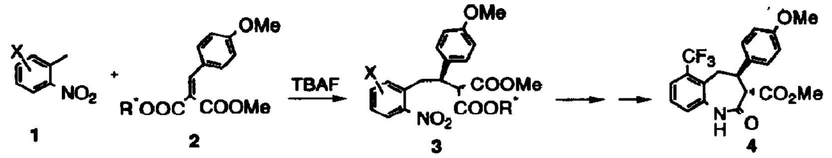
GRAPHICAL ABSTRACTS

Tetrahedron Letters, **1994**, *35*, 6591

FLUORIDE-CATALYZED MICHAEL ADDITION OF NITROTOLUENES TO ACTIVATED α,β-UNSATURATED ESTERS

Wen-Sen Li, John Thottathil, and Michael Murphy, Bristol-Myers Squibb Pharmaceutical Research Institute, New Brunswick, NJ 08903

Michael addition of nitrotoluenes to chiral esters mediated by tetrabutylammonium fluoride gives chiral adducts.

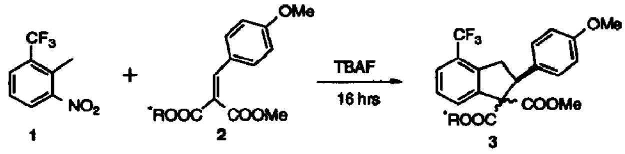


Tetrahedron Letters, **1994**, *35*, 6595

FLUORIDE-CATALYZED INTRAMOLECULAR DENITROCYCLIZATION OF NITROTOLUENES TO INDANES

Wen-Sen Li, and John Thottathil, Bristol-Myers Squibb Pharmaceutical Research Institute, New Brunswick, NJ 08903

Michael addition of nitrotoluenes to esters followed by denitrocyclization mediated by tetrabutylammonium fluoride gives indanes.

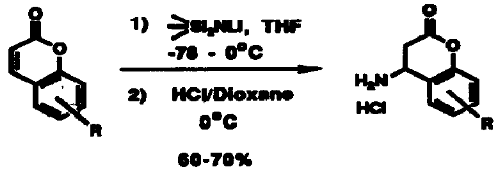


Tetrahedron Letters, **1994**, *35*, 6599

Synthesis of Novel β-Amino Acid Precursors : β-Amino-Hydrocoumarins as Unusual Aspartic Acid Mimetics used in Fibrinogen Receptor Antagonists

Joseph G. Rico*
Monsanto Co. Monsanto Corporate Research, 700 Chesterfield Village Parkway, Chesterfield, MO 63198

An efficient synthesis of β-amino-hydrocoumarins via a Michael addition between readily available coumarins and lithium-bis(trimethylsilyl)amide at low temperature is presented.

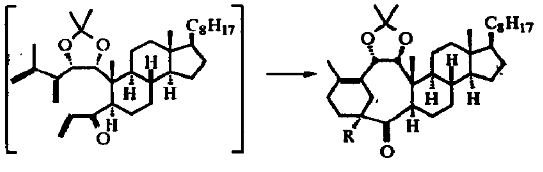


Tetrahedron Letters, **1994**, *35*, 6603

Studies in The Synthesis of a Baccatin III-Steroid Hybrid: A Remarkably Rapid Intramolecular Diels Alder Reaction

Cheryl A. Alaimo*, Craig A. Coburn and Samuel J. Danishefsky, Laboratory of Bio-organic Chemistry, Sloan-Kettering Institute for Cancer Research, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, NY 10021

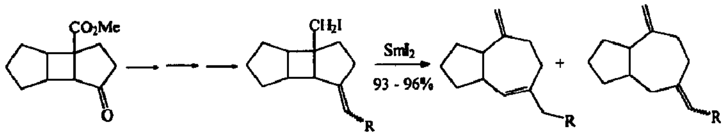
A face selective intramolecular Diels-Alder reaction generates a 1-*epi*-baccatin III-steroid hybrid.



Tetrahedron Letters, **1994**, *35*, 6607

FREE RADICAL FRAGMENTATION OF PHOTOADDUCT DERIVATIVES LEADING TO ALLYLIC SYSTEMS. REGIOSELECTIVITY OF REDUCTION WITH TIN HYDRIDES AND SAMARIUM (II) IODIDE

Gordon L. Lange* and Christine Gottardo, Guelph-Waterloo Centre for Graduate Work in Chemistry, Department of Chemistry and Biochemistry, University of Guelph, Guelph, Ontario, N1G 2W1, Canada.

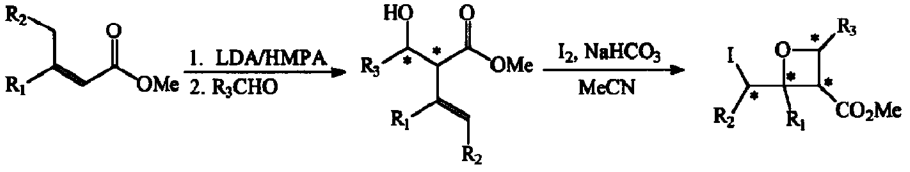


R = H, Me, CO_2Me, CO_2tBu

Tetrahedron Letters, **1994**, *35*, 6611

Stereoselective Synthesis of Substituted Oxetanes

Paul Galatsis* and Daniel J. Parks
Department of Chemistry and Biochemistry, University of Guelph, Guelph, Ontario, Canada N1G 2W1

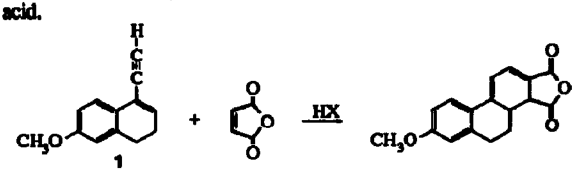


Tetrahedron Letters, **1994**, *35*, 6615

AN ADDITION-CYCLIZATION-ELIMINATION MECHANISM FOR DEHYDRO DIELS-ALDER REACTIONS

Bernard Miller* and Dumitru Ionescu, Department of Chemistry, University of Massachusetts, Amherst, MA 01003 USA

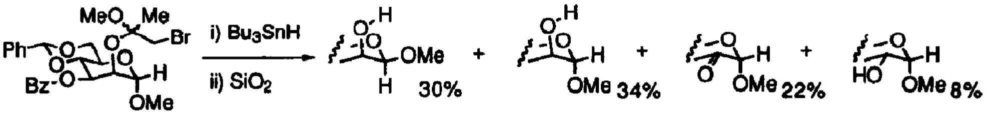
Vinylacetylene 1 undergoes reactions with dienophiles by a mechanism involving initial addition of acids to the triple bond, cycloaddition, and elimination of acid.



Tetrahedron Letters, **1994**, *35*, 6619

Intramolecular Hydrogen Atom Abstraction in Carbohydrates and Nucleosides: Inversion of an α- to β-Mannopyranoside and Generation of Thymidine C-4' Radicals

J. Brunckova, D. Crich* and Q. Yao, Dept. of Chemistry, Univ. Illinois at Chicago, 845 W. Taylor St., Chicago, Il 60607-7061.



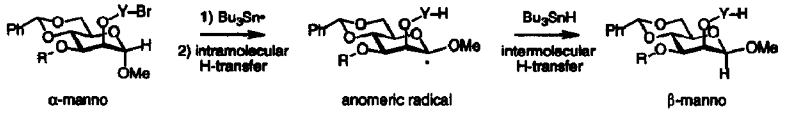
The conversion of an α- to β-mannopyranoside, by intramolecular H-abstraction and stannane trapping, is reported

Tetrahedron Letters, **1994**, *35*, 6623

Synthesis of β-Mannopyranosides from α-Epimers by Radical Inversion. 1,6-Hydrogen Transfer Reactions of 2-*O*-(2-Bromoaryl)dimethylsilyl-α-methyl-D-mannopyranosides

Naoki Yamazaki, Eugen Eichenberger, and Dennis P. Curran*
Department of Chemistry, University of Pittsburgh, Pittsburgh, PA 15260, USA

*Intramolecular hydrogen transfer reactions of 3-O-acyl-α-methyl-*D*-mannopyranosides occur in a 1,6-fashion to give inverted β-mannopyranosides.*

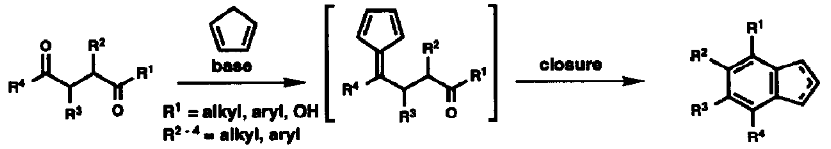


Tetrahedron Letters, **1994**, *35*, 6627

Indenes *via* Fulvene Intermediates

Jotham W. Coe,*† Michael G. Vetelino† and Daniel S. Kemp‡
†Central Research Division, Pfizer Inc., Groton, CT 06340 and
‡Department of Chemistry, Massachusetts Institute of Technology, Cambridge, MA 02138

Abstract: Substituted indenes are prepared from 1,4-dicarbonyl compounds by treatment with base and cyclopentadiene.

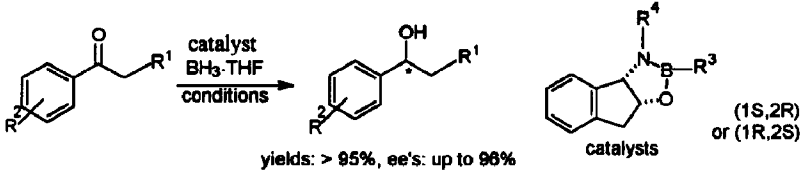


Tetrahedron Letters, **1994**, *35*, 6631

cis-1-Amino-2-indanol in Asymmetric Synthesis. Part I. A Practical Catalyst System for the Enantioselective Borane Reduction of Aromatic Ketones

Yaping Hong, Yun Gao,* Xiaoyi Nie and Charles M. Zepp
Sepracor Inc., 33 Locke Drive, Marlborough, MA 01752

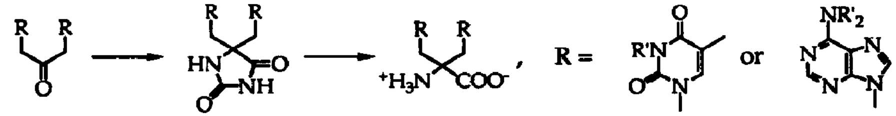
A new class of oxazaborolidine catalysts has been prepared from optically pure cis-1-amino-2-indanols which are available in large quantities. The enantioselective borane reduction of aromatic ketones using these catalysts has been studied



Tetrahedron Letters, **1994**, *35*, 6635

Synthesis of α,α-Dialkylated Amino Acids with Adenine or Thymine Residues. A New Mild and Facile Hydrolysis of Hydantoins.

Stefan Kubik, Robert S. Meissner, Julius Rebek Jr.*,
Massachusetts Institute of Technology, Department of Chemistry, Cambridge MA 02139, U.S.A.



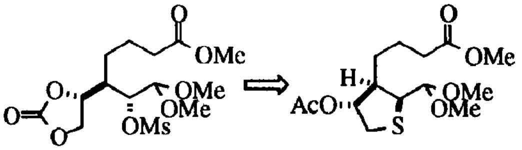
The synthesis of amino acids which contain two adenine or thymine residues in their side chains is presented. In this context, a mild method for the cleavage of hydantoins is introduced.

Tetrahedron Letters, **1994**, *35*, 6639

SYNTHESIS OF TETRAHYDROTHIOPHENES VIA NUCLEOPHILIC ADDITION OF HARPP'S REAGENT TO CYCLIC CARBONATES: APPLICATION TOWARD THE SYNTHESIS OF BREYNOLIDE

Russell J. Linderman*, Neil S. Cutshall, and Brian T. Becicka, Department of Chemistry, North Carolina State University, Raleigh, NC 27695-8204

A method for the conversion of a triol to a tetrahydrothiophene is described.

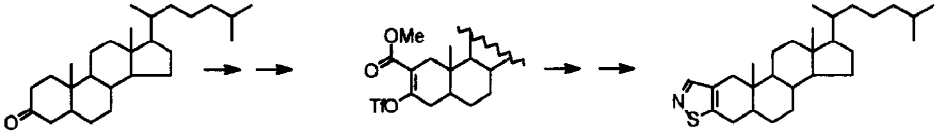


Tetrahedron Letters, **1994**, *35*, 6643

The First Synthesis of an A-Ring Fused Steroidal Isothiazole

Sergio Giacopello, Mónica E. Deluca, and Alicia M. Seldes*.
Depto. de Química Orgánica, Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires, (1428) Buenos Aires, Argentina.

The first synthesis of a steroidal [2,3-d] isothiazole is described. A vinyl triflate was prepared as a key intermediate for the regiospecific introduction of the C2-C3 unsaturation and C-S bond formation.

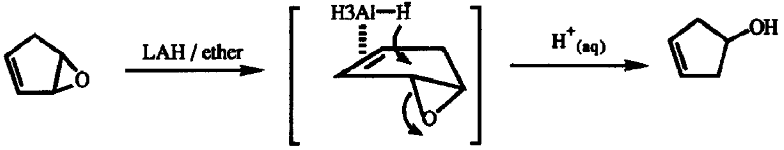


Tetrahedron Letters, **1994**, *35*, 6647

A Study of the Aluminum Hydride Reduction of Unsaturated Cyclic Epoxides

Eamonn F. Healy* , J. D. Lewis & Amy B. Minniear, Dept. of Chemistry, St. Edward's University, 3001 Sth. Congress Ave., Austin, TX 78704

A novel mechanism is proposed for the LAH reduction of 3,4-epoxycyclopentene to 3-cyclopentenol.

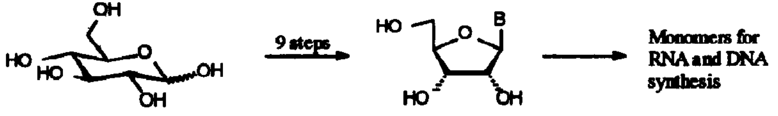


Tetrahedron Letters, **1994**, *35*, 6649

Chemical Synthesis of ^{13}C-labelled Monomers for the Solid-Phase and Template Controlled Enzymatic Synthesis of DNA and RNA Oligomers.

Quant, S.; Wechselberger, R.W.; Wolter, M.A.; Wörner, K.-H-; Schell, P.; Engels, J.W.; Griesinger, C.; Schwalbe, H.*
Inst. f. Org. Chemie, Universität Frankfurt/M., D-60439 Frankfurt/M., Germany.

^{13}C-labelled RNA and DNA monomers are prepared from uniformly labelled $^{13}C_6$-glucose.

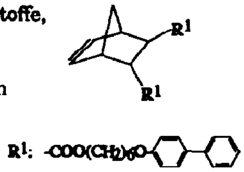


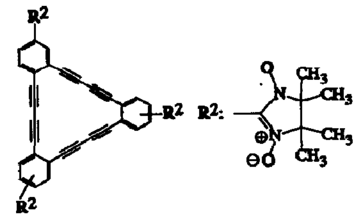
Tetrahedron Letters, **1994**, *35*, 6653

Electrospray Mass Spectrometry using Potassium Iodide in Aprotic Organic Solvents for the Ion Formation by Cation Attachment

Robert Saf, Christian Mirtl, Klaus Hummel*
Institut für Chemische Technologie organischer Stoffe,
Technische Universität Graz, Stremayrgasse 16,
A-8010 Graz (Austria)

In ESI-MS organic compounds can be ionized with potassium ions using KI in DMF-THF. Examples:





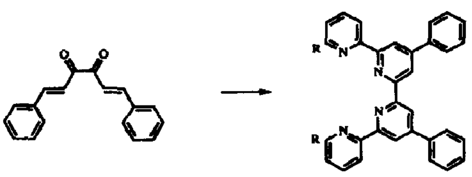
Tetrahedron Letters, **1994**, *35*, 6657

CINNAMIL - AN OLIGOPYRIDINE PRECURSOR

Edwin C. Constable[1*], Michael J. Hannon[2], and Diane R. Smith[1]

[1] Institut für Anorganische Chemie, Universität Basel, Spitalstrasse 51, CH-4056, Basel Switzerland
[2] University Chemical Laboratory, Lensfield Road, Cambridge, UK.

A new methodology has been employed to synthesize a quaterpyridine, a sexipyridine and a quaterpyridine analogue in which the central 2,2'-bipyridine unit is derived from cinnamil.

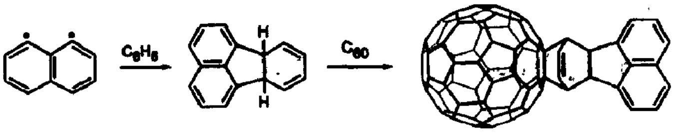


Tetrahedron Letters, **1994**, *35*, 6661

Cycloaddition of 1,8-Dehydronaphthalene to [60]Fullerene in Benzene Solution.
A New Functionalization of C_{60} by in situ Generated 6b,10a-Dihydrofluoranthene

Johannes Averdung and Jochen Mattay*, Organisch-Chemisches Institut der Universität Münster, Orléansring 23, D - 48149 Münster, Germany

6b, 10a-Dihydrofluoranthene which is formed in situ from 1,8-dehydronaphthalene and benzene is added to [60]fullerene under formation of a new stable Diels-Alder adduct.

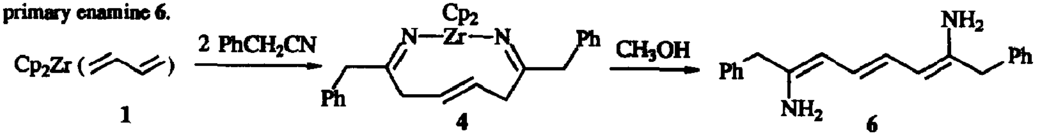


Tetrahedron Letters, **1994**, *35*, 6665

SYNTHESIS OF STABLE PRIMARY ENAMINES FROM (BUTADIENE)ZIRCONOCENE AND BENZYLIC NITRILES.

Gerhard Erker*, Dorothee Kowalski, and Ralf Noe, Organisch-Chemisches Institut der Universität Münster, Corrensstraße 40, D-48149 Münster, Germany. Carl Krüger and Matthias Nolte, Max-Planck-Institut für Kohlenforschung, Kaiser-Wilhelm-Platz 1, D-45470 Mülheim a. d. Ruhr, Germany

The template coupling of (butadiene)zirconocene with benzyl cyanide followed by controlled hydrolysis yields the stable conjugated primary enamine **6**.

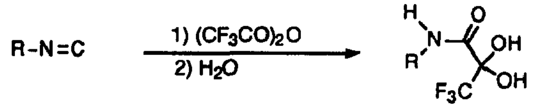


Tetrahedron Letters, **1994**, *35*, 6669

TRIFLUOROPYRUVAMIDES FROM ISOCYANIDES AND TRIFLUOROACETIC ANHYDRIDE

Laurent El Kaim, Laboratoire Réacteurs et Processus, ENSTA, 32 bd Victor, 75015 Paris.

Addition of trifluoroacetic anhydride to isocyanides proceeds smoothly to give after treatment trifluoropyruvamide derivatives in high yield.



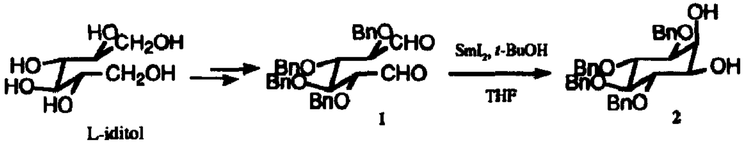
R = tBu , Cyclohexyl, Tolyl...

Tetrahedron Letters, **1994**, *35*, 6671

SAMARIUM DIIODIDE-MEDIATED SYNTHESIS OF D-3,4,5,6-TETRA-*O*-BENZYL-*MYO*-INOSITOL

J. P. Guidot[(a)], T. Le Gall[(a)], C. Mioskowski[(a,b)]
[(a)]CEA, CE-Saclay, Service des Molécules Marquées, Bât 547, F-91191 Gif-sur-Yvette, France
(b) Univ. Louis Pasteur, Fac. Pharmacie, F-67401 Illkirch (France)

The synthesis of D-3,4,5,6-tetra-*O*-benzyl-*myo*-inositol (2) from L-iditol is described,*via* the reductive coupling of dialdehyde 1 mediated by samarium diiodide.

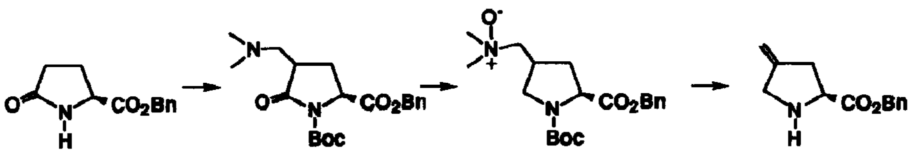


L-iditol 1 2

Tetrahedron Letters, **1994**, *35*, 6673

A Short and Efficient Synthesis of (*S*)-4-Methylene Proline Benzyl Ester from (*S*)-Pyroglutamic Acid

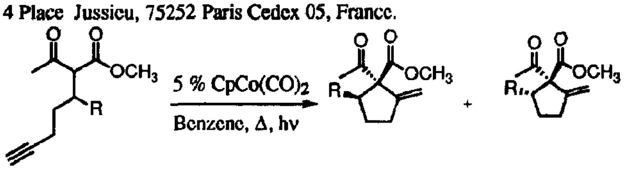
Sharad Kumar Panday, Dominique Griffart-Brunet and Nicole Langlois*
Institut de Chimie des Substances Naturelles, C.N.R.S., 91198 Gif-sur-Yvette Cedex , France



Tetrahedron Letters, **1994**, *35*, 6677

STUDIES ON DIASTEREOSELECTIVITY OF THE COBALT(I) CATALYZED CYCLOISOMERIZATION OF SUBSTITUTED ε-ACETYLENIC β-KETOESTER

Paul Cruciani, Corinne Aubert and Max Malacria*
Université P. et M. Curie, Laboratoire de Chimie Organique de Synthèse, associé au CNRS, B.229, 4 Place Jussieu, 75252 Paris Cedex 05, France.



R = Ph, Me, *n*-Bu, *i*-Pr, CH_2SiMe_3, *t*-Bu

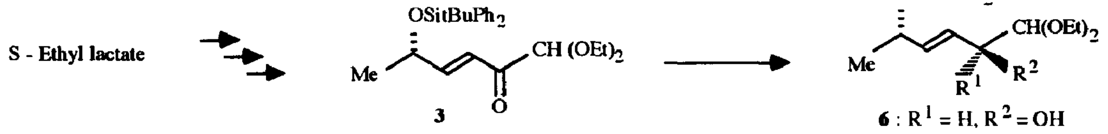
yield = 69 - 74 % ; de = 12 - 92 %

Tetrahedron Letters, **1994**, *35*, 6681

(5S)-1,1-DIETHOXY-5- *t* -BUTYLDIPHENYLSILYLOXY-HEX-3-EN-2-ONE : A NEW FUNCTIONALIZED VERSATILE CHIRAL BUILDING BLOCK

Hervé Dumartin, Yves Le Floc'h, * René Grée
Laboratoire de Synthèses et Activations de Biomolécules, associé au CNRS, ENSCR, Avenue du Général Leclerc, 35700 Rennes, France

The title enone 3 is easily prepared from protected lactaldehyde.
Highly diastereoselective reduction of 3 are obtained only with CBS reagents.



3

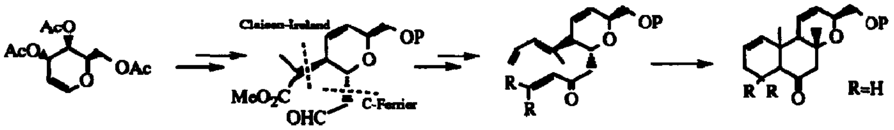
6 : R^1 = H, R^2 = OH
7 : R^1 = OH, R^2 = H

Tetrahedron Letters, **1994**, *35*, 6685

A Synthetic Approach to the Tricyclic System of Forskolin from D-Galactose.

Issam Hanna,* Jean-Yves Lallemand and Philippe Wlodyka
Laboratoire de Synthèse Organique de l'Ecole Polytechnique, F-91128 Palaiseau, France.

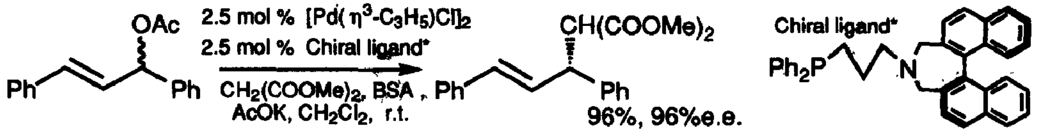
The synthesis of the tricyclic system of forskolin by intramolecular Diels-Alder reaction is described, starting from tri-O-acetyl-D-galactal.



Tetrahedron Letters, **1994**, *35*, 6689

Enantioselective Palladium Catalyzed Allylic Alkylation with Phosphorus Containing C_2-symmetric Chiral Amine Ligands

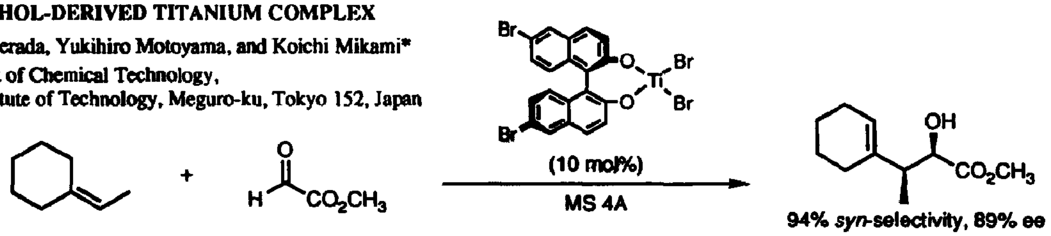
Hideki Kubota[a] and Kenji Koga[b]*
[a]Tokyo R&D Center, Daiichi Pharmaceutical Co., Ltd., Edogawa-ku, Tokyo 134, Japan
[b]Faculty of Pharmaceutical Sciences, University of Tokyo, Hongo, Bunkyo-ku, Tokyo 113, Japan



Tetrahedron Letters, **1994**, *35*, 6693

DIASTEREOSELECTIVE AND ENANTIOSELECTIVE GLYOXYLATE-ENE REACTION CATALYZED BY NEW CLASS OF BINAPHTHOL-DERIVED TITANIUM COMPLEX

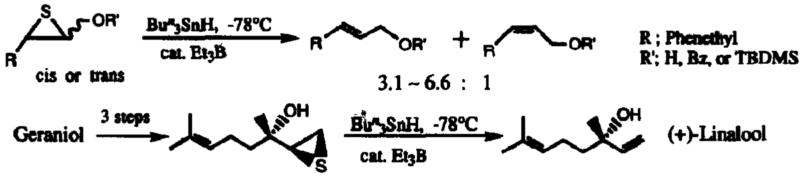
Masahiro Terada, Yukihiro Motoyama, and Koichi Mikami*
Department of Chemical Technology,
Tokyo Institute of Technology, Meguro-ku, Tokyo 152, Japan



Tetrahedron Letters, **1994**, *35*, 6697

An Extremely Mild Desulfurization of Thiiranes; An Efficient Transformation from Geraniol to (+)- and (-)-Linalool

Jun'ichi Uenishi* and Yuhki Kubo
Department of Chemistry, Okayama University of Science, Ridaicho, Okayama, 700 JAPAN



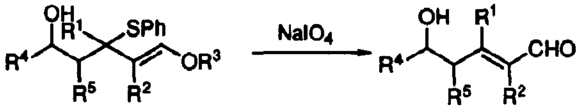
Tiiran was desulfurized by Et_3B catalyzed Bu^n_3SnH reduction at -78°C. Both (+)- and (-)-linalool were derived from geraniol in 4 steps stereospecifically.

Tetrahedron Letters, **1994**, *35*, 6701

Hydroxyl-Directed Stereoselective [2,3] Sigmatropic Rearrangement of γ-Hydroxyalkyl γ-Alkoxyallylic Sulfoxides

Tsuneo Sato and Junzo Otera*
Department of Applied Chemistry, Okayama University of Science, Ridai-cho, Okayama 700, Japan

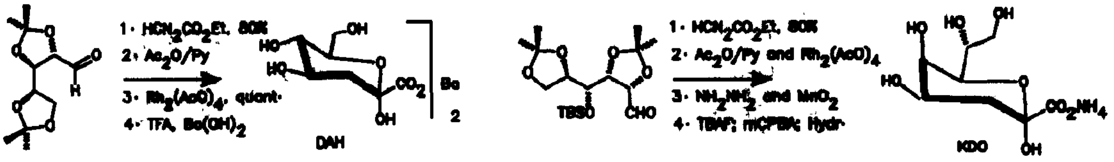
The [2,3] sigmatropic rearrangement of γ-hydroxyalkyl γ-alkoxyallylic sulfoxides occurs in a highly stereoselective manner to give δ-hydroxy-(*E*)-enals.



Tetrahedron Letters, **1994**, *35*, 6705

β-OXY-α-DIAZO CARBONYL COMPOUNDS.III. $Rh_2(AcO)_4$ MEDIATED DECOMPOSITION OF β-ACETOXY-α-DIAZO ESTERS. APPLICATION TO THE SYNTHESIS OF NATURAL 3-DEOXY-2-KETO ALDONIC ACIDS (KDO AND DAH).

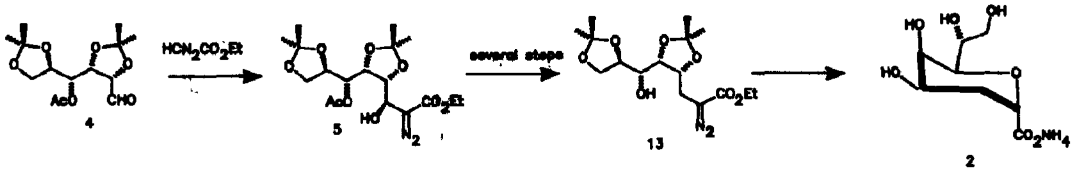
Fidel J. López-Herrera and Francisco Sarabia-García
Departamento de Química Orgánica. Facultad de Ciencias. Universidad de Málaga. 29071 Málaga. Spain.



Tetrahedron Letters, **1994**, *35*, 6709

A NEW SYNTHESIS FOR 2-DEOXY-KDO, A POTENT INHIBITOR OF CMP-KDO SYNTHETASE

Francisco Sarabia-García, F. J. López-Herrera and María S. Pino González
Departamento de Química Orgánica. Facultad de Ciencias. Universidad de Málaga. 29071 Málaga. Spain.

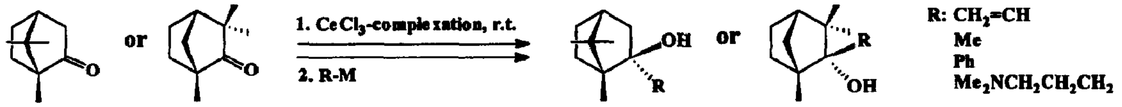


Tetrahedron Letters, **1994**, *35*, 6713

CERIUM(III) CHLORIDE AS CATALYTIC AND STOICHIOMETRIC PROMOTER OF THE QUANTITATIVE ADDITION OF ORGANOMETALLIC REAGENTS TO (+)-CAMPHOR AND (-)-FENCHONE

Vladimir Dimitrov*, Svetoslav Bratovanov, Svetlana Simova and Kalina Kostova, Institute of Organic Chemistry
Bulgarian Academy of Sciences, 1113 Sofia, Bulgaria.

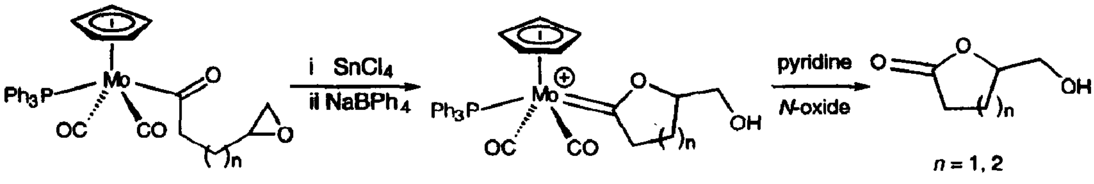
Catalytic and/or stoichiometric amounts of $CeCl_3$ complexed with (+)-camphor and (-)-fenchone at room temperature promote an excellent addition of organometallic reagents.



Tetrahedron Letters, **1994**, *35*, 6717

SYNTHESIS OF HYDROXYMETHYL LACTONES AND SPIROKETALS *VIA* CYCLIZATION OF EPOXY OXOCARBENE COMPLEXES.

Charles M. Marson, Linda Randall, and Mark J. Winter, Department of Chemistry, The University, Sheffield, S3 7HF, U.K.

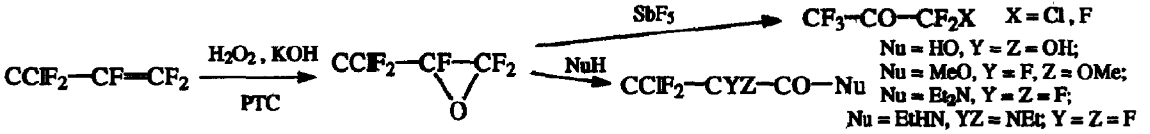


Tetrahedron Letters, **1994**, *35*, 6721

3-CHLOROPENTAFLUOROPROPENE-1,2-OXIDE: PREPARATION AND REACTIONS WITH SOME HETERO-ATOM NUCLEOPHILES AND ANTIMONY PENTAFLUORIDE.

J. Kvíčala* and O. Paleta, Department of Chemistry, University of Chemical Technology, Technická 5, 166 28 Prague 6, Czech Republic

Nucleophilic epoxidation of 3-chloropentafluoro-1-propene lead to 3-chloropentafluoropropene-1,2-oxide, which was reacted with some oxygen and nitrogen nucleophiles and with antimony pentafluoride.

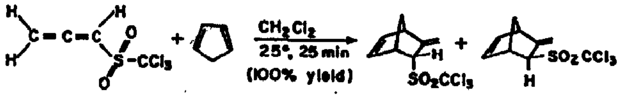


Tetrahedron Letters, **1994**, *35*, 6725

FACILE, REGIO AND STEREOSELECTIVE DIELS-ALDER REACTIONS OF ALLENIC TRICHLOROMETHYL SULFONES AND SULFOXIDES.

S. Braverman* and Z. Lior, Department of Chemistry, Bar-Ilan University, Ramat Gan 52900, Israel

The dienophilic reactivity of allenes is drastically increased by the powerful electron withdrawing trichloromethylsulfonyl or sulfinyl substituents. The (4+2) -cycloadditions proceed smoothly with high regio- and stereoselectivity under mild conditions.



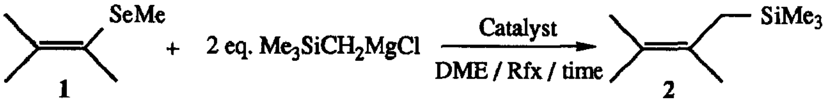
4a *endo* (90%) 4b *exo* (10%)

Tetrahedron Letters, **1994**, *35*, 6729

NICKEL AND PALLADIUM CATALYSED COUPLING OF VINYL SELENIDES WITH TRIMETHYLSILYLMETHYLMAGNESIUM CHLORIDE : A NEW SYNTHESIS OF ALLYL SILANES

L. Hevesi *, B. Hermans, C. Allard
Département de Chimie, FUNDP, rue de Bruxelles 61, B-5000, Namur (Belgium)

Abstract: A new access to allyl silanes by the Ni or Pd catalysed cross-coupling reactions of vinyl selenides and trimethylsilylmethylmagnesium chloride (DME / Rfx / 65-83 % yield) is reported.



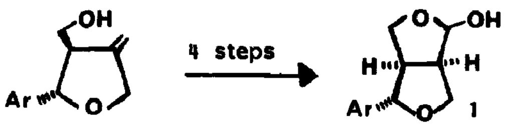
Tetrahedron Letters, **1994**, *35*, 6731

STEREOSELECTIVE TOTAL SYNTHESIS OF (±)-SAMIN, THE GENERAL FUROFURAN LIGNAN PRECURSOR

Gourhari Maiti, Sankar Adhikari and Subhas Chandra Roy*
Department of Organic Chemistry, Indian Association for the Cultivation of Science, Jadavpur, Calcutta - 700 032, India.

Stereoselective synthesis of the general furofuran lignan precursor (±)-Samin 1 has been achieved in good overall yield.

Ar = 3,4-methylenedioxyphenyl

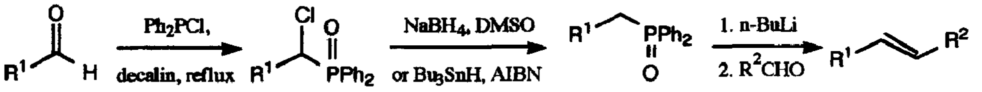


Tetrahedron Letters, **1994**, *35*, 6733

EFFICIENT SYNTHESIS OF BENZYLPHOSPHINE OXIDES AND *E*-STILBENES

K. M. Brown, N., J. Lawrence,* J. Liddle, F. Muhammad
Dept. of Chemistry, UMIST, PO Box 88; Manchester, M60 1QD, UK.
and D. A. Jackson, ZENECA F.C.M.O., North of England Works, PO Box A38, Leeds Road, Huddersfield, HD2 1FF, UK.

Benzylphosphine oxides are obtained from reduction of (α-chlorobenzyl)phosphine oxides. The Horner Wittig reaction of the benzylphosphine oxides gives exclusively *trans* alkenes.

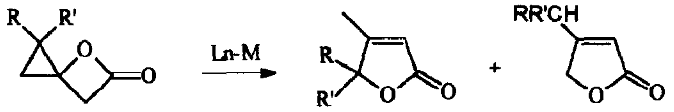


Tetrahedron Letters, **1994**, *35*, 6737

METAL CATALYSED REARRANGEMENT OF CYCLOPROPANESPIRO-β-LACTONES TO 2-FURANONES.

Niall W. A. Geraghty and Paul A. Murphy, Chemistry Department, University College, Galway, Ireland.

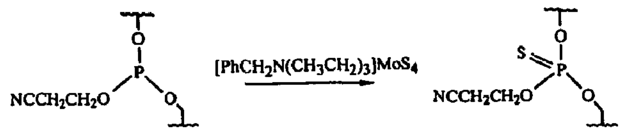
The rearrangement of cyclopropanespiro-β-lactones is shown to be a general reaction involving metal catalysis; a mechanism is proposed which accounts for the regiochemistry of the reaction.



Tetrahedron Letters, **1994**, *35*, 6741

SOLID PHASE SYNTHESIS OF PHOSPHOROTHIOATE OLIGONUCLEOTIDES USING BENZYLTRIETHYLAMMONIUM TETRATHIOMOLYBDATE AS A RAPID SULFUR TRANSER REAGENT.

M. Vaman Rao* and K. Macfarlane
Cruachem Limited, Todd Campus, West of Scotland Science Park, Acre Road, Glasgow G20 0UA, U.K.

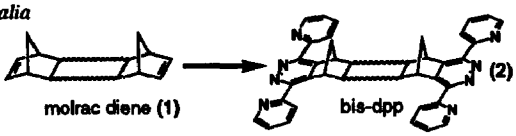


Tetrahedron Letters, **1994**, *35*, 6745

THE PREPARATION OF SPACE-SEPARATED CHELATING AGENTS BASED ON THE 3,6-DIPYRIDYL PYRIDAZINE LIGAND

Ronald N. Warrener,* Gordon M. Elsey and Iyer V. Sankar, *Centre for Molecular Architecture, Central Queensland University, Rockhampton, Qld, 4702, Australia.* Douglas N. Butler and Peter Pekos, *York University, North York, Ontario, Canada.*
Colin H.L.Kennard, *University of Queensland, St Lucia, Qld, 4072, Australia*

Bis 3,6-di(2'-pyridyl)pyridazines (2) of varied geometry and separations of between 6-21Å have been prepared from the corresponding molrac diene (1) by treatment with 3,6-di(2'-pyridyl)-s-tetrazine/DDQ.

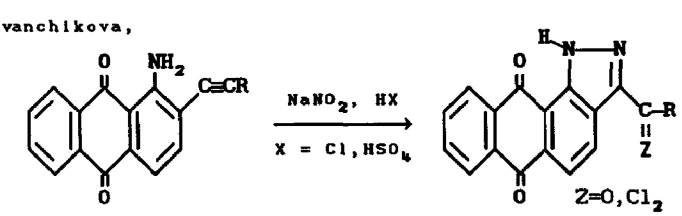


Tetrahedron Letters, **1994**, *35*, 6749

AN UNUSUAL DIRECTION OF THE RICHTER SYNTHESIS. 1*H*-NAPHTHO[2,3-*g*]INDAZOLE-6,11-DIONES.

Mark S. Shvartsberg*, Irena D. Ivanchikova, Lidiya G. Fedenok

Institute of Chemical Kinetics and Combustion, Novosibirsk 630090, Russia

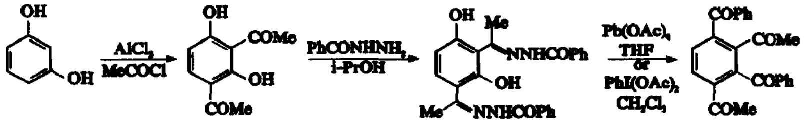


Tetrahedron Letters, **1994**, *35*, 6753

A NOVEL AND FACILE SYNTHESIS OF TETRAACYLBENZENES

Antigoni Kotali, Laboratory of Organic Chemistry, College of Engineering, University of Thessaloniki, Thessaloniki GR-54006, Greece

Oxidation of *N*-carbonyl hydrazones of o-hydroxy arylketones with either lead tetraacetate or [(diacetoxy)iodo]benzene lead to the good yield formation of tetraacylbenzenes *via* an interesting rearrangement.

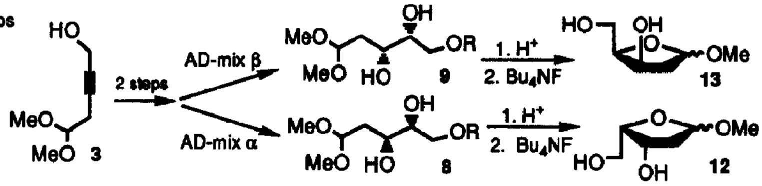


Tetrahedron Letters, **1994**, *35*, 6755

Asymmetric Synthesis of Carbohydrates: Synthesis of 2-deoxy-D- and 2-deoxy-L-xylofuranosides from a Simple Achiral Precursor.

Michael E. Jung[a*] and John M. Gardiner[b*]
[a]Department of Chemistry & Biochemistry, University of California at Los Angeles, Los Angeles, California 90024-1569, USA
[b]Department of Chemistry, University of Manchester Institute of Science and Technology, PO Box 88, Manchester M60 1QD, UK

The acetylenic alcohol, 3, prepared in two steps from propargyl bromide, is converted into methyl-2-deoxy-D-xylo-furanoside,13, and to it's unnatural enantiomer, 12, in 5 steps and 50% overall yield, utilizing asymmetric dihydroxylation. ees. 84-91%
[R = t-BuPh$_2$Si]



Tetrahedron Letters, **1994**, *35*, 6759

Single and Double Reductive Cleavage of C-O Bonds in Aromatic Acetals and Ketals: Generation of Benzylic Mono- and Dicarbanions

Ugo Azzena,* Giovanni Melloni, Luisa Pisano, and Barbara Sechi
Dipartimento di Chimica, Università di Sassari, via vienna 2, I-07100 Sassari, ITALY

Reductive cleavage of compounds 1 followed by electrophilic quenching afforded either compounds 2 or 3