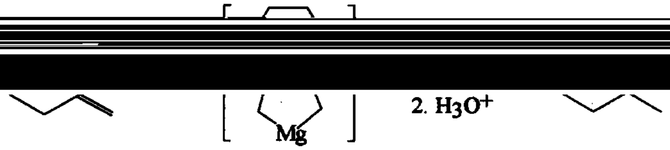
Spiro δ-lactones have been prepared in a one-pot process from 1,3-dienes and epoxides mediated by active magnesium in good isolated yields.



Tetrahedron Lett. **1993**, *34*, 6011

PREPARATION OF ALCOHOLS AND 1,2-DIOLS FROM EPOXIDES AND 1,3-DIENES. Matthew S. Sell, Heping Xiong, and Reuben D. Rieke*, Department of Chemistry, University of Nebraska-Lincoln, Lincoln, Nebraska 68588-0304

Formation of both alcohols and 1,2-diols containing a quaternary carbon center can be achieved in high yields in one-pot utilizing active magnesium, epoxides, and 1,3-dienes.

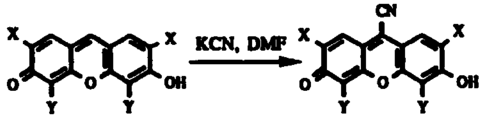


Tetrahedron Lett. **1993**, *34*, 6013

Xanthenes: Fluorone Derivatives II

Jianmin Shi, Xian-ping Zhang and Douglas C. Neckers*
Center for Photochemical Sciences, Bowling Green State University, Bowling Green, Ohio 43403

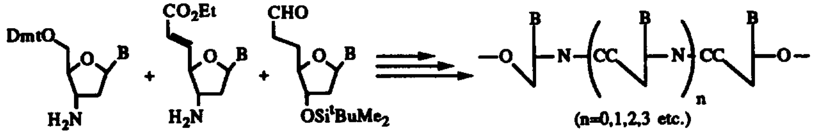
A series of 9-hydrogen and 9-cyano substituted xanthenes was synthesized and their absorption spectra are compared. It was found that the cyano group at the C-9 position can produce large bathochromic shifts (about 100 nm).



Tetrahedron Lett. **1993**, *34*, 6017

The Synthesis of Modified Achiral Internucleoside Linkages: -NHCH$_2$CH$_2$-Linked Oligonucleosides A. K. Saha*, W. Schairer, C. Waychunas, C.V.C. Prasad, M. Sardaro, D. A. Upson, L. I. Kruse, Departments of Medicinal Chemistry and Analytical Sciences, Sterling Winthrop Pharmaceuticals Research Division, 25 Great Valley Parkway, Malvern, PA 19355

A method for the synthesis of oligonucleosides uniformly linked by the NHCH$_2$CH$_2$ moiety is described.

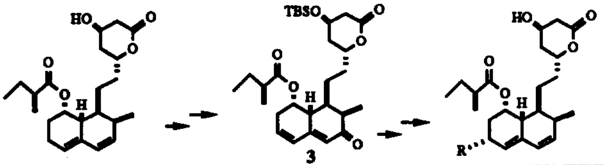


Tetrahedron Lett. **1993**, *34*, 6021

Stereocontrolled Functionalization of the Diene System of Compactin

Chris H. Senanayake,* Timothy J. Bill, Lisa M. DiMichele, Cheng Y. Chen, Robert D. Larsen, Thomas R. Verhoeven and Paul J. Reider Process Research, Merck Research Laboratories, P.O. Box 2000, Rahway, New Jersey 07065, USA.

A facile regio- and stereoselective γ- funtionalization of the 1,3 diene system of compactin via the key dienone 3 is described.

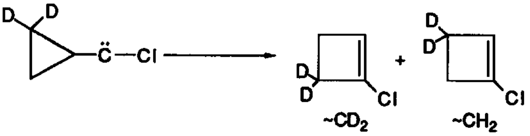


Tetrahedron Lett. **1993**, *34*, 6025

THE α-SECONDARY ISOTOPE EFFECT IN THE 1,2-C REARRANGEMENT OF CYCLOPROPYLCHLOROCARBENE.

R.A. Moss, W. Liu, and K. Krogh-Jespersen, Department of Chemistry, Rutgers University, New Brunswick, New Jersey 08903

The α-secondary kinetic isotope effect for rearrangement of cyclopropylchlorocarbene to chlorocyclobutene is k_H/k_D = 1.20 at 21°C. Ab initio calculations ascribe the effect to hybridization changes at the migrant carbon atom.

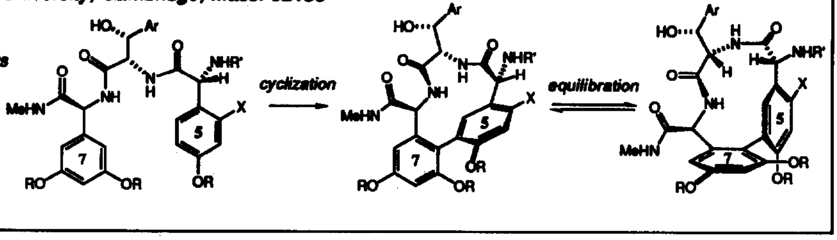


Tetrahedron Lett. **1993**, *34*, 6029

Kinetic and Thermodynamic Atropdiastereoselection in the Synthesis of the M(5-7) Tripeptide Portion of Vancomycin

David A. Evans* and Christopher J. Dinsmore
Department of Chemistry, Harvard University, Cambridge, Mass. 02138

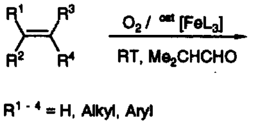
The interaction of the arylglycine-5 C_α stereocenter with adjacent substituents controls kinetic selectivity in the illustrated cyclization, and strongly influences the thermodynamic biaryl equilibrium value.

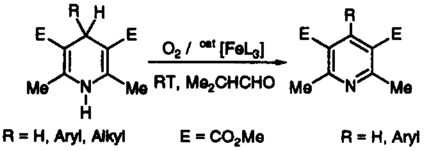


Tetrahedron Lett. **1993**, *34*, 6033

AEROBIC OXYGENATION / DEHYDROGENATION OF OLEFINS AND 1,4-DIHYDROPYRIDINES CATALYZED BY TRIS(TETRAZOLYL ENOLATE)IRON(III) COMPLEXES

Rolf W. Saalfrank*, Stefan Reihs and Martin Hug
Institut für Organische Chemie der Universität Erlangen-Nürnberg
Henkestrasse 42, D-91054 Erlangen

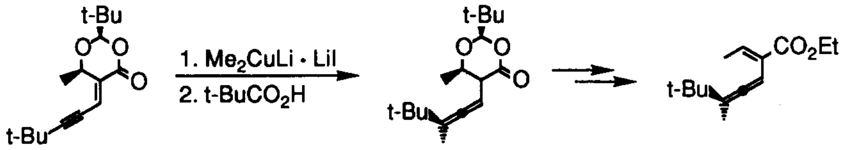




Tetrahedron Lett. **1993**, *34*, 6037

Diastereoselective 1,6-Addition Reactions of Organocuprates to Chiral 5-Alkynylidene-1,3-dioxan-4-ones

Gabriele Handke and Norbert Krause*
Institut für Organische Chemie der TH Darmstadt, Petersenstraße 22, D-64287 Darmstadt, Germany

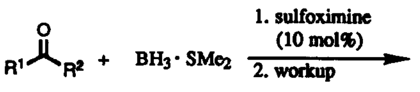


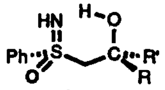
Tetrahedron Lett. **1993**, *34*, 6041

β-HYDROXYSULFOXIMINES IN THE CATALYZED ENANTIOSELECTIVE REDUCTION OF KETONES WITH BORANE

Carsten Bolm* and Marcel Felder
Department of Chemistry, University of Basel, St. Johanns-Ring 19, CH-4056 Basel (Switzerland)

Optically active β-hydroxysulfoximines catalyze the asymmetric borane reduction of ketones affording secondary alcohols in high yields with good enantioselectivities (up to 93% ee).





sulfoximine

Tetrahedron Lett. **1993,** *34*, 6045

THE ANODIC ACETOXYLATION OF ALKYLARYL SELENIDES

Viatcheslav Jouikov*, Valery Ivkov and Dina Fattahova.
Physical Chemistry Department, Kazan State University,
420008 Kazan, RUSSIA

Electrooxidation of alkylarylselenides in methanol in the presence of acetate ion leads to the acetoxylation of the methylene group of selenides

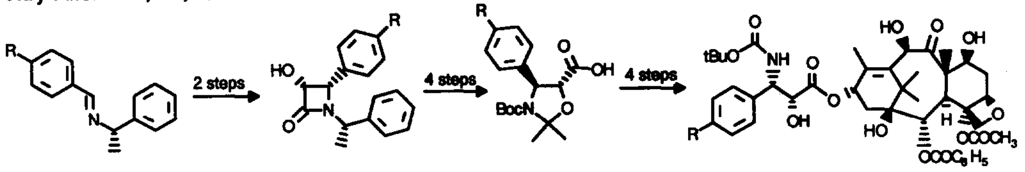
$$\mathrm{ArSeCH_2R} \overset{-e}{\rightleftharpoons} \left[\mathrm{ArSeCH_2R}\right]^{+\cdot} \xrightarrow[-\mathrm{BH}]{-e,\,B} \mathrm{ArSe\overset{+}{C}HR} \xrightarrow{\mathrm{AcO^-}} \mathrm{ArSeCH(R)O\underset{\overset{\|}{O}}{C}CH_3}$$

$$B = \mathrm{Ac\bar{O}},\ \mathrm{Py}$$

Tetrahedron Lett. **1993,** *34*, 6049

A Practical Access to Chiral Phenylisoserinates, Preparation of Taxotere® Analogs

J.D. Bourzat and A. Commerçon*, Rhône-Poulenc Rorer S.A.- Centre de Recherches de Vitry-Alfortville, 13, Quai Jules Guesde - BP14 - 94403 Vitry-sur-Seine (France)

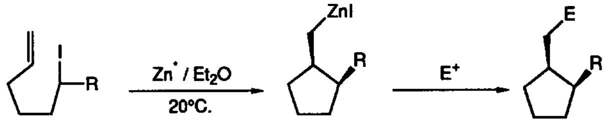


Tetrahedron Lett. **1993,** *34*, 6053

Intramolecular Carbometallation of Secondary Organozinc Reagents.

Christophe Meyer, Ilane Marek* , Gilles Courtemanche, Jean-F. Normant*
Laboratoire de Chimie des Organoéléments, CNRS UA 473, Université P. et M. Curie, 4 Place Jussieu, F-75252 Paris Cedex 05, France

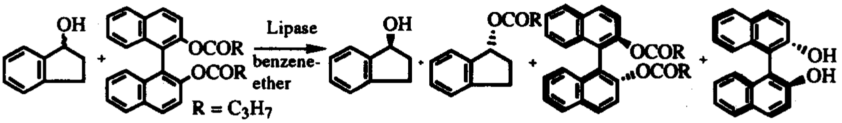
The intramolecular carbocyclization of secondary organozinc derivatives allows the preparation of cis-substituted cyclopentylmethylzinc derivatives in an easy and straightforward way.



Tetrahedron Lett. **1993,** *34*, 6057

"Triple Enantioselection" by an Enzyme-Catalyzed Transacylation Reaction.

Gialih Lin,* Shih-Huang Liu, Show-Jane Chen, Fang-Chen Wu , and Hwey-Lin Sun
Department of Chemistry, National Chung-Hsing University, Taichung 400, Taiwan

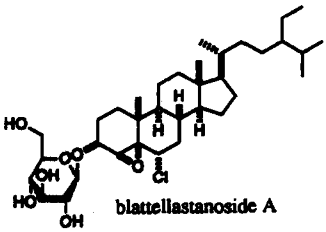


$R = C_3H_7$

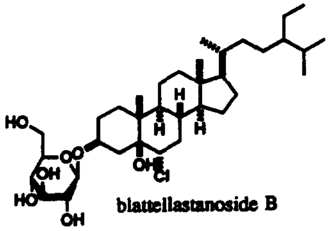
Tetrahedron Lett. 1993, *34*, 6059

NOVEL STEROID GLYCOSIDES AS AGGREGATION PHEROMONE OF THE GERMAN COCKROACH.

Masayuki Sakuma* and Hiroshi Fukami,
Pesticide Research Institute,
Faculty of Agriculture,
Kyoto University
Kitashirakawa, Sakyo-ku,
Kyoto 606-01, Japan



blattellastanoside A



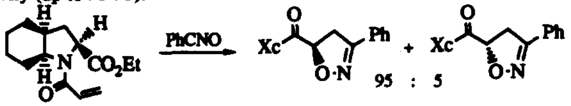
blattellastanoside B

Tetrahedron Lett. 1993, *34*, 6063

ASYMMETRIC 1,3-DIPOLAR CYCLOADDITION OF NITRILE OXIDES TO NEW CHIRAL ACRYLAMIDES DERIVED FROM (S)-INDOLINE-2-CARBOXYLIC ACID

Yong Hae Kim,* Sung Han Kim, Doo Han Park
Department of Chemistry, Korea Advanced Institute of Science and Technology, 373-1, Kusong Dong, Yusong Gu, 305-701, Korea

Asymmetric 1,3-dipolar cycloaddition of nitrile oxides to new chiral acrylamides is reported to give the chiral Δ^2-isoxazolines with the high diastereoselectivity (up to 95 : 5).

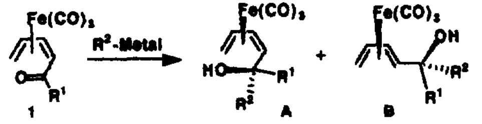


Tetrahedron Lett. 1993, *34*, 6367

NOVEL ISOMERIZATION AND SEQUENTIAL 1,2-NUCLEOPHILIC ADDITION OF ACYCLIC DIENONE-IRON TRICARBONYL COMPLEXES. HIGHLY STEREOSELECTIVE SYNTHESIS OF TERTIARY ALCOHOLS

Yoshiji Takemoto, Jun Takeuchi, and Chuzo Iwata*
Faculty of Pharmaceutical Sciences, Osaka University, 1-6 Yamada-Oka, Suita, Osaka 565, Japan

Z-Dienone complex **1** gave *Z*-dienol complex **A** exclusively by the reaction with organolithium reagent. Similar treatment of **1** with alkylaluminum, however, provided *E*-dienol complex **B** as a single product.



RLi	(A : B = 100 : 0)
$(allyl)_2CuMgBr \cdot BF_3$	(A : B = 100 : 0)
Et_3Al	(A : B = 0 : 100)

Tetrahedron Lett. 1993, *34*, 6069

ABSOLUTELY DIASTEREOSELECTIVE 1,2-NUCLEOPHILIC ADDITION OF ORGANOMETALLIC REAGENTS TO IMINES USING DIENE-IRON TRICARBONYL CHIRALITY

Yoshiji Takemoto, Jun Takeuchi, and Chuzo Iwata*
Faculty of Pharmaceutical Sciences, Osaka University, 1-6 Yamada-Oka, Suita, Osaka 565, Japan

The reaction of alkylcerium reagents with 1-iminodiene-iron complex gave corresponding secondary amines **A** exclusively.

$RCeCl_2$	(A : B = 100 : 0)
$R_2CuMgBr \cdot BF_3$	(A : B = 74 : 26)

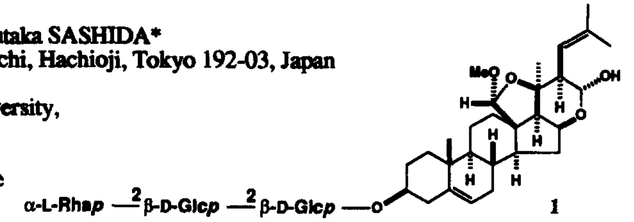
(R = n-Bu, allyl, Me, Ph)

Tetrahedron Lett. **1993,** *34,* 6073

Structure of a Novel 22-Homo-23-norcholestane Trisaccharide from *Ornithogalum saundersiae*

Minpei KURODA, Yoshihiro MIMAKI and Yutaka SASHIDA*
Tokyo College of Pharmacy, 1432-1, Horinouchi, Hachioji, Tokyo 192-03, Japan
Tamotsu NIKAIDO and Taichi OHMOTO
School of Pharmaceutical Sciences, Toho University,
2-2-1, Miyama, Funabashi, Chiba 274, Japan

The structure of 1 was determined by extensive 2D NMR analysis and hydrolysis.



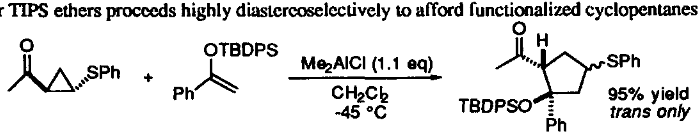
1

Tetrahedron Lett. **1993,** *34,* 6077

Diastereoselective [3 + 2] Cycloaddition of Methyl 2-Phenylthiocyclopropyl Ketone with Enol Silyl Ethers: Synthesis of Functionalized Cyclopentanes.

Yoshiaki Horiguchi, Ichiro Suchiro, Ayumi Sasaki, and Isao Kuwajima*
Department of Chemistry, Tokyo Institute of Technology, Meguro, Tokyo 152, Japan

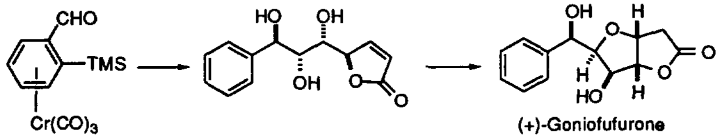
Dimethylaluminum chloride-mediated [3 + 2] cycloaddition of methyl 2-phenylthiocyclopropyl ketone and enol TBDPS or TIPS ethers proceeds highly diastereoselectively to afford functionalized cyclopentanes in good yields.



Tetrahedron Lett. **1993,** *34,* 6081

AN OPTICALLY ACTIVE CHROMIUM(0)-COMPLEXED BENZALDEHYDE DERIVATIVE IN ORGANIC SYNTHESIS: A HIGHLY STEREO-CONTROLLED TOTAL SYNTHESIS OF (+)-GONIOFUFURONE

Faculty of Pharmaceutical Sciences, Kanazawa University, Kanazawa 920, Japan. (+)-Goniofufurone was synthesized from chiral chromium(0)-complexed benzaldehyde derivative *via* the triol in a highly stereoselective manner.



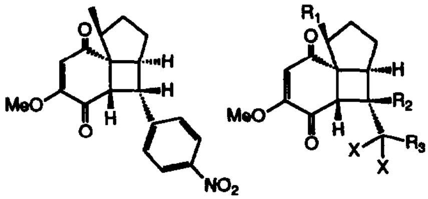
(+)-Goniofufurone

Tetrahedron Lett. **1993,** *34,* 6083

Facile Syntheses of Tricyclo[5.4.0.$0^{1,5}$]undec-9-ene-8,11-diones from Phenols with an Olefin Bearing an Electron-attracting Group at the Side Chain

Shojiro Maki, Seiji Kosemura, Shosuke Yamamura*, and Shigeru Ohba
Dept. of Chem., Faculty of Science and Technology, Keio University,
Yokohama 223, Japan.

3,4-Dimethoxyphenols with a cis *p*-nitrostyryl group or an α,β-unsaturated CO group at the side chain were converted into the corresponding tricyclo-[5.4.0.$0^{1,5}$]undec-9-ene-8,11-diones.

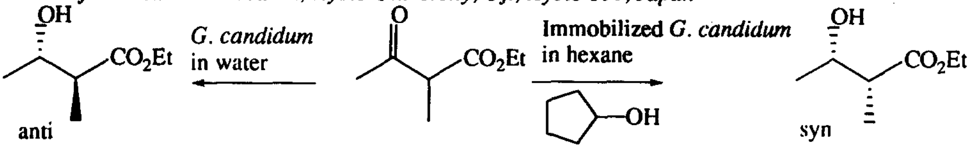


Tetrahedron Lett. **1993**, *34*, 6087

Diastereoselective Reduction of Ethyl α-methyl-β-oxobutanoate by Immobilized *Geotrichum candidum* in an Organic Solvent

Kaoru Nakamura, Satoshi Takano, and Atsuyoshi Ohno

Institute for Chemical Research, Kyoto University, Uji, Kyoto 611, Japan

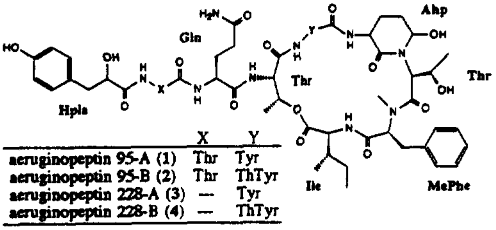


Tetrahedron Lett. **1993**, *34*, 6091

OCCURRENCE OF FOUR DEPSIPEPTIDES, AERUGINOPEPTINS, TOGETHER WITH MICROCYSTINS FROM TOXIC CYANOBACTERIA

Ken-ichi Harada,* Tsuyoshi Mayumi, Takayuki Shimada, Makoto Suzuki, Faculty of Pharmacy, Meijo University, Tempaku, Nagoya 468, Japan
Fumio Kondo, Aichi Prefectural Institute of Public Health, Tsuji-machi, Kita, Nagoya 462, Japan
Mariyo F. Watanabe, Tokyo Metropolitan Research Laboratory of public health, shinjuku, Tokyo 169, Japan

Four novel depsipeptides, aeruginopeptins (1-4) were isolated from toxic cyanobacteria *Microcystis aeruginosa* TAC 95 and M228. Their structures were mainly determined by 2D-NMR techniques and MS/MS method.

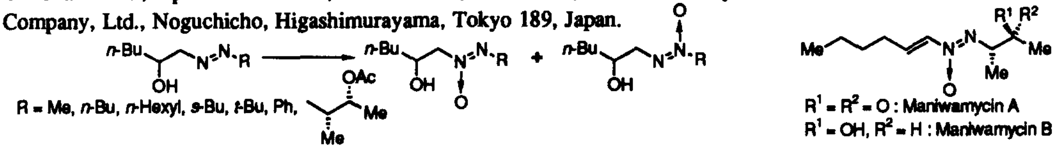


	X	Y
aeruginopeptin 95-A (1)	Thr	Tyr
aeruginopeptin 95-B (2)	Thr	ThTyr
aeruginopeptin 228-A (3)	—	Tyr
aeruginopeptin 228-B (4)	—	ThTyr

Tetrahedron Lett. **1993**, *34*, 6095

REGIOSELECTIVE OXIDATION OF β-HYDROXYAZO COMPOUNDS TO β-HYDROXYAZOXY COMPOUNDS AND ITS APPLICATION TO SYNTHESES OF MANIWAMYCINS A AND B

M. Nakata,* S. Kawazoe, T. Tamai, K. Tatsuta, Department of Applied Chemistry, Keio Univ., Hiyoshi, Kohoku-ku, Yokohama 223, Japan. H. Ishiwata, Y. Takahashi,* Y. Okuno, T. Deushi, Tokyo Research Laboratories, Kowa Company, Ltd., Noguchicho, Higashimurayama, Tokyo 189, Japan.

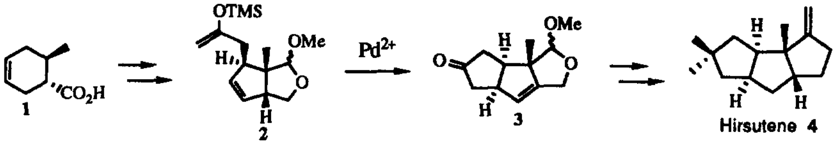


Tetrahedron Lett. **1993**, *34*, 6099

Pd^{2+}-Promoted Cyclization in Linear Triquinane Synthesis Total Synthesis of (±)-Hirsutene.

Masahiro Toyota, Youichi Nishikawa, Kayoko Motoki, Naomi Yoshida, and Keiichiro Fukumoto
Pharmaceutical Institute, Tohoku University, Aobayama, Sendai 980, Japan

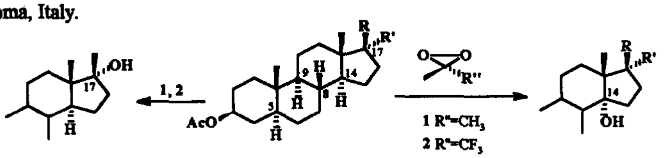
Pd^{2+}-promoted cyclization reaction (2 → 3) is used as a key step in the synthesis of (±)-hirsutene 4.



Tetrahedron Lett. **1993**, *34*, 6103

OXYFUNCTIONALIZATION OF STEROIDS BY DIOXIRANES: SITE AND STEREOSELECTIVE C_{14} AND C_{17} HYDROXYLATION OF PREGNANE AND ANDROSTANE STEROIDS

Paolo Bovicelli, Paolo Lupattelli, Ventura Florini, Centro C.N.R. di Studio per la Chimica delle Sostanze Organiche Naturali, Dipartimento di Chimica, Università "La Sapienza", P.le A. Moro, 5 - 00185 Roma, Italy.
Enrico Mincione, D.A.B.A.C., Università della Tuscia, V. S. Camillo De Lellis, 01100 Viterbo, Italy.



Dimethyldioxirane showed to be site and stereoselective in the C-H oxygen insertion at C_{14} and C_{17} positions of pregnane and androstane steroids. Fine steric control and evidence of the influence of the carbonyl group are reported.

Tetrahedron Lett. **1993**, *34*, 6105

A NEW METHOD FOR THE PREPARATION OF (ARYLSULFONYLIMINOIODO)BENZENES

Gábor Besenyei, Sándor Németh and László I. Simándi
Central Research Institute for Chemistry of the Hungarian Academy of Sciences,
H-1525 Budapest, P.O. Box 17, Hungary

In suitable solvents iodobenzene dimethoxide (1) reacts with various sulfonamides to give (arylsulfonyliminoiodo)benzenes 3 in good yield:

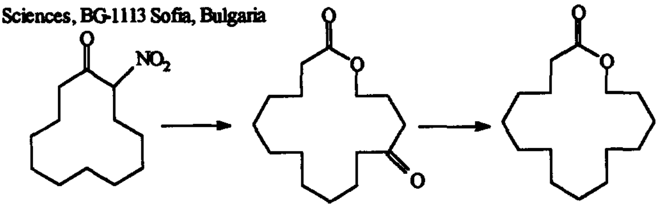
$$\underset{(1)}{PhI(OMe)_2} + ArSO_2NH_2 \xrightarrow[-2MeOH]{solvent} \underset{(3)}{ArSO_2N{=}IPh}$$

Tetrahedron Lett. **1993**, *34*, 6107

A SHORT SYNTHESIS OF 15-PENTADECANOLIDE

Stephan Stanchev*[a], Branimir Milenkov[a] and Manfred Hesse[b]
[a] Institute of Organic Chemistry, Bulgarian Academy of Sciences, BG-1113 Sofia, Bulgaria
[b] Institute of Organic Chemistry, University of Zürich, Winterthurerstrasse 190, CH-8057 Zürich, Switzerland

15-Pentadecanolide was synthesized by a five step, two pot reaction sequence in 60% overall yield, starting from 2-nitrocyclododecanone (1).



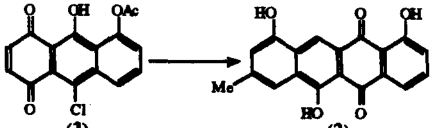
1 2 3

Tetrahedron Lett. **1993**, *34*, 6109

SYNTHESIS OF NAPHTHACENEQUINONES BY CYCLOADDITION AND DEOXYGENATION METHODOLOGY: SYNTHESIS OF SS-228R.

Donald W. Cameron and (the late) Geoffrey I. Feutrill, School of Chemistry, The University of Melbourne, Parkville, Victoria, 3052, Australia. Colin L. Gibson, Department of Pure & Applied Chemistry, University of Strathclyde, Glasgow, G1 1XL

The naphthacenequinone SS-228R (2) was synthesized by a short regioselective sequence from the 1,4-anthraquinone (3) using cycloaddition and deoxygenation methodology



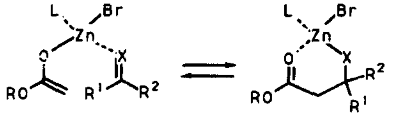
(3) (2)

Tetrahedron Lett. **1993**, *34*, 6111

TRANSITION STRUCTURES FOR THE REFORMATSKY REACTION. A THEORETICAL (MNDO-PM3) STUDY.

Jaione Maiz, Ana Arrieta, Xabier Lopez, Jesus M. Ugalde and Fernando P. Cossío*.Kimika Fakultatea. Euskal Herriko Unibertsitatea. P.K. 1072. 20080 San Sebastián-Donostia. Spain. Begoña Lecea. Farmazi Fakultatea. Euskal Herriko Unibertsitatea. 01007 Vitoria-Gasteiz. Spain.

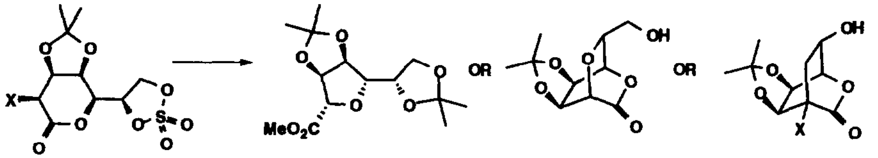
Abstract. Computational studies (MNDO-PM3) on the reaction between the Reformatsky reagent of methyl bromoacetate and formaldehyde or methanimine, predict that the Reformatsky reaction takes place preferably through a twisted boat transition state.



Tetrahedron Lett. **1993**, *34*, 6115

CYCLIC SULPHATES OF δ-LACTONES IN THE SYNTHESIS OF TETRAHYDROFURANS TETRAHYDROPYRANS AND CYCLOHEXANES

Ben M. Skead, George W. J. Fleet, John Saunders and R. Brian Lamont
Dyson Perrins Laboratory, Oxford Centre for Molecular Sciences, South Parks Road, Oxford OX1 3QY UK
Glaxo Group Research Limited, Greenford Road, Greenford, Middlesex UB6 0HE

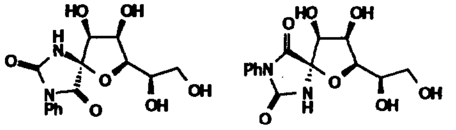


Tetrahedron Lett. **1993**, *34*, 6119

ANOMERIC SPIROHYDANTOINS OF MANNOFURANOSE: APPROACHES TO NOVEL ANOMERIC AMINO ACIDS BY AN OXIDATIVE RING CONTRACTION

J. W. Burton, J. C. Son, A. J. Fairbanks, S. S. Choi, H. Taylor, D. J. Watkin, B. Winchester G. W. J. Fleet
Dyson Perrins Laboratory, Oxford Centre for Molecular Sciences, South Parks Road, Oxford OX1 3QY UK
Chemical Crystallography Laboratory, Oxford University, 9 Parks Road, Oxford OX1 3PD UK
Institute of Child Health, University of London, 30 Guilford Street, London WC1N 1EH

N-Phenylhydantoins of mannofuranose were prepared *via* a bromine induced oxidative ring contraction of an α-amino-δ-lactone

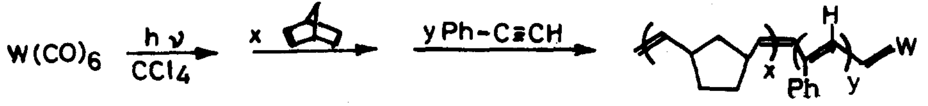


Tetrahedron Lett. **1993**, *34*, 6123

SYNTHESIS OF HOMO AND BLOCK COPOLYMERS OF NORBORNENE WITH W(CO)$_6$ VIA PHOTOINITIATION.

B.Gita and G.Sundararajan*, Department of Chemistry, Indian Institute of Technology, Madras 600 036. India.

Homo and block copolymers of norbornene have been synthesised employing W(CO)$_6$/hv indicating formation of a metallacarbene.

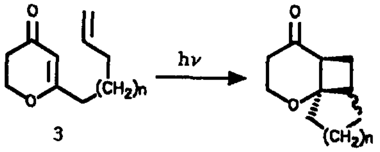


Tetrahedron Lett. **1993**, *34*, 6127

Studies on the Intramolecular [2+2] Photocycloaddition of Dihydro-4-pyrones

Nizar Haddad* and Irina Kusmenkov
Department of Chemistry, Technion, Israel Institute of Technology, Haifa 32000, ISRAEL.

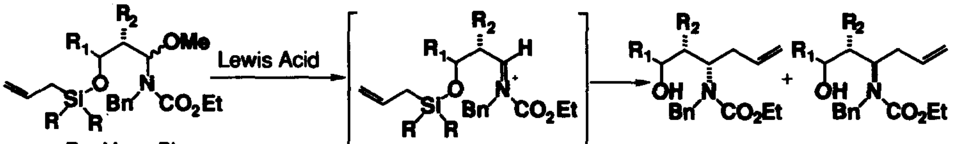
Dihydropyrones 3 shown to undergo intramolecular photocycloaddition in high regioselectivity and good yields



Tetrahedron Lett. **1993**, *34*, 6131

Intramolecular Amidoalkylation of Chiral Iminium Ions: Stereoselective Synthesis of *syn*-1,3-Aminoalcohols

Hideaki Hioki,* Manabu Okuda, Waka Miyagi and Shô Itô
Faculty of Pharmaceutical Sciences, Tokushima Bunri University, Yamashirocho, Tokushima, 770 Japan



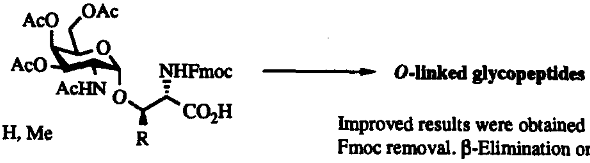
R = Me or Ph.
R_1 = Me, R_2 = H or R_1 = H, R_2 = Me

70~95% yield. *syn* : *anti* = 45~290 : 1

Tetrahedron Lett. **1993**, *34*, 6135

PIPERIDINE IS PREFERABLE TO MORPHOLINE FOR FMOC CLEAVAGE IN SOLID PHASE SYNTHESIS OF *O*-LINKED GLYCOPEPTIDES

Jan Kihlberg* and Tatjana Vuljanic. Organic Chemistry 2, Chemical Center, The Lund Institute of Technology, P.O. Box 124, S-221 00 Lund, Sweden



R = H, Me

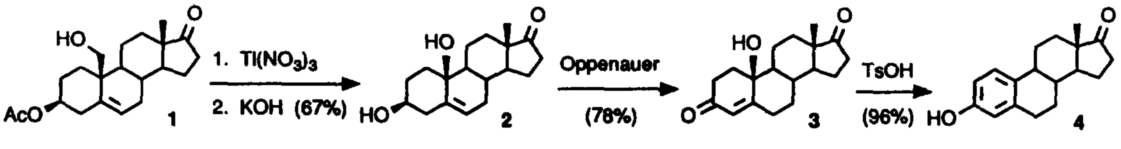
Improved results were obtained when piperidine was used instead of morpholine for Fmoc removal. β-Elimination or racemization were not observed with piperidine.

Tetrahedron Lett. **1993**, *34*, 6139

SYNTHESIS OF ESTRONE VIA A THALLIUM(III)-MEDIATED FRAGMENTATION OF A 19-HYDROXY-ANDROST-5-ENE PRECURSOR

P. Kočovský * and R. S. Baines
Department of Chemistry, University of Leicester, Leicester LE1 7RH, U.K.

Estrone (4) has been synthesized from 1 in four steps. A key feature of the strategy is a stereoelectronically controlled, Tl(III)-mediated degradation (1 → 2). Oppenauer oxidation of 2 then gave 3, which on acid treatment produced 4.

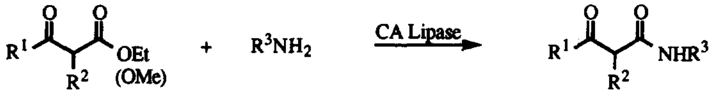


Tetrahedron Lett. *1993*, **34**, 6141

CHEMOENZYMATIC AMINOLYSIS AND AMMONOLYSIS OF β-KETOESTERS

María Jesús García, Francisca Rebolledo and Vicente Gotor*
Departamento de Química Orgánica e Inorgánica. Universidad de Oviedo. 33071 Oviedo. Spain.

β-Ketoamides are obtained in high yields by *Candida antarctica* lipase catalyzed aminolysis and ammonolysis of β-ketoesters.

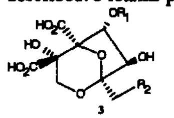


Tetrahedron Lett. *1993*, **34**, 6143

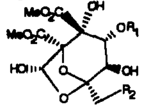
The Squalestatins: C-3 Decarboxylation Studies and Rearrangement to the 6,8-Dioxabicyclo[3.2.1]octane Ring System.

Chuen Chan,* Graham GA Inglis, Panayiotis A Procopiou, Barry C Ross, Anton RP Srikantha, Nigel S Watson, Department of Medicinal Chemistry, Glaxo Group Research Ltd., Greenford Road, Greenford, Middlesex UB6 0HE, United Kingdom

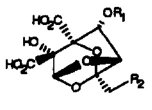
Syntheses of 3-decarboxy squalestatins 3 and 4, 6,8-dioxabicyclo[3.2.1]octane ring product 10 and the tricyclic ether 11 are described. 3 retains potent squalene synthase inhibitory activity.



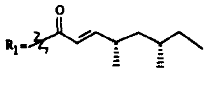
3
4 (R_1 = H)

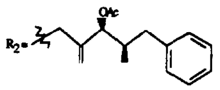


10



11



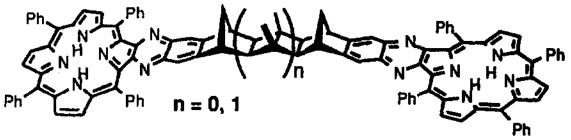


Tetrahedron Lett. *1993*, **34**, 6147

Synthesis of Totally Rigid Covalently Linked Bis-Porphyrin Systems for Studying Long-Range Electron Transfer and Energy Transfer Processes

Errol J. Atkinson, Anna M. Oliver, and Michael N. Paddon-Row*
School of Chemistry, University of New South Wales, PO Box 1, Kensington, NSW, 2033, Australia

Some bis-porphyrin systems have been synthesized from the reaction of *o*-phenylenediamine units, fused to polynorbornyl bridges, with 17,18-dioxo-5,10,15,20-tetraphenylchlorin.



Tetrahedron Lett. *1993*, **34**, 6151

Diarylmethylenecyclopropabenzenes in Cycloaddition

B. Halton,[A] A.J. Kay,[A] A.T. McNichols,[B] P.J. Stang,[B] Y. Apeloig,[C] A.H. Maulitz,[C] R. Boese,[D] and T. Haumann,[D] Departments of Chemistry: [A]Victoria University, Wellington, New Zealand; [B]University of Utah, Salt Lake City, USA; [C]Technion-Israel Institute of Technology, Haifa, Israel; [D]Institut für Inorganische Chemie, der Universität-GH Essen, Germany.

Diarylmethylenecyclopropabenzenes react in [2+4] cycloaddition at the 'cyclopropene' bridge bond rather than at the exocyclic olefin. The results are in accord with computational data.