

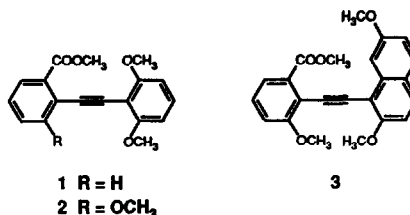
GRAPHICAL ABSTRACTS

**MOLECULES FOR INTRAMOLECULAR RECOGNITION. SYNTHESIS AND STRUCTURES OF DIARYL- AND ARYLNAPHTHYLETHYNES.**

*Tetrahedron Lett.* 1990, 31, 6753

Kevin L. Evans, Philippe Prince, Enoch T. Huang, Keisha R. Boss, and Richard D. Gandour\*  
Department of Chemistry, Louisiana State University, Baton Rouge, Louisiana 70803-1804

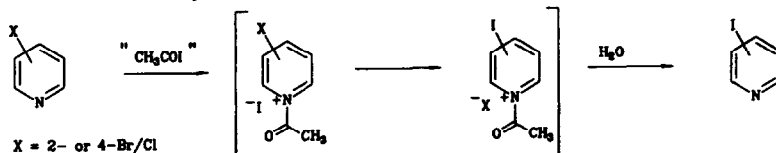
While synthesizing models, 1 - 3, for intramolecular recognition, a simple and efficient method for forming terminal arylethynes was developed and palladium-catalyzed coupling chemistry of alkynes with either aryl iodides of aryl triflates was used to form crowded disubstituted alkynes.



**IODOPYRIDINES FROM BROMO- AND CHLOROPYRIDINES**

*Tetrahedron Lett.* 1990, 31, 6757

Robert C. Corcoran\* and Seong H. Bang  
Department of Chemistry, University of Nevada, Reno, NV 89557



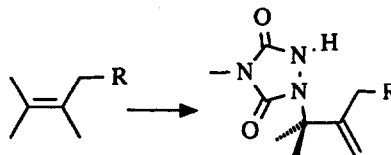
Bromo- and chloropyridines may be converted to the corresponding iodopyridines by treatment with sodium iodide and acetyl chloride in acetonitrile.

**A COMPARISON OF THE ENE REACTIONS OF SINGLET OXYGEN AND TRIAZOLINEDIONES WITH ALKYL SUBSTITUTED TETRAMETHYLETHYLENES.**

*Tetrahedron Lett.* 1990, 31, 6759

Edward L. Clennan, Jaya J. Koola, Kristine A. Oolman  
Department of Chemistry, University of Wyoming,  
Laramie WY, 82070

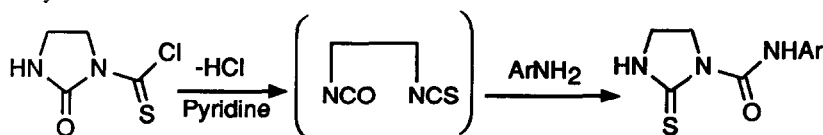
The reactions of N-methyltriazolinedione (MeTAD) with substituted tetramethylethylenes are reported and compared to the singlet oxygen reactions. The regiochemistry in the MeTAD reactions is attributed to steric effects and in the singlet oxygen reactions to the availability of allylic hydrogens.



**THE UNEXPECTED SYNTHESIS OF 2-THIOXO-1-IMIDAZOLIDINECARBOXAMIDES FROM 2-OXO-1-IMIDAZOLIDINETHIOCARBONYL CHLORIDE**

*Tetrahedron Lett.* 1990, 31, 6763

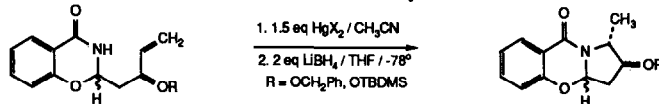
Garry M. Pilling and Robert E. Johnson, Sterling Research Group, Rensselaer, NY 12144  
The reaction of 2-oxo-1-imidazolidinethiocarbonyl chloride with aromatic amines gives N-aryl-2-thioxo-1-imidazolidinecarboxamides.



THE MAGNITUDE OF THE STEREDIRECTING EFFECT OF AN ALLYLIC ALKOXY-SUBSTITUENT IN AN AMIDOMERCURATION CYCLIZATION

James M. Takacs\*, Mark A. Helle, Bharat J. Sanyal and Todd A. Eberspacher  
Department of Chemistry, University of Nebraska-Lincoln, Lincoln, NE 68588-0304

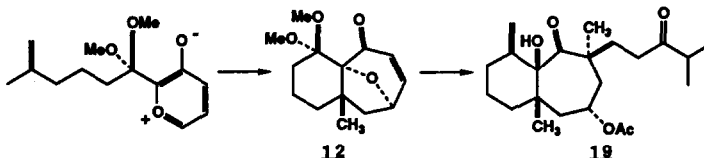
Salicylamide condenses with 3-(alkoxy)-4-pentenals to give cyclic amidals which readily undergo diastereoselective mercury(II)-mediated amidocyclization. The stereodirecting effect of the allylic alkoxy-substituent overwhelms the competing influence of the stereogenic amidal center to control the stereochemical course of the amidomercuration cyclization.



INTRAMOLECULAR DIPOLAR ADDITION OF CARBONYL YLIDES.  
STUDIES OF SUBSTITUTED BICYCLOUNDECANONES.

D.R. Williams,\* J.W. Benbow, E.E. Allen  
Department of Chemistry, Indiana University  
Bloomington, Indiana 47405, U.S.A.

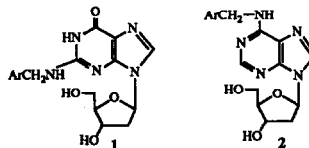
Transformations derived from [3+2]-intramolecular cycloaddition of a 3-oxidopyrylium ylide lead to the bicycloundecanone **19**.



SYNTHESES OF POLYCYCLIC AROMATIC HYDROCARBON-NUCLEOSIDE AND OLIGONUCLEOTIDE ADDUCTS SPECIFICALLY ALKYLATED ON THE AMINO FUNCTIONS OF DEOXYGUANOSINE AND DEOXYADENOSINE

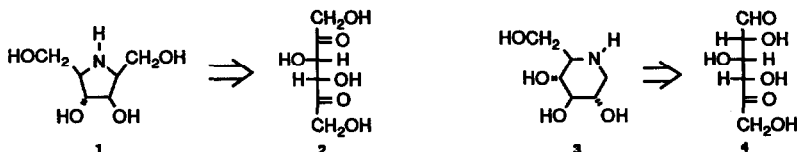
Hongmee Lee, Michael Hinz,<sup>†</sup> John J. Stezowski,<sup>†</sup> and Ronald G. Harvey\*, *Ben May Institute, University of Chicago, Chicago, Illinois 60637 and <sup>†</sup>Institut für Organische Chemie und Isotopenforschung, der Universität Stuttgart, Stuttgart, FRG*

Efficient syntheses of **1** and **2** and their incorporation into oligonucleotides are described.



PYRROLIDINE AND PIPERIDINE AMINOSUGARS FROM DICARBONYL SUGARS IN ONE STEP.  
CONCISE SYNTHESIS OF 1-DEOXYNOJIRIMYCIN

Allen B. Reitz\* and Ellen W. Baxter, Janssen Research Foundation and R. W. Johnson Pharm. Res. Inst., Spring House, PA 19477.

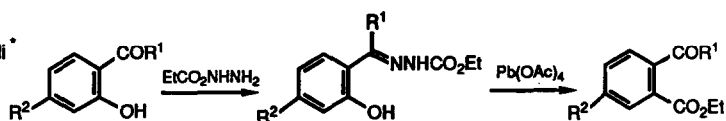


Dicarbonyl sugars are substrates for the direct preparation of aminosugars by a double reductive amination reaction. In this manner, pyrrolidine **1** and 1-deoxynojirimycin (**3**) were prepared from 5-keto-D-fructose (**2**) and 5-keto-D-glucose (**4**), respectively.

*Tetrahedron Lett.* 1990, 31, 6781

**SYNTHESIS OF  $\alpha$ -ACYLARLYLCARBOXYLIC ESTERS:  
A NEW REPLACEMENT OF PHENOLIC HYDROXYL BY  
A CARBONYL GROUP**

Alan R. Katritzky\* and Antigoni Kotali\*  
Department of Chemistry,  
University of Florida,  
Gainesville, FL 32611-2046, USA



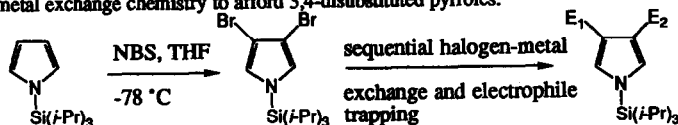
A wide variety of the title esters are prepared in good yields via a new two step replacement of phenolic hydroxyl by an ethoxycarbonyl group.

*Tetrahedron Lett.* 1990, 31, 6785

**A CONVENIENT METHOD FOR THE SYNTHESIS OF UNSYMMETRICAL  
3,4-DISUBSTITUTED PYRROLES**

Patrick W. Shum and Alan P. Kozikowski  
Department of Chemistry, Chevron Science Center, University of Pittsburgh, Pittsburgh, PA 15260

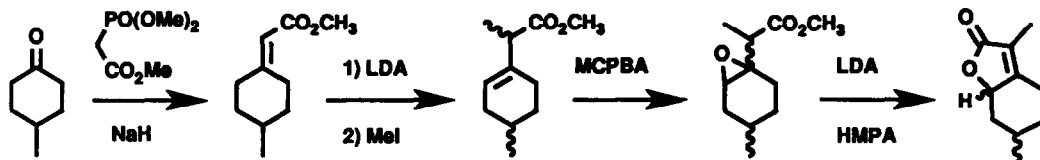
A simplified procedure for the synthesis of 3,4-dibromo-1-[tris(1-methylethyl)silyl]-1H-pyrrole (2) is described together with its sequential halogen-metal exchange chemistry to afford 3,4-disubstituted pyrroles.



*Tetrahedron Lett.* 1990, 31, 6789

**A VERSATILE SYNTHESIS OF BUTENOLIDES  
TOTAL SYNTHESIS OF ( $\pm$ )-MINTLACTONE**

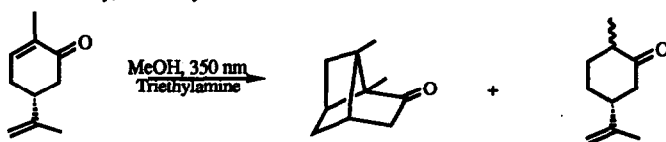
Robert M. Cory,\* Brian M. Ritchie and Anita M. Shrier  
Department of Chemistry, University of Western Ontario, London, Ontario, Canada N6A 5B7



*Tetrahedron Lett.* 1990, 31, 6793

**Electron Transfer Mediated Photoreductions of  $\alpha,\beta$ -Unsaturated Ketones**

Richard S. Givens\*, Rominder Singh, Jiyou Xue, Young-Hee Park  
Department of Chemistry, University of Kansas, Lawrence, KS 66045

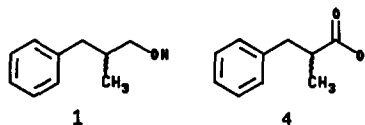


The photoreduction of  $\alpha,\beta$ -unsaturated ketones with triethylamine-alcohol solutions yields dihydro- and pinacol products. With 2 to 3 M triethylamine in methanol, the photoreduction occurs with good efficiency. Protonation by methanol, shown by labeling studies, occurs at the  $\beta$ -carbon to yield the dihydro product.

**Synthesis of Chiral Building Blocks for Selective Adenosine Receptor Agents. Lipase-Catalyzed Resolution of 2-Benzylpropanol and 2-Benzylpropionic Acid.**

Deborah L. Delinck and Alexey L. Margolin\*  
Merrell Dow Research Institute, Indianapolis Center  
9550 N. Zionsville Rd., Indianapolis, IN 46268

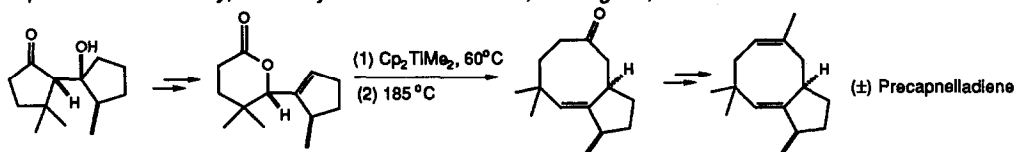
Both enantiomers of 2-benzylpropanol (1) and 2-benzylpropionic acid (4) have been prepared using a lipase-catalyzed resolution in an organic solvent and in water.



**A CLAISEN REARRANGEMENT STRATEGY FOR THE THREE-ATOM RING EXPANSION OF CYCLIC KETONES. A TOTAL SYNTHESIS OF (±) PRECAPNELLADIENE**

Nicos A. Petasis\* and Michael A. Patane

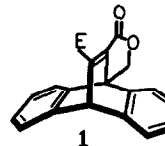
Department of Chemistry, University of Southern California, Los Angeles, California 90089



**ABSOLUTE ASYMMETRIC INDUCTION DIFFERENCES IN DUAL PATHWAY PHOTOREACTIONS**

Jianxin Chen, Phani Raj Pokkuluri, John R. Scheffer,\* and James Trotter\*  
Department of Chemistry, University of British Columbia, Vancouver, Canada, V6T 1Y6

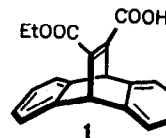
Photolysis of chiral crystals of achiral ester-lactone 1 (E = COOMe) affords two chiral di- $\pi$ -methane photoproducts, one of which is formed in near-quantitative enantiomeric excess while the other is produced as a racemate.



**ASYMMETRIC INDUCTION IN THE SOLID STATE PHOTOCHEMISTRY OF SALTS OF CARBOXYLIC ACIDS WITH OPTICALLY ACTIVE AMINES**

Anna D. Gudmundsdottir and John R. Scheffer\*, Department of Chemistry, University of British Columbia, Vancouver, Canada

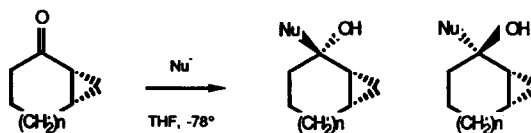
The achiral carboxylic acid 1 forms salts with optically active amines which, when irradiated in the solid state, rearrange to chiral photoproducts with moderate to good enantioselectivity.



**Theoretical Studies of the Conformational Control of Additions to Bicyclo[m.1.0]alkan-2-ones. Application and Validation of the WIZARD Technique.**

Daniel P. Dolata, David R. Spina  
Department of Chemistry, University of Arizona  
Tucson, AZ 85721

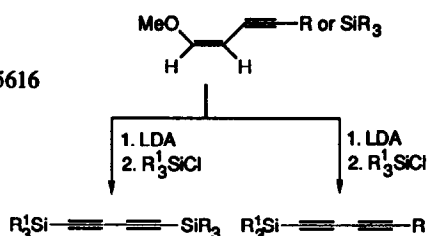
Conformational analysis of the reaction shown was performed utilizing the author's WIZARD program. The results were validated by a variety of other computational techniques, and then used to explain the diastereoselectivity of the reaction.



**NOVEL SYNTHESSES OF 1-(TRIALKYLSILYL)-1,3-DIYNES AND 1,4-BIS-SILYL-1,3-BUTADIYNES FROM (Z)-1-METHOXY-1-BUTENE-3-YNE**

E. C. Stracker and G. Zweifel\*  
Department of Chemistry, University of California, Davis, California 95616

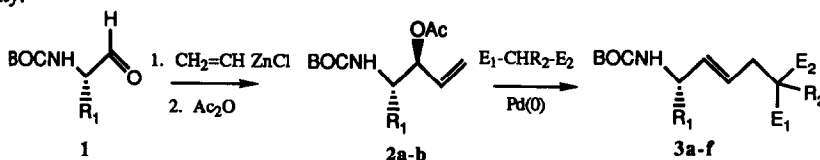
Alkylation or silylation of lithiated (Z)-1-methoxy-1-buten-3-yne affords the corresponding substituted methoxyenynes which, upon sequential treatment with lithium diisopropylamide followed by chlorotrialkylsilanes, furnish 1-(trialkylsilyl)-1,3-diyynes and 1,4-bis-silyl-1,3-butadiynes, respectively.



**A STEREOCONTROLLED SYNTHESIS OF TRANS-ALLYLIC AMINES**

Wayne J. Thompson\*, Thomas J. Tucker, John E. Schwering and James L. Bames, Department of Medicinal Chemistry, Merck, Sharp and Dohme Research Laboratories, West Point, PA 19486

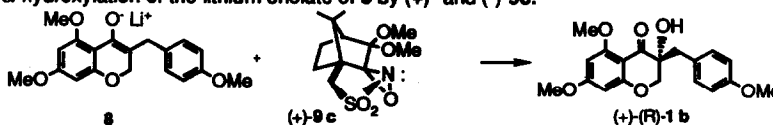
Chiral BOC protected  $\alpha$ -aminoaldehydes are transformed in three steps into protected trans-allylic amines with virtually complete stereoselectivity.



**A HIGHLY ENANTIOSELECTIVE SYNTHESIS OF (R)- AND (S)-5,7-O-DIMETHYLEUCOMOL**

Franklin A. Davis,\* and Bang-Chi Chen  
Department of Chemistry, Drexel University, Philadelphia, PA 19104

Both (R)- and (S)-5,7-O-dimethyleucomol **1b** were synthesized in 57% overall yield in >96% ee via the enantioselective  $\alpha$ -hydroxylation of the lithium enolate of **8** by (+)- and (-)-**9c**.

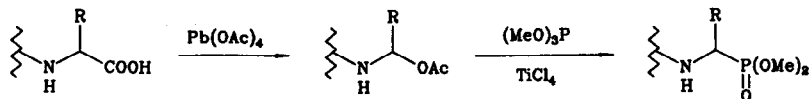


*Tetrahedron Lett.* 1990, 31, 6827

### CONVERSION OF $\alpha$ -AMINOCARBOXYLIC ACIDS TO $\alpha$ -AMINOPHOSPHONIC ACIDS

Robert C. Corcoran\* and Jennifer M. Green

Department of Chemistry, University of Nevada, Reno, NV 89557



Naturally occurring  $\alpha$ -amino acids may be converted to their phosphonate analogues in good yield by oxidative decarboxylation with lead tetraacetate, followed by reaction with trimethylphosphite and titanium tetrachloride.

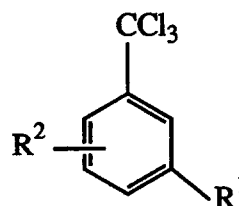
*Tetrahedron Lett.* 1990, 31, 6831

### SELECTIVE TRICHLOROMETHYLATION OF DIALKYLARENES AT $\beta$ -POSITION OF THE RING PROMOTED BY ARENE $\pi$ -COMPLEXATION WITH THE IRON(Cp) MOIETY

By Ronald G. Sutherland\*, Chunhao Zhang and Adam Piorko.

Department of Chemistry, University of Saskatchewan  
Saskatoon, Saskatchewan, S7N 0W0, Canada

$\beta$ -Isomers of trichloromethylarenes (arene = indan, tetralin, benzosuberane, isomeric xylenes) have been synthesized in a selective, one-pot sequence.



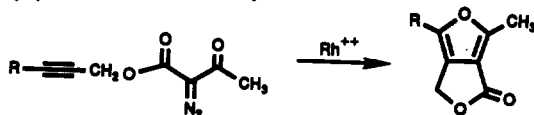
*Tetrahedron Lett.* 1990, 31, 6835

### PREPARATION OF OXYGENATED HETEROCYCLES VIA THE CYCLIZATION REACTION OF $\alpha$ -DIAZO SUBSTITUTED ALKYNES

Frederick R. Kinder and Albert Padwa\*

Department of Chemistry, Emory University Atlanta, GA 30322 USA

$\alpha$ -Diazo alkynyl substituted ketones cyclize to furans when treated with  $Rh_2OAc_4$ .

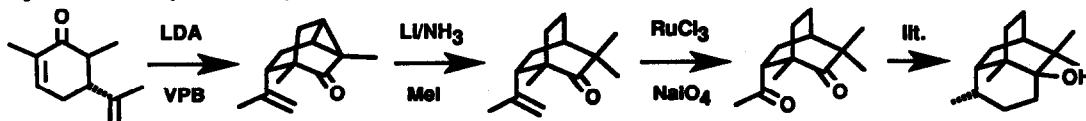


*Tetrahedron Lett.* 1990, 31, 6839

### A DIVERGENT APPROACH TO PATCHOULI SESQUITERP- ENES: SYNTHESIS OF 3-OXOPATCHOULI ALCOHOL, 5-OXO-7-HYDROXY-13-NORCYCLOSEYCHELENE, 6-METHOXY-4,12-DEHYDRO-13-NORCYCLOSEYCHELENE AND PATCHOULI ALCOHOL

Robert M. Cory,\* Murray D. Bailey and Daniel W. C. Tse

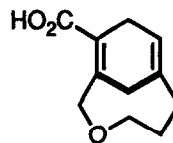
Dept. of Chemistry, University of Western Ontario, London, Ontario, Canada N6A 5B7



**STRUCTURAL STUDIES OF BRIDGEHEAD ALKENES. THE X-RAY CRYSTAL STRUCTURE OF 3-OXABICYCLO[5.3.1]DECA-1(10),7(8)-(Z)-DIENE-10-CARBOXYLIC ACID**

K. J. Shea,\* David K. Cooper, W. P. England, Joseph W. Ziller, and Timothy G. Lease  
Department of Chemistry, University of California, Irvine, Irvine, California 92717

The X-ray crystal structure of 3-oxabicyclo[5.3.1]deca-1(10),7(8)-(Z)-diene-10-carboxylic acid, a highly strained bridgehead diene, is reported.

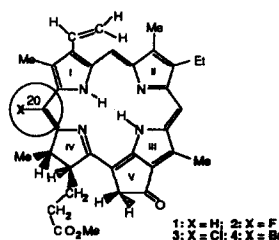


**20-FLUOROMETHYLPYRROPHORBIDE: THE FIRST SYNTHESIS OF A FLUORINE-SUBSTITUTED DERIVATIVE OF CHLOROPHYLL**

Tomass J. Michalski, Evan H. Appelman, Michael K. Bowman, Jerry E. Hunt, James R. Norris  
Chemistry Division, Argonne National Laboratory, Argonne Illinois 60439

Therese M. Cotton and Lydia Raser  
Department of Chemistry, Iowa State University, Ames, Iowa 50011

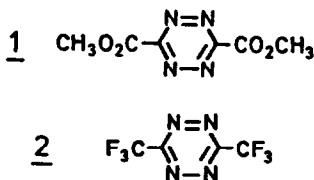
Synthesis and properties of the previously unknown 20-F methylpyrropephorbide **2**, prepared by electrophilic substitution with cesium fluoroxysulfate **5**, are described. Spectroscopic studies of the influence of the fluorine atom on electronic properties of C-20 substituted chlorins are presented. Properties of **2** are compared with those of C-20 H-, Cl-, and Br- substituted derivatives.



**Reaktivität einfacher offenkettiger und cyclischer Dienophile bei Diels-Alder-Reaktionen mit inversem Elektronenbedarf**

Franz Thalhammer, Uwe Wallfahrer u. J. Sauer  
Institut für Organische Chemie der Universität Regensburg, Universitätsstr. 31, D-8400 Regensburg, FRG

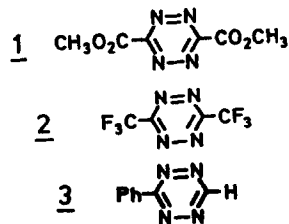
The reactivity of more than 40 open chain and cyclic dienophiles was studied with **1** and **2** as electron poor dienes in inverse type DIELS-ALDER reactions.



**Donor-Akzeptor substituierte Dienophile bei Diels-Alder-Reaktionen mit inversem Elektronenbedarf**

Anton Meier und Jürgen Sauer  
Institut für Organische Chemie der Universität Regensburg, Universitätsstr. 31, D-8400 Regensburg, FRG

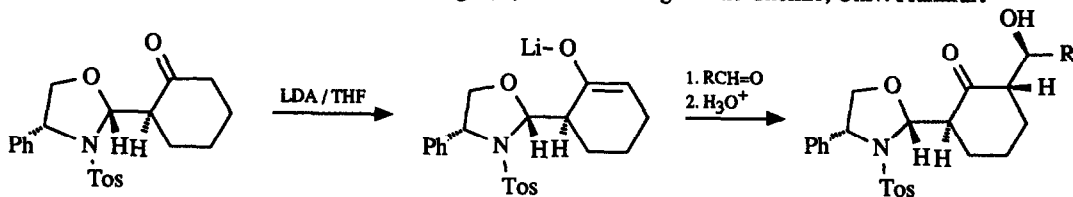
The reactivity and regiochemistry of 1,4- and 1,2-donor-acceptor substituted dienophiles was studied with **1**, **2** and **3** as electron-poor dienes in inverse type DIELS-ALDER reactions.



**ASYMMETRIC ALDOL ADDITION REACTIONS  
OF A CHIRAL 3-SULFONYL-1,3-OXAZOLIDINE-MASKED  
LITHIUM 2-FORMYLCYCLOHEXANONE ENOLATE**

*Tetrahedron Lett.* 1990, 31, 6859

Inga Hoppe<sup>a)</sup>, Dieter Hoppe<sup>\*a)</sup>, Regine Herbst-Imer<sup>b)</sup>, Ernst Eger<sup>\*c)</sup>, a) Institut für Organische Chemie, Univ. Kiel, b) Anorganisch-Chemisches Institut, Univ. Göttingen, c) Institut für Organische Chemie, Univ. Frankfurt

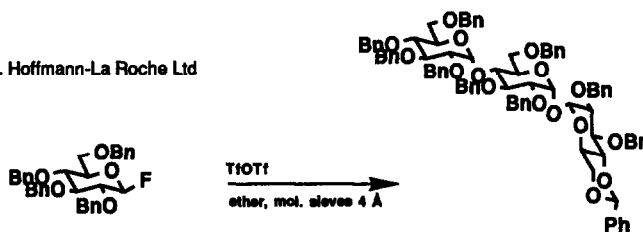


**COMPARISON OF CATALYSTS IN  $\alpha$ -GLUCOSYLATION  
REACTIONS AND IDENTIFICATION OF TRIFLIC ANHYDRIDE  
AS A NEW REACTIVE PROMOTER.**

*Tetrahedron Lett.* 1990, 31, 6863

Hans Peter Wessel  
Pharmaceutical Research Department, F. Hoffmann-La Roche Ltd  
CH-4002 Basel, Switzerland

Reactivity of promoters:  
TMSOTf < AgTf / SnCl<sub>2</sub>  
≤ TIF<sub>4</sub> < TfOTf

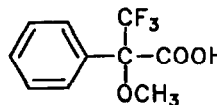


**ENANTIOMERIC PURITY OF MOSHER'S ACID**

*Tetrahedron Lett.* 1990, 31, 6867

Wilfried A. König<sup>\*</sup>, Klaus-Steffen Nippe and Petra Mischnick  
Institut für Organische Chemie, Universität Hamburg,  
Martin-Luther-King-Platz 6, D-2000 Hamburg 13, FRG

Several commercial samples of 2-methoxy-2-phenyl-3,3,3-trifluoropropionic acid (Mosher's acid, MTPA) were investigated for enantiomeric purity using enantioselective capillary gas chromatography with a cyclodextrin stationary phase. Enantiomeric purities were found between 97.89 % and 99.80 % ee.

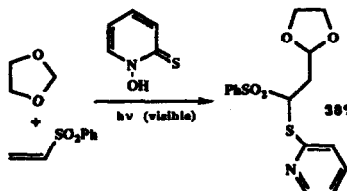


**N-HYDROXY-2-PYRIDINETHIONE: A MILD AND CONVENIENT SOURCE OF HYDROXYL RADICALS**

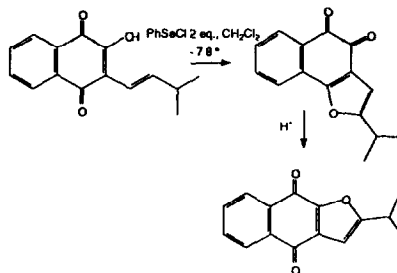
*Tetrahedron Lett.* 1990, 31, 6869

Jean Boivin, Elisabeth Crépon (née da Silva), and Samir Z. Zard<sup>\*</sup>  
Laboratoire de Synthèse Organique associé au C.N.R.S.,  
Ecole Polytechnique,  
F-91128 Palaiseau, France.

N-Hydroxy-2-thiopyridone gives hydroxyl radicals on irradiation with visible light and these can be incorporated in useful radical chain processes involving hydrogen abstraction.





SELENIUM REAGENT IN THE SYNTHESIS OF NAPHTHO[2-3-*b*]FURAN-4-9-DIONESAlaide Braga de Oliveira<sup>‡</sup>, Délio Soares Raslan<sup>‡</sup> and Françoise Khuong-Huu<sup>††\*</sup><sup>‡</sup> Departamento de Química, Instituto de Ciências Exatas, Universidade Federal de Minas Gerais, 31 270, Belo Horizonte, Brasil.<sup>††\*</sup> CNRS, Institut de Chimie des Substances Naturelles, 91 198 Gif-sur-Yvette, France.Summary- Phenylselenoetherification was used to synthesize naphtho[2,3-*b*]furan-4,9-diones and naphtho[2,3-*b*]pyran-5,10-diones from 2-hydroxynaphthoquinones.SYNTHESIS OF  $\alpha$ -KAINIC ACID AND  $\alpha$ -ALLOKAINIC ACID BY Pd(0)

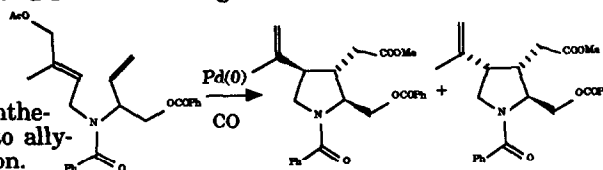
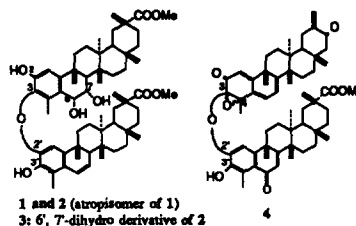
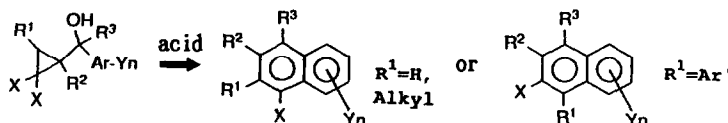
## MEDIATED OLEFIN INSERTION-CARBONYLATION REACTION

Sung-eun Yoo\*, Sang-Hee Lee, Kyu-Yang Yi and Nakcheol Jeong

Korea Research Institute

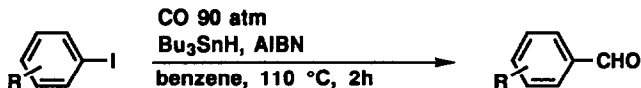
of Chemical Technology

P.O.Box 9, Daedeog Danji, Daejeon, Korea

 $\alpha$ -Kainic acid and  $\alpha$ -allokainic acid were synthesized by Pd(0) mediated olefin insertion into allylic acetate followed by carbonylation reaction.NEW TRITERPENE DIMERS FROM *MAYTENUS ILICIFOLIA*Hideji Itokawa,<sup>a,\*</sup> Osamu Shirota,<sup>a</sup> Hiroshi Morita,<sup>a</sup> Koichi Takeya,<sup>a</sup>  
Nobuo Tomioka<sup>b</sup> and Akiko Itai<sup>b</sup><sup>a</sup> Tokyo College of Pharmacy, Horinouchi 1432-1, Hachioji, Tokyo 192-03, Japan; <sup>b</sup> Faculty of Pharmaceutical Sciences, The University of Tokyo, Hongo, Bunkyo-ku, Tokyo 113, Japan1 and 2 (atropisomer of 1)  
3: 6, 7-dihydro derivative of 2  
4A NOVEL SYNTHESIS OF  $\alpha$ - AND  $\beta$ -HALONAPHTHALENESVIA REGIOSELECTIVE RING CLEAVAGE OF ARYL(*gem*-DIHALOCYCLOPROPYL)METHANOLS AND ITS APPLICATION TO TOTAL SYNTHESIS OF LIGNAN LACTONES, JUSTICIDIN E AND TAIWANIN CShinzo Seko, Yoo Tanabe,<sup>\*</sup> and Gohfu Suzukamo,Takatsuki Research Laboratory,  
Sumitomo Chemical Co., Ltd.,  
Takatsuki, Osaka 569, Japan

**FREE-RADICAL CARBONYLATION.  
CONVERSION OF AROMATIC HALIDES TO ALDEHYDES**

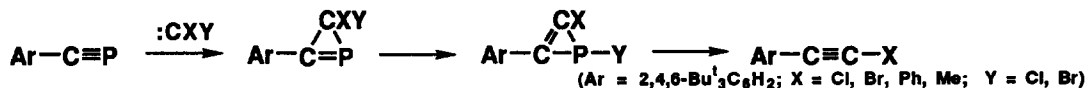
Ilhyong Ryu,\* Kazuya Kusano, Norio Masumi, Hiroshi Yamazaki,  
Akiya Ogawa, and Noboru Sonoda\*  
Department of Applied Chemistry,  
Faculty of Engineering,  
Osaka University, Suita, Osaka 565, Japan



**REACTIONS OF HALOCARBENES WITH PHOSPHAAALKYNE.  
FORMATION OF ACETYLENES via PHOSPHIRENE INTERMEDIATES**

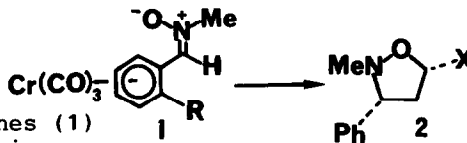
Masaaki Yoshifuji,\* Yoshinori Kawai, and Masafumi Yasunami  
Department of Chemistry, Faculty of Science, Tohoku University, Aoba, Sendai 980, Japan

Halocarbenes reacted with 2-(2,4,6-tri-*t*-butylphenyl)-1-phosphaethyne to give acetylene derivatives via phosphirene intermediates.



**Tricarbonyl(benzaldehyde)chromium(0) Complexes in  
Organic Synthesis: A Highly Stereoselective 1,3-Dipolar  
Cycloaddition of Chromium(0)-Complexed Nitrones**

C. Mukai, W.-J. Cho, I.-J. Kim,  
and M. Hanaoka, Faculty of  
Pharmaceutical Sciences, Kanazawa  
University, Kanazawa 920 Japan

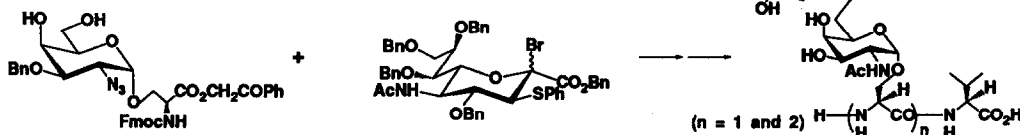


The [3+2]-cycloaddition of the nitrones (1)  
with electron-rich olefins gave the *cis*-  
isoxazolidines (2) in a highly stereoselective manner.

**A HIGHLY STEREoselective SYNTHESIS OF DI- AND TRIMERIC  
SIALOSYL-Tn EPI TOPE: A PARTIAL STRUCTURE OF GLYCOPHORIN A**

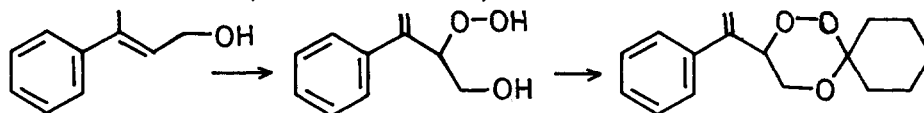
Yoshiaki Nakahara, Hiroyuki Iijima, Shohei Sibayama and Tomoya Ogawa  
RIKEN (The Institute of Physical and Chemical Research), Wako-shi, Saitama, 351-01  
Japan

Synthesis of glycopeptides carrying di- and trimeric sialosyl-Tn epitopes is achieved.



PREPARATION OF  $\beta$ -HYDROXYHYDROPEROXIDES BY PHOTO-OXYGENATION OF ALLYLIC ALCOHOLS AND THEIR ELABORATION INTO 1,2,4-TRIOXANES

Chandan Singh  
Medicinal Chemistry Division, Central Drug  
Research Institute, Lucknow-226001, India



BORON TRIFLUORIDE PROMOTED CLEAVAGE OF BENZYL CARBAMATES

D. Subhas Bose and David E. Thurston<sup>\*</sup>  
Division of Medicinal Chemistry,  
School of Pharmacy and Biomedical Sciences,  
Portsmouth Polytechnic, Park Building,  
King Henry I Street, Portsmouth, Hants. PO1 2DZ, UK.

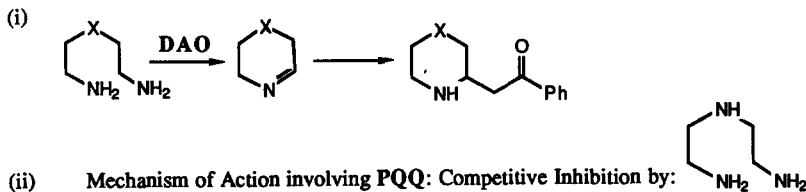


A new versatile approach to the removal of benzyl carbamates by reaction with  $BF_3 \cdot OEt_2$  - EtSH at room temperature is described.

$R^1, R^2 = H, \text{ alkyl, aryl}$

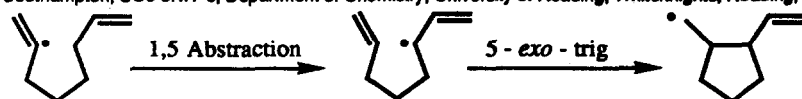
Pea-Seedling Diamine Oxidase:  
Applications in Synthesis and Evidence Relating to Its Mechanism of Action

John E. Cragg, Richard B. Herbert, and Mashupye M. Kgaphola, School of Chemistry, The University  
Leeds LS2 9JT



1,5 Allylic Abstraction, Cyclisation : A New Route To Five Membered Carbocycles

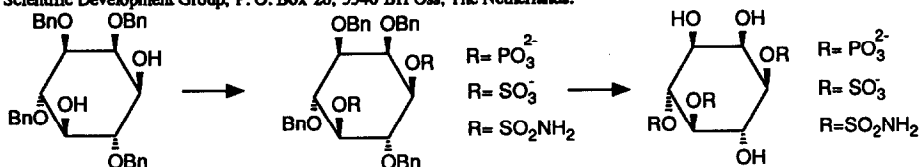
Alan D. Borthwick<sup>a</sup> Stephen Caddick<sup>b</sup> and Philip J. Parsons<sup>c</sup> <sup>a</sup> Department of Chemistry, Glaxo Group Research Ltd. Greenford Road, Greenford, Middlesex, UB6 0HE <sup>b</sup> Department of Chemistry, University of Southampton, Highfield, Southampton, SO9 5NH <sup>c</sup> Department of Chemistry, University of Reading, Whiteknights, Reading, RG6 2AD



**TOTAL SYNTHESIS OF NEW 1,5-BISSUBSTITUTED *myo*-INOSITOL DERIVATIVES.  
SYNTHESIS OF D-*myo*-INOSITOL 1,5-BISPHOSPHATE, 3,5-BISPHOSPHATE AND OF  
*rac*. 1,5-BISSULPHATED AND 1,5-BIS-SULPHAMOYLATED ISOSTERIC ANALOGUES**

Pieter Westerduin, Henrica A. M. Willems and Constant A. A. van Boeckel

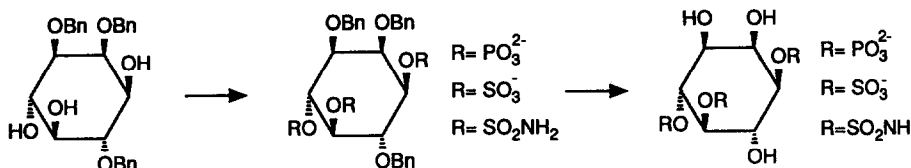
Alkzo Pharma, Organon Scientific Development Group, P. O. Box 20, 5340 BH Oss, The Netherlands.



**SYNTHESIS OF 1,4,5-TRISSULPHATED AND 1,4,5-TRISSULPHAMOYLATED  
*myo*-INOSITOLS: ISOSTERIC *myo*-INOSITOL 1,4,5-TRISPHOSPHATE ANALOGUES**

Pieter Westerduin, Henrica A. M. Willems and Constant A. A. van Boeckel

Alkzo Pharma, Organon Scientific Development Group, P. O. Box 20, 5340 BH Oss, The Netherlands.

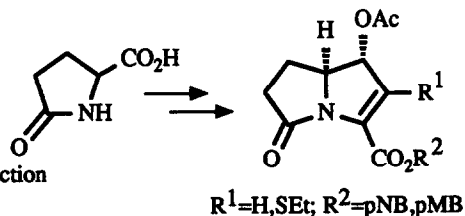


**SYNTHESIS OF  $\gamma$ -LACTAM ANALOGUES OF 1-ACETOXY  
CARBAPENEM DERIVATIVES**

S. Coulton\*, I. François and R. Southgate

SmithKline Beecham Pharmaceuticals, Research Division,  
Brockham Park, Betchworth, Surrey, RH3 7AJ, UK.

The syntheses of the bicyclic  $\gamma$ -lactam esters from *dl*-pyroglutamic acid are described. Attempted deprotection to provide the free carboxylic acids resulted in degradation.



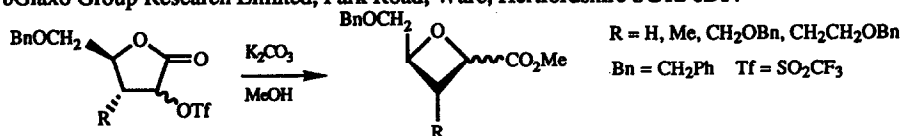
**RING CONTRACTION OF 3-DEOXY-2-O-TRIFLUOROMETHANE-  
SULPHONATES OF  $\alpha$ -HYDROXY- $\gamma$ -LACTONES TO OXETANES**

D.R.Witty, G.W.J.Fleet, S. Choi, K.Vogt, F.X.Wilson, Y. Wang, R.Storer,<sup>a</sup> P.L.Myers,<sup>a</sup> C.J.Wallis<sup>b</sup>

Dyson Perrins Laboratory, Oxford University, South Parks Road, Oxford OX1 3QY.

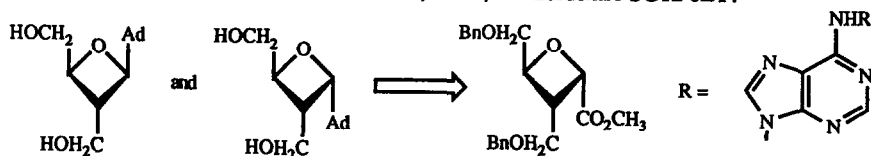
<sup>a</sup>Glaxo Group Research Limited, Greenford Road, Greenford, Middlesex UB6 0HE.

<sup>b</sup>Glaxo Group Research Limited, Park Road, Ware, Hertfordshire SG12 0DP.



## SYNTHESIS OF OXETANOCIN

F.X.Wilson, G.W.J.Fleet, K.Vogt, Y. Wang, D.R.Witty, S. Choi, R.Storer,<sup>a</sup> P.L.Myers,<sup>a</sup> C.J.Wallis<sup>b</sup>  
 Dyson Perrins Laboratory, Oxford University, South Parks Road, Oxford OX1 3QY.  
<sup>a</sup>Glaxo Group Research Limited, Greenford Road, Greenford, Middlesex UB6 0HE.  
<sup>b</sup>Glaxo Group Research Limited, Park Road, Ware, Hertfordshire SG12 0DP.



## REACTIVITY OF ACYLSILANE PHENYLHYDRAZONES WITH PHOSPHORUS TRICHLORIDE

Giuseppe Bartoli<sup>a</sup>, Marcella Bosco<sup>b</sup> and Renato Dalpozzo<sup>b</sup>,  
 Enrico Marcantoni<sup>a</sup>  
 a. Dipartimento di Scienze Chimiche, via S. Agostino 1, I-  
 62032 Camerino (Mc), Italy  
 b. Dipartimento di Chimica Organica 'A. Mangini', viale  
 Risorgimento 4, I-40136 Bologna, Italy

Nitriles are obtained from reaction of acyltrimethylsilane phenylhydrazones with phosphorus trichloride. Evidences of the reaction pathway are reported.

