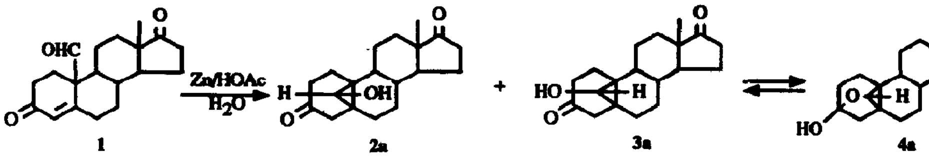
GRAPHICAL ABSTRACTS

Tetrahedron Letters, **1994**, *35*, 5755

SYNTHESIS AND ISOMERIZATION OF 19-HYDROXY-5β,19-CYCLOSTEROIDS.

John F. Templeton,[a,*] Weiyang Lin,[a] Yangzhi Ling[a] and Kirk Marat,[b]. [a]Faculty of Pharmacy, [b]Department of Chemistry, University of Manitoba, Winnipeg, Manitoba, Canada R3T 3M2

Reductive cyclization of androst-4-ene-3,17-dione-19-al leads to 19(R/S)-hydroxy-5β,19-cycloandrosta-3,17-dione.



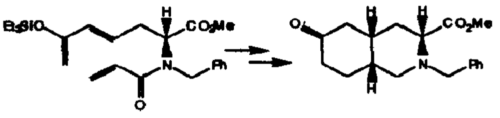
1 2a 3a 4a

Tetrahedron Letters, **1994**, *35*, 5759

Intramolecular Diels-Alder Route To 6-Oxodecahydroisoquinoline-3-Carboxylates: Intermediates For The Synthesis Of Conformationally Constrained Excitatory Amino Acid Antagonists

Paul L. Ornstein*, Anita Melikian, and Michael J. Martinelli, Lilly Research Laboratories, A Division of Eli Lilly and Company, Lilly Corporate Center, Indianapolis, Indiana, 46285

An intramolecular Diels-Alder reaction is utilized as a key bond forming step in the stereoselective synthesis of 6-oxohydroisoquinoline-3-carboxylates. Asymmetry is ultimately derived from commercially available methyl *N*-BOC-L-aspartate.

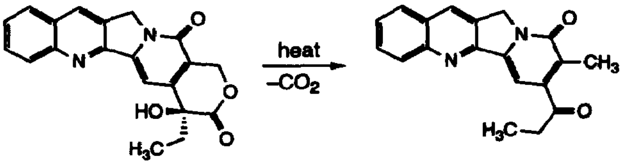


Tetrahedron Letters, **1994**, *35*, 5763

PREPARATION OF MAPPICINE KETONES FROM CAMPTOTHECINS: CHEMISTRY OF THE CAMPTOTHECIN E RING

J. M. D. Fortunak, A. R. Mastrocola, M. Mellinger, J. L. Wood*
Synthetic Chemistry Department, SmithKline Beecham Pharmaceuticals, P.O. Box 1539, King of Prussia, PA 19406-0939 USA

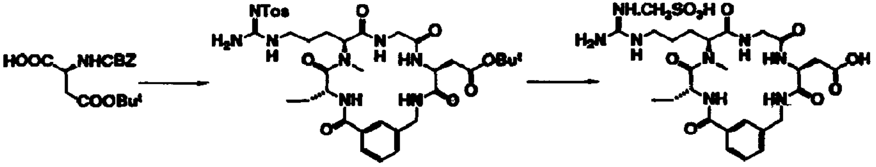
Camptothecin and its analogues are thermolyzed at 150-200 °C to yield mappicine ketones by loss of carbon dioxide from the α-hydroxylactone ring.



Tetrahedron Letters, **1994**, *35*, 5765

Facile Detosylation of Cyclic Peptides. An Effective Synthesis of Platelet Glycoprotein IIb/IIIa Inhibitors

Lin-hua Zhang*, Philip Ma, Chemical Process R&D, PRF(S1), DuPont Merck Pharmaceutical Company, Deepwater, NJ 08023-0999, USA



A general and effective synthesis of cyclopentapeptides containing Arg-Gly-Asp sequence is reported.

Tetrahedron Letters, **1994**, *35*, 5769

AN EFFICIENT TOTAL SYNTHESIS OF NEOPATULIN

John Boukouvalas* and François Maltais
Département de Chimie, Université Laval, Québec (Québec), Canada G1K 7P4

Neopatulin has been synthesized by a short, highly efficient route from readily available reagents.

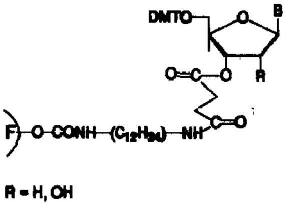
Neopatulin

Tetrahedron Letters, **1994**, *35*, 5771

New and Efficient Solid Support for the Synthesis of Nucleic Acids

M. P. Reddy*, M. A. Michael, Firdous Farooqui and N. S. Girgis
Advanced Technology Center, Beckman Instruments Inc., 2500 Harbor Blvd., Fullerton, CA 92634.

We have developed a suitably derivatized Fractogel (Toyopearl) as an efficient solid support for the synthesis of oligodeoxyribonucleotides, oligoribonucleotides and oligonucleoside phosphorothioates.



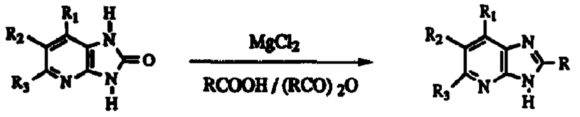
R = H, OH
B = Abz, Cbz, Gibu, T (U)

Tetrahedron Letters, **1994**, *35*, 5775

Magnesium-Assisted Imidazole Formation from Unreactive Ureas.

Chris H. Senanayake,* Laura E. Fredenburgh, Robert A. Reamer, Ji Liu, Robert D. Larsen, Thomas R. Verhoeven and Paul J. Reider. Merck Research Laboratories, Division of Merck & Co., Inc., P.O. Box 2000, Rahway, New Jersey 07065, USA.

Novel and facile synthesis of imidazopyridine derivatives 1 from highly stable ureas 2 is described.



2

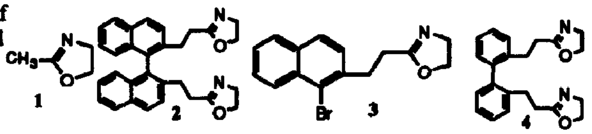
1

Tetrahedron Letters, **1994**, *35*, 5779

FACILE ALKYLATION OF 2-METHYL-2-OXAZOLINE: SYNTHESIS OF NOVEL 2-SUBSTITUTED-2-OXAZOLINES.

Rutger D. Puts and Dotsevi Y. Sogah*
Department of Chemistry, Baker Laboratory, Cornell University, Ithaca NY 14853

The synthesis and mechanism of formation of novel 2-substituted -2-oxazolines such as 2-4 by alkylation of 1 are described.

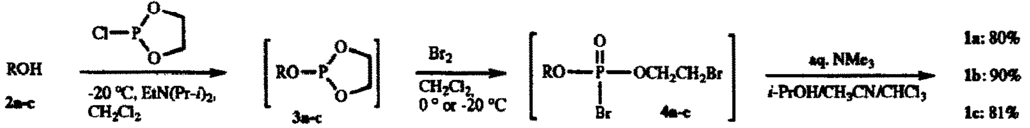


Tetrahedron Letters, **1994**, *35*, 5783

ANTITUMOR PHOSPHOLIPIDS: A ONE-POT INTRODUCTION OF A PHOSPHOCHOLINE MOIETY INTO LIPID HYDROXY ACCEPTORS

Ravi Kumar Erukulla, Hoe-Sup Byun, and Robert Bittman,* Department of Chemistry and Biochemistry, Queens College of The City University of New York, Flushing, New York 11367-1597 U.S.A.

A high-yielding, 3-step, one-pot conversion of lipid hydroxy acceptors **2** into clinically useful alkylphosphocholines **1** is reported. Reaction of **2** with ethylene chlorophosphite gave phosphite **3**, which underwent oxidation and ring opening with bromine in CH_2Cl_2 to give (2-bromoethyl)phosphate ester **4** ; hydrolysis of the P-Br bond and quaternization of **4** with aqueous trimethylamine generated **1**.

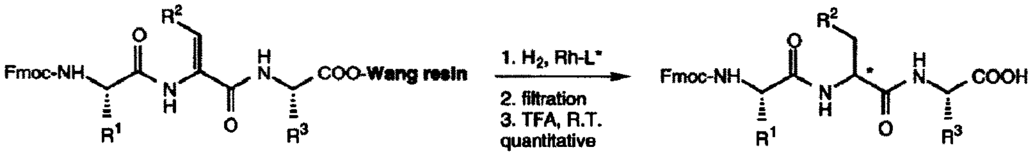


Tetrahedron Letters, **1994**, *35*, 5785

CATALYTIC ASYMMETRIC SYNTHESIS OF PEPTIDES ON POLYMER SUPPORT

Iwao Ojima*, Chung-Ying Tsai, Zhaoda Zhang
Department of Chemistry, State University of New York at Stony Brook, Stony Brook, NY 11794

Efficient catalytic asymmetric hydrogenation of dehydrotripeptides linked to the Wang resin using chiral rhodium catalysts.



Tetrahedron Letters, **1994**, *35*, 5789

SYNTHESIS OF HYDROGENATED FULLERENES BY ZINC/ACID REDUCTION.

Mark S. Meier,* Perry S. Corbin,
Virginia K. Vance, Mark Clayton, Michael Mollman, Department of Chemistry, University of Kentucky, Lexington, KY 40506-0055 USA
Magdalena Poplawska, Faculty of Chemistry, Warsaw Technical University (Politechnika), 00-664 Warszawa, Noakowskiego 3, Poland

Buckminsterfullerene (C_{60}) is reduced by zinc and acid to a mixture of $C_{60}H_2$, $C_{60}H_4$, and other more highly reduced fullerenes.

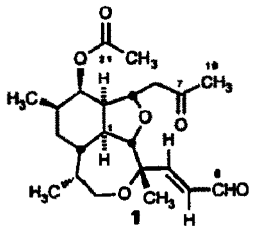
$$C_{60} \xrightarrow[\text{PhH, reflux}]{\text{Zn, H}^+} C_{60}H_2 + C_{60}H_4 + C_{60}H_{6+}$$

Tetrahedron Letters, **1994**, *35*, 5793

THE FIRST *SECO*-ASBESTININ: A NOVEL CLASS OF DITERPENE FROM THE CARIBBEAN GORGONIAN *BRIAREUM ASBESTINUM* (PALLAS).

Abimael D. Rodríguez*, Oscar M. Cóbar and Noralyz Martínez
Department of Chemistry, University of Puerto Rico, P.O. Box 23346
San Juan, Puerto Rico 00931-3346

Compound 1, the first representative of a novel class of ether-cyclized asbestinane diterpenes known as *seco*-asbestinins, was found in the lipid soluble extract of the Caribbean gorgonian *Briareum asbestinum*. The structure of 1 was confirmed by partial synthesis.



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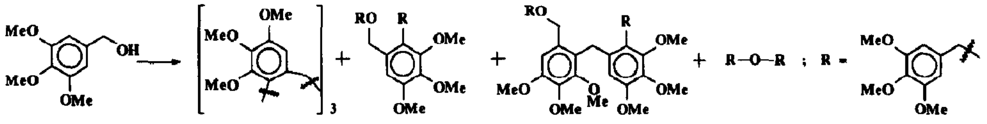
Tetrahedron Letters, **1994**, *35*, 5797

Cyclic and Linear Oligomerization Reaction of 3,4,5-Trimethoxybenzyl Alcohol with a Bentonite-Clay.

Manuel Salmón*, Nieves Zavala, Mariano Martínez,
René Miranda, Raymundo Cruz, Jorge Cárdenas, Rubén Gaviño and Armando Cabrera. Instituto de Química de la Universidad Nacional Autónoma de México, Ciudad Universitaria, Circuito Exterior, Coyoacán 04510 México D.F.

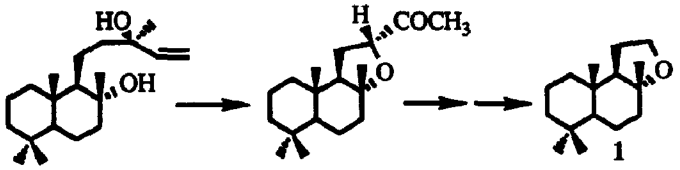
Abstract.- The catalytic induction and structures of cyclic and linear oligomers from 3,4,5-Trimethoxybenzyl alcohol with a bentonite clay as catalyst are discussed.



Tetrahedron Letters, **1994**, *35*, 5801

An Efficient Synthesis of (-)-Dodecahydro-3a,6,6,9a-tetramethylnaphtho[2,1-b]furan from (-)-Sclareol.

Derek H.R.Barton,* Shyamal I.Parekh, Dennis K.Taylor and Chi-lam Tse
Department of Chemistry, Texas A&M University, College Station,TX 77843-3255, USA.



1

The title compound 1 was prepared in 74% overall yield over 3 steps from (-)-Sclareol

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Tetrahedron Letters, **1994**, *35*, 5805

The Fe^{II}-Fe^{IV} and Fe^{III}-Fe^{V} Manifolds in an Expanded World of Gif Chemistry

Christophe Bardin, Derek H. R. Barton,* Bin Hu, Roy Rojas-Wahl and Dennis K. Taylor.
Department of Chemistry, Texas A&M University, College Station, TX 77843-3255, USA

$$Fe^{II} + LiCl + HOOR \quad (R = H, t\text{-Bu}) \xrightarrow{R\text{-}H} R\text{-}Cl$$

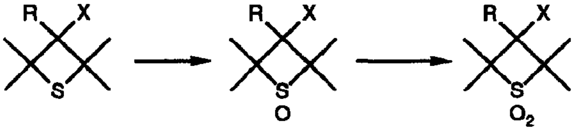
The species responsible for hydrocarbon activation are identified.

Tetrahedron Letters, **1994**, *35*, 5809

Diastereoselective Oxidation of Substituted Thietanes and Stereoselective Oxidation of Their Sulfoxides

Richard S. Glass*, Waheguru Pal Singh, Department of Chemistry, The University of Arizona, Tucson, AZ 85721 and
Bruce A. Hay, Pfizer Central Research, Groton, CT 06340

Trans-3-substituted-thietane-1-oxides are more rapidly oxidized by peracid to sulfones than the corresponding cis-isomer.

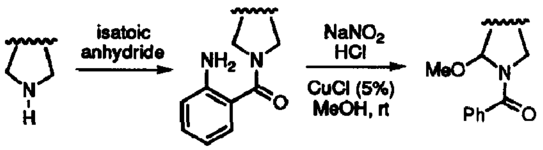


Tetrahedron Letters, **1994**, *35*, 5813

A CONVENIENT SYNTHETIC METHOD FOR AMIDE OXIDATION

Gyoonhee Han, Matthias C. McIntosh, and Steven M. Weinreb*, Department of Chemistry,
The Pennsylvania State University, University Park, PA 16802 USA

Diazotization of *o*-aminobenzamides in methanol in the presence of a catalytic amount of CuCl affords α-methoxybenzamides in good yields.

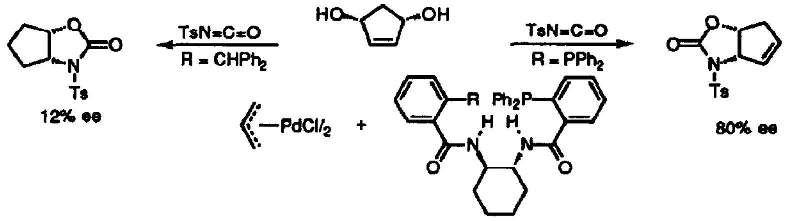


Tetrahedron Letters, **1994**, *35*, 5817

On the Nature of the Asymmetric Induction in a Palladium Catalyzed Allylic Alkylation

Barry M. Trost, Bernhard Breit and Michael G. Organ
Department of Chemistry, Stanford University, Stanford, California 94305-5080

A probe for bidentate coordination in the enantiodiscriminating step even though it involves a 13-membered ring is developed for an allylic alkylation.

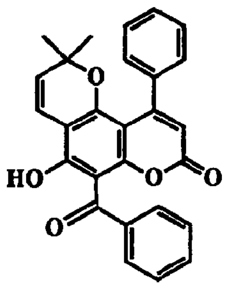


Tetrahedron Letters, **1994**, *35*, 5821

CALANONE, A NOVEL COUMARIN FROM *Calophyllum teysmannii*

Kirk R. Gustafson, Heidi R. Bokesch, Richard W. Fuller,
John H. Cardellina II, Marian R. Kadushin, Djaja D. Soejarto
and Michael R. Boyd; Laboratory of Drug Discovery Research and
Development, Developmental Therapeutics Program, Division of
Cancer Treatment, National Cancer Institute, Bldg. 1052,
Rm. 121, Frederick, MD 21702-1201 USA

During a survey of latex samples of *Calophyllum teysmannii* for anti-HIV coumarins (calanolide A, costatolide), calanone (5), an unprecedented benzoyl substituted coumarin, was isolated and its structure determined by spectroscopic analyses. The known soulattrolide (3), and the related ketone 4 were also isolated. Soulattrolide inhibited the cytopathic effect of *in vitro* HIV-1 infection, while calanone (5) and the ketone 4 were inactive.

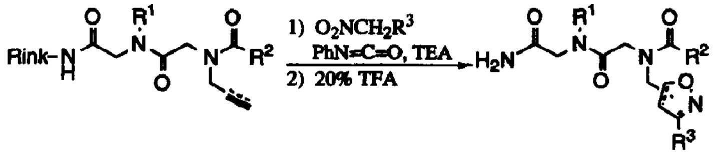


Tetrahedron Letters, **1994**, *35*, 5825

Post-Modification of Peptoid Side Chains: [3+2] Cycloaddition of Nitrile Oxides with Alkenes and Alkynes on the Solid-Phase.

Yazhong Pei* ¥ and Walter H. Moos, Chiron Corporation, 4560 Horton Street, Emeryville, CA 94608

A series of isoxazoles and isoxazolines were synthesized on solid-phase through [3+2] cycloaddition reactions of alkynes and alkenes with highly reactive nitrile oxides.

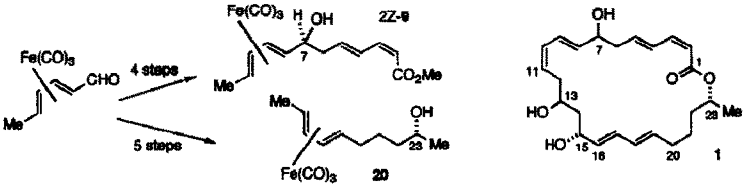


Tetrahedron Letters, **1994**, *35*, 5829

Model Studies toward the Synthesis of Macrolactin A: Organoiron Methodology for Introduction of the C1-C11 and C16-C24 Segments

William A. Donaldson,* Peter T. Bell, Zhi Wang, and Dennis W. Bennett, Department of Chemistry, Marquette University, Milwaukee, WI 53233, and Department of Chemistry, University of Wisconsin-Milwaukee, Milwaukee, WI 53201

Preparation of Fe(CO)3 complexed models for the C1-C11 and the C16-C24 segments (2Z-9 and 20) of macrolactin A (1) has been accomplished from (sorbaldehyde)-Fe(CO)3 in 4 steps and 5 steps respectively.

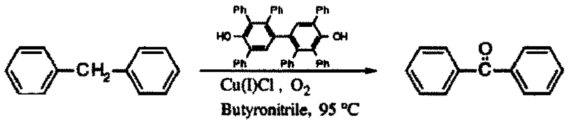


Tetrahedron Letters, **1994**, *35*, 5833

A NEW CATALYTIC OXIDATION OF DIARYLMETHANES MEDIATED BY 2,2',3,3',5,5'-HEXAPHENYL-(1,1'-BIPHENYL)-4,4'-DIOXYL.

Gennaro Barbiero, Whan-Gi Kim, and Allan S. Hay*, Department of Chemistry, McGill University, 801 Sherbrooke St. W., Montréal, Québec, Canada H3A2K6

Diarylmethanes are oxidized in a catalytic oxidation, with oxygen in the presence of a CuCl catalyst in butyronitrile solvent, mediated by 2,2',3,3',5,5'-hexaphenyl-(1,1'-biphenyl)-4,4'-dioxyl generated *in situ* from the biphenol.

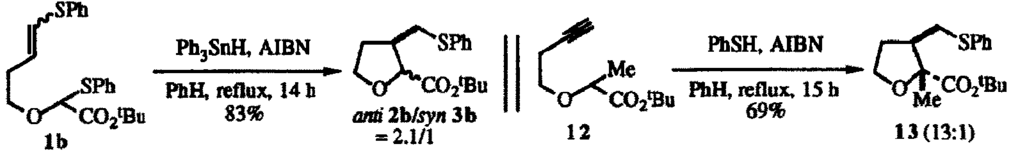


Tetrahedron Letters, **1994**, *35*, 5837

2,3-Disubstituted Tetrahydrofuran Synthesis via Radical and Anionic Cyclization

Steven D. Burke* and Kyung Woon Jung
Department of Chemistry, University of Wisconsin-Madison, Madison, WI 53706, USA

Radical cyclizations by C-S bond homolysis (*e.g.*, **1b**) as well as via 1,5-hydrogen atom transfer (*e.g.*, **12**) and an alternative anionic cyclization provided functionalized, 2,3-disubstituted tetrahydrofurans.

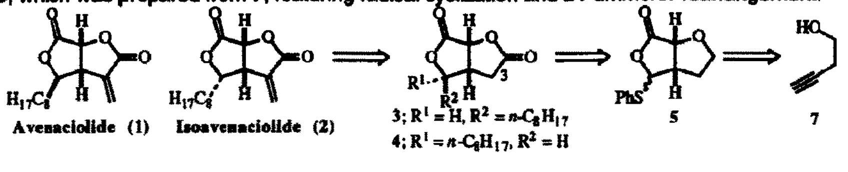


Tetrahedron Letters, **1994**, *35*, 5841

A Short Route to Avenaciolide & Isoavenaciolide via Radical Cyclization

Steven D. Burke,* Kyung Woon Jung and Roman E. Perri
Department of Chemistry, University of Wisconsin-Madison, Madison, WI 53706, USA

For the formal total syntheses of avenaciolide (1) and isoavenaciolide (2), 3-normethylene analogs 3 and 4 were made from 5, which was prepared from 7, featuring radical cyclization and a Pummerer rearrangement.

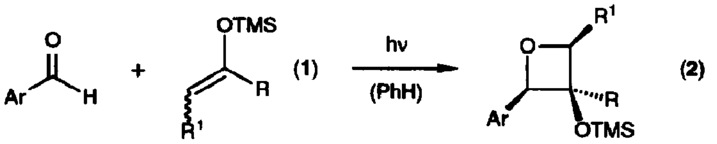


Tetrahedron Letters, **1994**, *35*, 5845

STEREOSELECTIVE PHOTOCYCLOADDITION OF SILYL ENOL ETHERS TO ALDEHYDES. CONFIGURATIONAL CONTROL OF THREE STEREOGENIC CENTERS IN OXETANES

Thorsten Bach, Organisch-Chemisches Institut der Universität, Orléansring 23, D-48149 Münster, Germany

3,4-Disubstituted 2-aryl-3-silyloxy-oxetanes **2** are obtained with good to excellent regio- and diastereoselectivity by the photocycloaddition of the corresponding silyl enol ethers **1** to aromatic aldehydes.

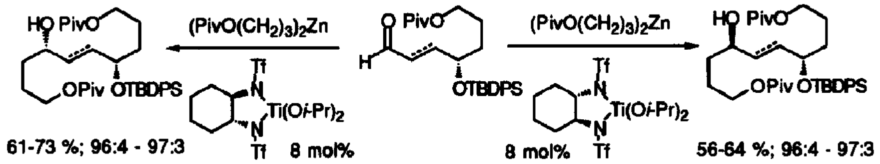


47-87 % yield

Tetrahedron Letters, **1994**, *35*, 5849

Enantioselective Preparation of C_2-Symmetrical 1,4-Diols

Stephan Vettel and Paul Knochel*
Fachbereich Chemie der Philipps-Universität Marburg, D - 35032 Marburg, Germany

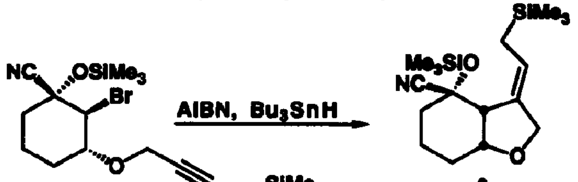


Tetrahedron Letters, **1994**, *35*, 5853

Synthesis of Carbo- and Heterocyclic Compounds by Radical-Initiated Cyclizations of Propargylic Silanes

Dieter Schinzer* , Peter G. Jones and Kerstin Obierey
Institut für Organische Chemie der Technischen Universität Braunschweig, Hagenring 30, D-38106 Braunschweig, Germany

Propargylic silanes of type **1** undergo smooth cyclization to **2** in refluxing benzene in the presence of AIBN and tributyltin hydride



1 **2**

Tetrahedron Letters, **1994**, *35*, 5857

NEW PERSPECTIVES IN THE FORMATION OF THE GRIGNARD REAGENT.

Eric Péralez, Jean-Claude Négrel* and Michel Chanon, URA 1411 Université Aix-Marseille III, 13013 Marseille (France)

Inhibitors used in low concentration suppress the formation of Grignard reagent. The mechanism is probably a chain process rather than the stoechiometric one generally accepted.

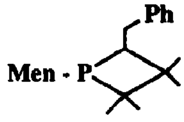
$$RX + Mg^0 \longrightarrow R^\bullet + Mg(I)X$$
$$R^\bullet + Mg^0 \longrightarrow RMg(I)$$
$$RMg(I) + RX \longrightarrow R^\bullet + X^- + [RMg(II)]^+ \xrightarrow{X^-} RMg(II)X$$

Tetrahedron Letters, **1994**, *35*, 5861

AN INVESTIGATION INTO A PALLADIUM CATALYZED HYDROSILYLATION OF OLEFINS.

A. MARINETTI
Laboratoire "Hétéroatomes et Coordination", associé au CNRS
DCPH, Ecole Polytechnique, 91128 Palaiseau Cedex, France

The palladium catalyzed hydrosilylations of cyclopentadiene and styrene in the presence of the phosphetane I are considered.
A 1:1 phosphine:palladium ratio affords the more suitable catalyst precursor. An unprecedented inhibitory effect of a second phosphine ligand is observed.



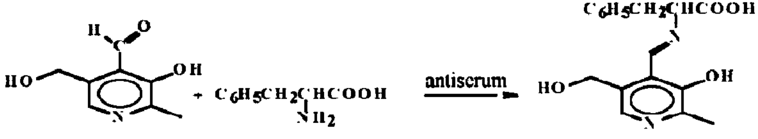
I ; P(*R*) C(*S*) Men =l-menthyl

Tetrahedron Letters, **1994**, *35*, 5865

POLYCLONAL ANTIBODY-CATALYSED ALDIMINE FORMATION

A. Tubul[a], P. Brun[a], R. Michel[b], B. Gharib[b] and M. De Reggi[b]
[a]Laboratoire de Synthèse Organique Sélective, URA 1320, Faculté des Sciences de Luminy, 163 Avenue de Luminy, case 901, F-13288, Marseille Cedex 9, France. [b]INSERM U 399, 27 Boulevard J. Moulin, F-13385, Marseille Cedex 5, France.

An antiserum catalysed imine formation between pyridoxal and phenylalanine is described under conditions in which, the uncatalysed reaction is not observed. This antibodies preparation presents a very good specificity for the pyridoxal structure

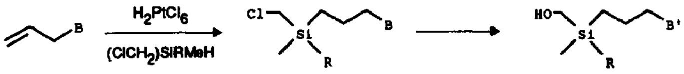


Tetrahedron Letters, **1994**, *35*, 5869

SYNTHESIS OF SILICON PRECURSORS OF MODIFIED OLIGONUCLEOTIDES

Laurent Latxague[1], Jacques Thibon[1], Christel Guillot[1], Serge Moreau[2] and Gérard Déléris[1]*
1: Laboratoire de Chimie Bioorganique, Université Bordeaux 2, 146 Rue Léo Saignat, F-33076 Bordeaux, France; 2: Laboratoire de Biophysique Moléculaire, INSERM U386, Université Bordeaux 2, 146 Rue Léo Saignat, F-33076 Bordeaux, France.

The synthesis of four silicon nucleoside analogues for use as modified antisense oligonucleotide precursors is described



B = Thymine,
6-Chloropurine.
R = CH_2Cl, Me.

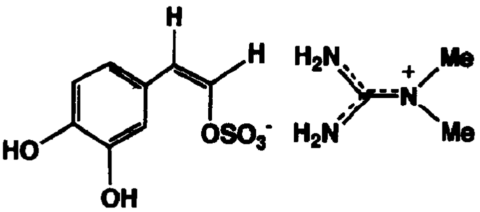
B' = Thymine,
adenine.
R = CH_2OH, Me.

Tetrahedron Letters, **1994**, *35*, 5873

Narains: *N, N*-Dimethylguanidinium Styryl Sulfates, Metamorphosis Inducers of Ascidian Larvae from a Marine Sponge *Jaspis* sp.

Sachiko Tsukamoto, Haruko Kato, Hiroshi Hirota, and Nobuhiro Fusetani*

Fusetani Biofouling Project, Exploratory Research for Advanced Technology (ERATO), Research Development Corporation of Japan (JRDC), c/o Niigata Engineering Co., Ltd., Isogo-ku, Yokohama 235, Japan



(*Z*)-Narain

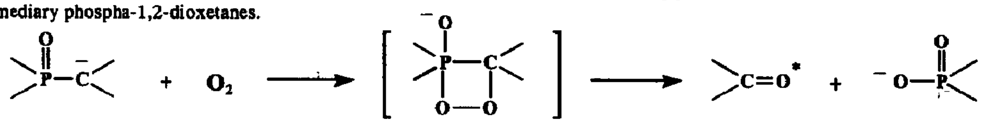
(*E*)- and (*Z*)-Nrains were isolated, and their structures were determined.

Tetrahedron Letters, **1994**, *35*, 5875

CHEMILUMINESCENT OXIDATION OF PHOSPHONATES: PHOSPHA-1,2-DIOXETANES AS POSSIBLE INTERMEDIATES.

Jiro Motoyoshiya,* Yasuhiro Isono, Satoko Hayashi, Yasue Kanzaki, and Sadao Hayashi,
Department of Materials Creation Chemistry, Faculty of Textile Science & Technology,
Shinshu University, Ueda, Nagano 386, Japan

Chemiluminescence observed in the oxidation of phoaphonate carbanions gives a strong proof of intermediary phospha-1,2-dioxetanes.

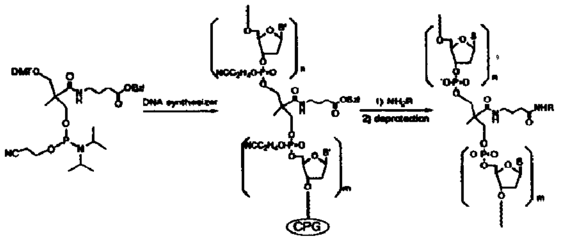


Tetrahedron Letters, **1994**, *35*, 5879

A Novel Phosphoramidite for the Site-Selective Introduction of Functional Groups into Oligonucleotides via Versatile Tethers

Masayuki Endo, Yoshitaka Saga, and Makoto Komiyama*
Department of Chemistry and Biotechnology, Faculty of Engineering, University of Tokyo, Hongo, Bunkyo-ku, Tokyo, 113, Japan

A phosphoramidite monomer, which has a benzyl ester moiety in the side chain and is useful for the site-selective introduction of functional groups into oligonucleotides via various tethers, has been synthesized.

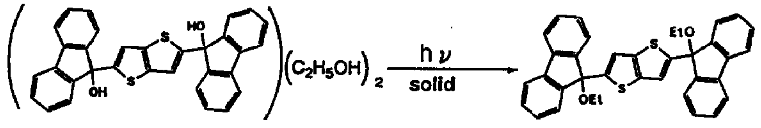


Tetrahedron Letters, **1994**, *35*, 5883

Solid-State Photosolvolysis of Clathrate Crystals Including Ethanol as a Guest Component.

Naoto Hayashi, Yasuhiro Mazaki and Keiji Kobayashi*
Department of Chemistry, College of Arts and Sciences.
The University of Tokyo, Komaba, Meguro-ku, Tokyo 153 Japan

Photosubstitution to the host compound by guest ethanol was achieved in the clathrate crystals.

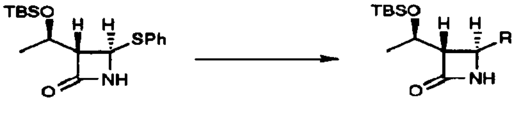


Tetrahedron Letters, **1994**, *35*, 5887

Copper-Assisted Substitution Reactions for Phenylthio Group of a 4-Phenylthioazetidinone Derivative

Tetsuo Shimamoto, Hidekazu Inoue, Takuro Yoshida, Rie Tanaka, Takashi Nakatsuka and Masaji Ishiguro*
Suntory Institute for Biomedical Research, Shimamoto, Osaka 618, Japan

The phenylthio group of 4-phenylthioazetidinone (1) was readily substituted with copper(I) salts of carboxylates, thiocarboxylates, and copper(I) enolates of malonates and β-ketoesters to give synthetic intermediates (3 and 4) for penem and carbapenem antibiotics.



1

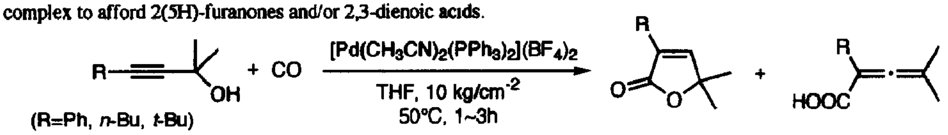
2: R=OAc
3: R=SAcyl
4: $R=CX(CO_2Y)_2$
X=H or Me
Y=Me or allyl

Tetrahedron Letters, **1994**, *35*, 5889

Carbonylation of Tertiary Propargylic Alcohols Catalyzed by a Cationic Palladium(II) Complex: Synthesis of 2(5H)-Furanones

Koichi Matsushita, Tsunenori Komori, Shuichi Oi and Yoshio Inoue*
Department of Engineering Science, Faculty of Engineering, Tohoku University, Aramaki Aoba, Aoba-ku, Sendai 980-77 (Japan)

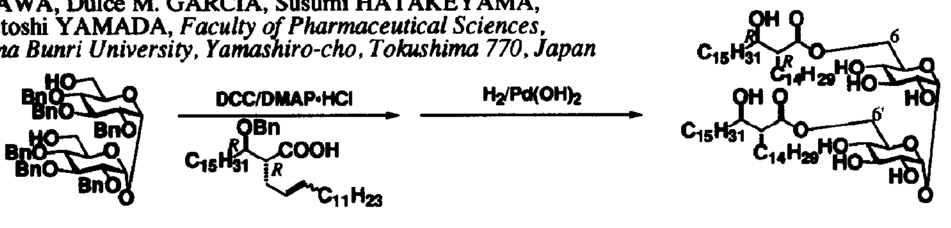
Tertiary propargylic alcohols reacted with carbon monoxide in the presence of catalytic quantities of a cationic palladium(II) complex to afford 2(5H)-furanones and/or 2,3-dienoic acids.



Tetrahedron Letters, **1994**, *35*, 5891

SYNTHESES AND CHARACTERIZATION OF FOUR DIASTEREOMERS OF TREHALOSE-6, 6'-DICORYNOMYCOLATES (TD BH32)

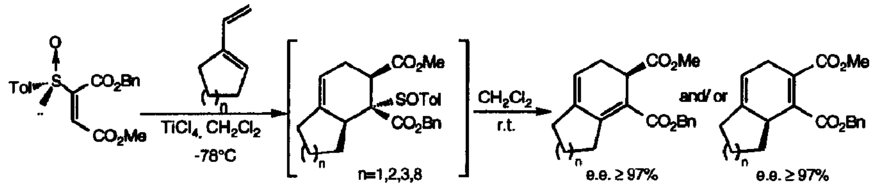
Mugio NISHIZAWA,* Ryutaro MINAGAWA, Dulce M. GARCIA, Susumi HATAKEYAMA, and Hidetoshi YAMADA, *Faculty of Pharmaceutical Sciences, Tokushima Bunri University, Yamashiro-cho, Tokushima 770, Japan*



Tetrahedron Letters, **1994**, *35*, 5895

A HIGHLY ENANTIOSELECTIVE APPROACH TO FUNCTIONALIZED [4.n.0] BICYCLIC COMPOUNDS.

Juan C. Carretero,* José L. García Ruano* and Luisa M. Martín Cabrejas
Departamento de Química (C-I), Universidad Autónoma, Cantoblanco, 28049-Madrid, Spain

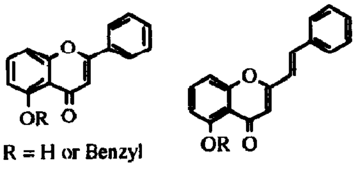


Tetrahedron Letters, **1994**, *35*, 5899

5-HYDROXY-2-(PHENYL OR STYRYL)CHROMONES: ONE-POT SYNTHESIS AND C-6, C-8 ^{13}C NMR ASSIGNMENTS

Artur M.S. Silva, Diana C.G.A. Pinto and José A.S. Cavaleiro*
Department of Chemistry, University of Aveiro, 3800 Aveiro, Portugal

An efficient one-pot synthesis of 5-hydroxy-2-(phenyl or styryl)chromones) is described. For their C-6,C-8 centres it is shown that the literature chemical shift values must be interchanged.



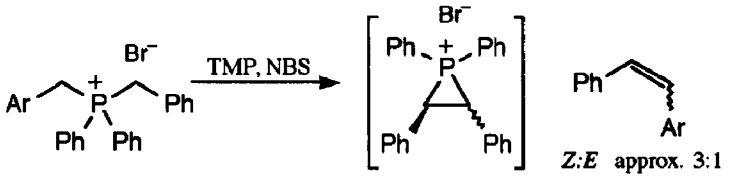
R = H or Benzyl

Tetrahedron Letters, **1994**, *35*, 5903

RAMBERG BÄCKLUND TYPE REACTIONS OF PHOSPHONIUM SALTS.

Nicholas J. Lawrence*
and Faiz Muhammad, Dept. of Chemistry, UMIST, PO Box 88, Manchester, M60 1QD, UK.

Treatment of benzylphosphonium salts with *N*-Bromosuccinimide and 2,2,6,6-tetramethylpiperidine gives *cis* alkenes.

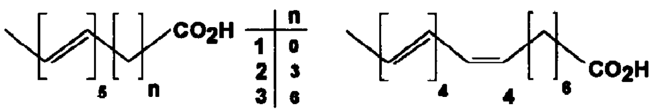


Tetrahedron Letters, **1994**, *35*, 5907

A GENERAL AND PRACTICAL SYNTHESIS OF LINEAR CONJUGATED PENTAENOIC ACIDS

André A. Souto,[a,b] A. Ulises Acuña[b] and Francisco Amat-Guerri[a]*
[a]Instituto de Química Orgánica, C.S.I.C., Juan de la Cierva 3, 28006 Madrid, Spain and
[b]Instituto de Química Física *Rocasolano*, C.S.I.C., Serrano 119, 28006 Madrid, Spain

Acids 1 to 4 have been prepared by Wittig olefination of *all(E)*-2,4,6,8-decatetraenal with the appropiate ylide.

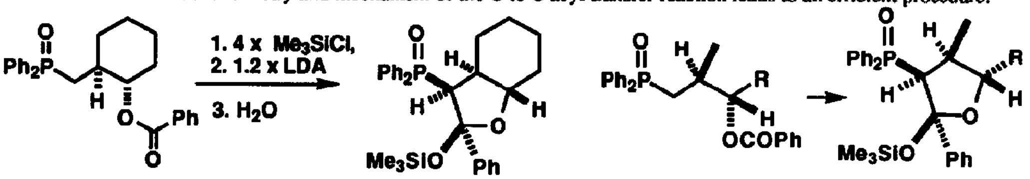


Tetrahedron Letters, **1994**, *35*, 5911

STEREOSELECTIVE ACYL TRANSFER REACTIONS CONTROLLED BY THE DIPHENYLPHOSPHINOYL GROUP: X-RAY STRUCTURES OF STABLE CRYSTALLINE SILYLATED TETRAHEDRAL INTERMEDIATES,

Neil Feeder, Gordon Hutton and Stuart Warren, University Chemical Laboratory, Lensfield Road, Cambridge, CB2 1EW England

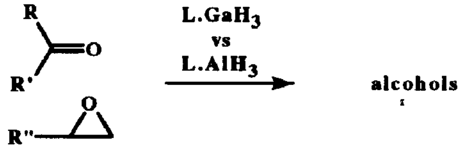
Elucidation of the stereochemistry and mechanism of the O to C acyl transfer reaction leads to an efficient procedure.



Tetrahedron Letters, **1994**, *35*, 5915

FUNCTIONAL GROUP REDUCTIONS WITH LEWIS BASE ADDUCTS OF GALLANE.

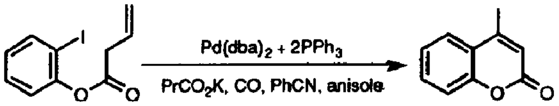
Colin L. Raston*, Anna F. H. Siu, Carolyn J. Tranter and David J. Young*
Faculty of Science and Technology, Griffith University, Nathan 4111, Brisbane, Australia.



Tetrahedron Letters, **1994**, *35*, 5919

INTRAMOLECULAR CYCLIZATION OF *ORTHO*-IODOPHENYL 3-BUTENOATE TO 4-METHYLCOUMARIN: CATALYSIS BY PALLADIUM COMPLEXES

Marta Catellani, Gian Paolo Chiusoli, Maria Chiara Fagnola and Giovanna Solari
Dipartimento di Chimica Organica e Industriale dell'Università, Viale delle Scienze, I-43100 Parma, Italy

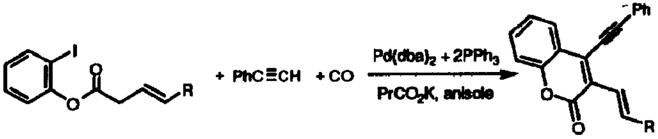


A Pd catalyst causes *o*-iodoaryl 3-butenoate to cyclize to 4-methylcoumarin in the presence of CO and benzonitrile.

Tetrahedron Letters, **1994**, *35*, 5923

A NEW PALLADIUM-CATALYZED SYNTHESIS OF 3,4-DISUBSTITUTED COUMARINS FROM 3-ALKENOATES OF *ORTHO*-IODOPHENOL, PHENYLACETYLENE AND CARBON MONOXIDE

Marta Catellani, Gian Paolo Chiusoli, Maria Chiara Fagnola and Giovanna Solari
Dipartimento di Chimica Organica e Industriale dell'Università, Viale delle Scienze, I-43100 Parma, Italy

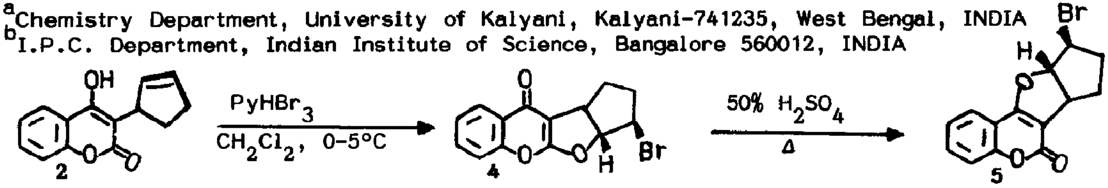


o-Iodoaryl-3-alkenoates react with phenylacetylene and CO in the presence of a Pd catalyst to give new coumarins.

Tetrahedron Letters, **1994**, *35*, 5927

AN UNUSUAL CHROMONE FORMATION, AND ITS REARRANGEMENT TO A COUMARIN

Krishna C. Majumdar*[a], Prabir K. Choudhury[a+] and Munirathinam Nethaji[b]
[a]Chemistry Department, University of Kalyani, Kalyani-741235, West Bengal, INDIA
[b]I.P.C. Department, Indian Institute of Science, Bangalore 560012, INDIA



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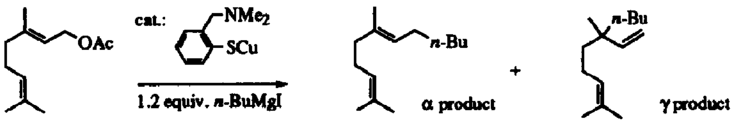
Tetrahedron Letters, **1994**, *35*, 5931

THE USE OF ORTHO-CHELATING ARENETHIOLATE NON-TRANSFERABLE GROUPS IN THE COPPER(I) CATALYZED SELECTIVE α OR γ SUBSTITUTION OF ACYCLIC ALLYLIC SUBSTRATES WITH GRIGNARD REAGENTS.

M. van Klaveren,[a] E. S. M. Persson,[b] D. M. Grove,[a] J. E. Bäckvall[b] and G. van Koten[a]
a) Utrecht University, Debye Institute, Padualaan 8, 3584 CH Utrecht, The Netherlands
b) University of Uppsala, Box 531, S-751 21 Uppsala, Sweden

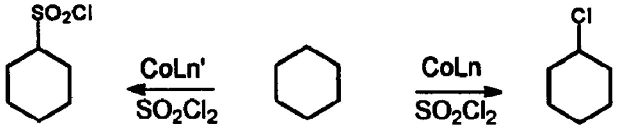


Et_2O, 0°C, 120 min.; $\alpha : \gamma = 0 : 100$
THF, -30°C, 5 min.; $\alpha : \gamma = 100 : 0$

Tetrahedron Letters, **1994**, *35*, 5935

COBALT(II)-PORPHYRIN CATALYSED SELECTIVE FUNCTIONALIZATION OF ALKANES WITH SULFURYLCHLORIDE: A REMARKABLE SUBSTITUENT EFFECT

Vibha Khanna, Pitchiah Tamilselvan, Swinder Jeet Singh Kalra and Javed Iqbal*
Department of Chemistry, Indian Institute of Technology, Kanpur 208 016, INDIA

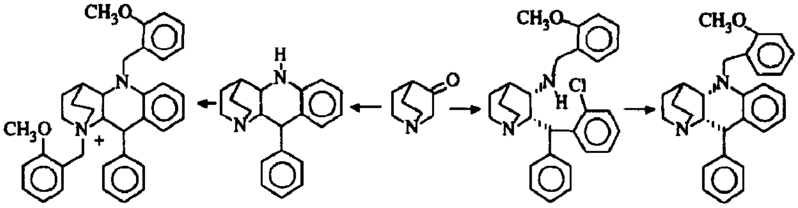


Tetrahedron Letters, **1994**, *35*, 5939

Synthesis of a Benzo[b]-1,5-naphthyridine Derivative as a Potential Constrained NK-1-Receptor Antagonist

Giovanni Viti,* Danilo Giannotti, Rossano Nannicini, Giuseppe Balacco, Vittorio Pestellini.
Chemical Research Department, Menarini S.r.l., Via Sette Santi 3, 50131 Firenze, Italy

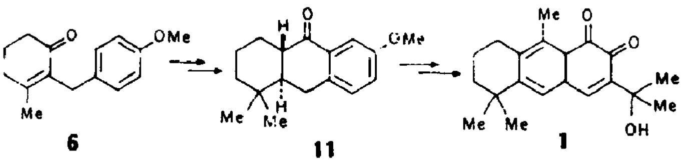
A short synthesis of a cyclic constrained analogue of the potent substance P antagonist (±) CP-96345, containing the 1,4-ethano-benzo[b]-1,5-naphthyridine system, is described



Tetrahedron Letters, **1994**, *35*, 5943

FIRST TOTAL SYNTHESIS OF THE LINEAR ABIETANE DITERPENOID ORTHOQUINONE UMBROSONE

K. Ghosh and U.R. Ghatak*
Department of Organic Chemistry
Indian Association for the Cultivation
of Science, Jadavpur, Calcutta-700032,
India.

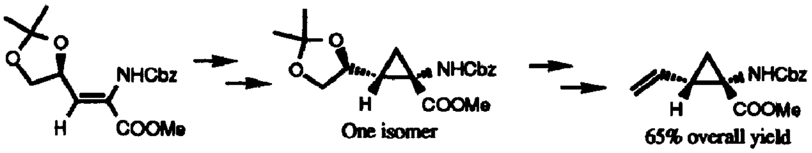


A convergent synthesis of the linear diterpenoid orthoquinone, umbrosone **1** is described from **6** through the ketone **11**

Tetrahedron Letters, **1994**, *35*, 5945

Highly Efficient and Stereocontrolled Synthetic Route to Enantiopure ACC Derivatives. Synthesis of (+)-*N*-Benzyloxycarbonyl-γ,δ-dehydro-*allo*-Coronamic Acid Methyl Ester.

José M. Jiménez, Ramon Casas, and Rosa M. Ortuño.*
Departament de Química, Universitat Autònoma de Barcelona, 08193 Bellaterra, Spain.

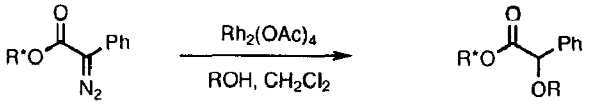


Tetrahedron Letters, **1994**, *35*, 5949

DIASTEREOSELECTIVITY IN THE O–H INSERTION REACTIONS OF RHODIUM CARBENOIDS DERIVED FROM PHENYLDIAZOACETATES OF HOMOCHIRAL ALCOHOLS

E. Aller, G. G. Cox, D. J. Miller and C. J. Moody
Department of Chemistry, Loughborough University of Technology, Loughborough, Leicestershire LE11 3TU, U K.

Rh(II) catalysed decomposition of the phenyldiazoacetates **3** (R* = chiral group) in the presence of alcohols results in O–H insertion to give the products **4-6** in varying diastereoselectivity (5-53%).



3

4 R = Me; **5** R = ^{i}Pr, **6** R = ^{t}Bu

Tetrahedron Letters, **1994**, *35*, 5953

NEUTRAL DITOPIC RECEPTORS FOR ADENOSINE MONOPHOSPHATE.

Stephen M. Lacy, Dmitry M. Rudkevich, Willem Verboom, and
David N. Reinhoudt,* Laboratory of Organic Chemistry, University of Twente,
P. O. Box 217, 7500 AE Enschede, The Netherlands.

Novel neutral ditopic receptors for AMP consisting of an immobilised Lewis acidic centre covalently coupled to thymine are described.