

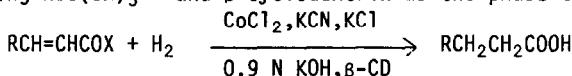
*Tetrahedron Lett.* 1990, 31, 1941

**$\beta$ -CYCLODEXTRIN AND HYDRIDOPENTACYANOCOBALTATE CATALYZED SELECTIVE HYDROGENATION OF  $\alpha, \beta$ -UNSATURATED ACIDS AND THEIR DERIVATIVES**

Jong-Tae Lee and Howard Alper\*

Ottawa-Carleton Chemistry Institute, Dept. of Chemistry, Univ. of Ottawa Ottawa, Ont. K1N6N5

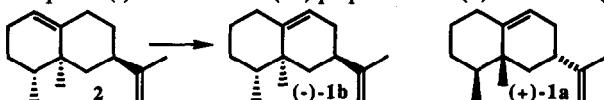
The double bond of  $\alpha, \beta$ -unsaturated carbonyls and nitriles can be reduced in good to excellent yields using  $\text{HCo}(\text{CN})_5$  and  $\beta$ -cyclodextrin as the phase transfer agent.

*Tetrahedron Lett.* 1990, 31, 1943

**PREPARATION OF (-)-ARISTOLOCHENE FROM (+)-VALEN-CENE: ABSOLUTE CONFIGURATION OF (+)-ARISTOLO-CHENE FROM *ASPERGILLUS TERREUS*.**

David E. Cane,\* Edward J. Salaski, and P. C. Prabhakaran, Department of Chemistry, Brown University, Providence, Rhode Island 02912 USA

The absolute configuration of (+)-aristolochene (**1a**), isolated from *Aspergillus terreus*, has been established by direct comparison with a sample of (-)-aristolochene (**1b**) prepared from (+)-valencene (**2**).

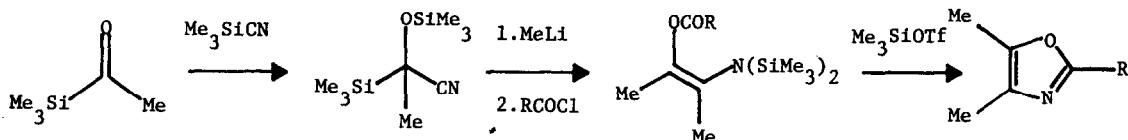
*Tetrahedron Lett.* 1990, 31, 1945

**OXAZOLES FROM  $\beta$ -ACYLOXY-N,N-BIS(TRIMETHYLSILYL)ENAMINES**

Robert F. Cunico\* and Chia P. Kuan

Department of Chemistry, Northern Illinois University, DeKalb, Illinois 60115

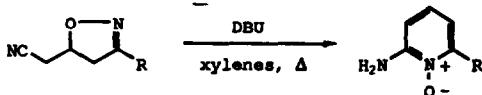
Acetyltrimethylsilane is converted into 2-substituted-4,5-dimethyloxazoles.

*Tetrahedron Lett.* 1990, 31, 1949

**BASE CATALYZED REARRANGEMENT OF 5-CYANOMETHYL-2-ISOXAZOLINES; NOVEL PATHWAY FOR THE FORMATION OF 2-AMINOPYRIDINE N-OXIDES**

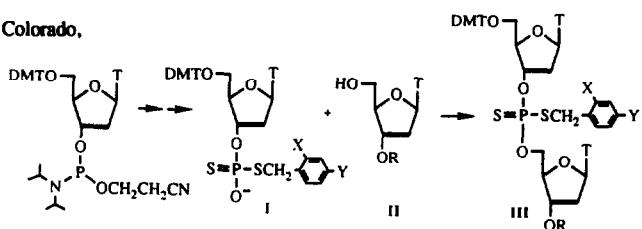
A. W. Chucholowski\* and S. Uhlendorf

Treatment of **1** with catalytic amounts of DBU in refluxing xylenes gave 2-aminopyridine N-oxide **2**.



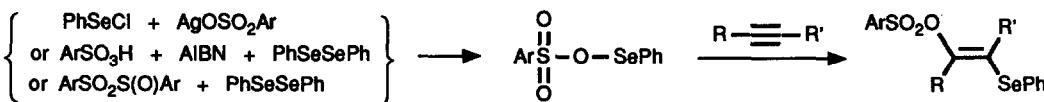
SYNTHESIS OF DINUCLEOSIDE AND DINUCLEOTIDE PHOSPHORODITHIOATES VIA A PHOSPHOTRIESTER APPROACH  
 Eric K. Yau, Yun-Xi Ma, and Marvin H. Caruthers\*  
 Department of Chemistry and Biochemistry, University of Colorado,  
 Boulder, CO 80309-0215, USA

Chemoselective activation of the oxygen atom at the phosphorus center of I with TPSCl and 1-methyl-imidazole, when condensed with II, gave excellent yields of the phosphorodithioate dimers III.



BENZENESELENENYL p-TOLUENESULFONATE: PREPARATION AND ELECTROPHILIC ADDITION TO ACETYLENES

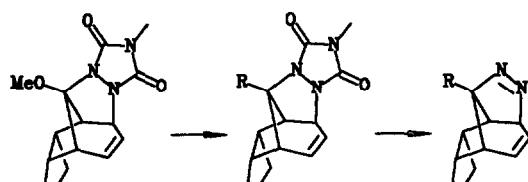
Thomas G. Back\* and K.Raman Muralidharan  
 Department of Chemistry, University of Calgary, Calgary, AB, Canada, T2N 1N4



METHOXY AS A REMOVABLE ACTIVATING GROUP IN THE TRIAZOLINEDIONE REARRANGEMENT ROUTE TO AZO COMPOUNDS

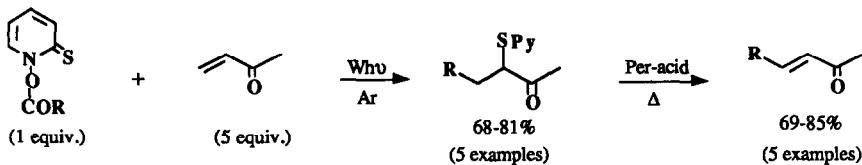
John Dover and Robert S. Sheridan  
 University of Nevada, Reno, Nevada 89557

A methoxy group increases the yield of MTAD additions to aromatic meta-photoadducts, and can conveniently be replaced by other substituents.



FURTHER STUDIES ON CARBON-CARBON BOND FORMATION BASED ON THE RADICAL REACTIONS OF ACYL DERIVATIVES OF N-HYDROXY-2-THIOPYRIDONE

Derek H.R. Barton\* and Jadab C. Sarma  
 Department of Chemistry, Texas A&M University, College Station, Texas 77843, U.S.A.



## AN EFFICIENT CONVERSION OF NITRILES TO AMIDINES

Ravi S. Garigipati

Department of Medicinal Chemistry, Smith Kline & French Laboratories  
Swedeland, PA 19479

An efficient one step conversion of nitriles to amidines is described.

This method is also applicable to the preparation of guanidines.



## PALMOSALIDES A-C, NEW SESQUITERPENOIDS FROM THE INDIAN OCEAN

TELESTACEAN OCTOCORAL *COELOGORGIA PALMOSA*

David F. Wiemer, Loretta K. Wolfe and William Fenical\*

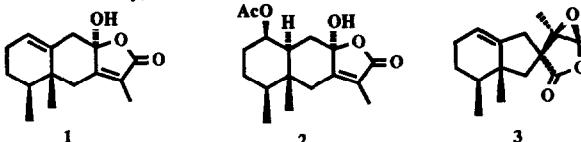
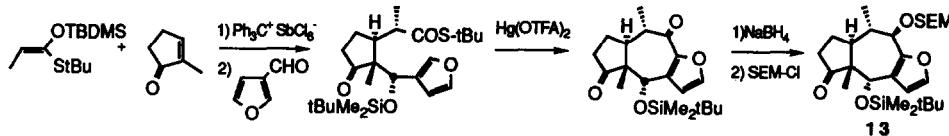
Scripps Institution of Oceanography, University of California, San Diego, La Jolla, CA 92093-0228

Scott A. Strobel and Jon Clardy\*

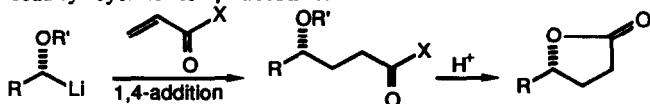
Department of Chemistry-Baker Laboratory, Cornell University, Ithaca, NY 14853-1301

The structures of palmosalides A-C (1-3)

are described on the basis of NMR and X-ray experiments.

FURANS IN SYNTHESIS 10.<sup>1</sup> AN EFFICIENT CONSTRUCTION OF THE BICYCLO[5.3.0]DECANE RING SYSTEM OF FASTIGILIN-CSteven P. Tanis \*<sup>a</sup>, Mark C. McMills \*<sup>b</sup>, Terrence A. Scabill <sup>c</sup>, and David A. Kloosterman <sup>c</sup><sup>a</sup>) Metabolic Diseases Research, The Upjohn Co., Kalamazoo, MI 49001; <sup>b</sup>) Department of Chemistry, Columbia University, New York, NY 10027; <sup>c</sup>) Physical and Analytical Chemistry, The Upjohn Co., Kalamazoo, MI 49001AN EXPEDITIOUS ENANTIOSELECTIVE SYNTHESIS OF  $\gamma$ -LACTONES

J. Michael Chong and Eduardo K. Mar

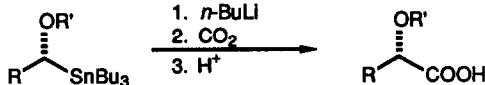
Guelph-Waterloo Centre for Graduate Work in Chemistry, Department of Chemistry,  
University of Waterloo, Waterloo, Ontario, CANADA N2L 3G1 $\alpha$ -Alkoxyorganolithium reagents add to  $\alpha,\beta$ -unsaturated trimethylhydrazides to afford products that readily cyclize to  $\gamma$ -lactones.

**PREPARATION OF ENANTIOMERICALLY ENRICHED  
 $\alpha$ -HYDROXY ACID DERIVATIVES FROM  $\alpha$ -ALKOXY-  
 ORGANOSTANNANES**

Philip C.-M. Chan and J. Michael Chong\*

Guelph-Waterloo Centre for Graduate Work in Chemistry, Department of Chemistry,  
 University of Waterloo, Waterloo, Ontario, CANADA N2L 3G1

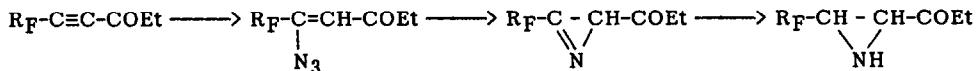
$\alpha$ -Alkoxy acids of defined absolute stereochemistry may be prepared from  $\alpha$ -alkoxyorganostannanes.



**STABILITE ET REACTIVITE ANORMALES DES  
 PERFLUOROALKYL AZIRINES ET AZIRIDINES**

Mustapha Haddach, Raphaël Pastor and Jean G. Riess\*

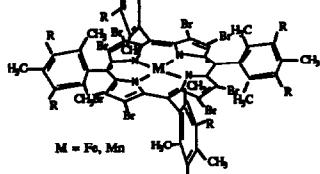
Laboratoire de Chimie Moléculaire, Unité de Recherche Associée au CNRS,  
 Université de Nice-Sophia Antipolis, Parc Valrose, 06034 Nice, France.



The  $\text{R}_F$  chain induces particular reactivity and stability in azirinic and aziridinic rings.

**HIGHLY SELECTIVE BROMINATION OF TETRAAMESITYLPORPHYRIN :  
 AN EASY ACCESS TO ROBUST METALLOPORPHYRINS, M-BigTMF AND M-BigTMPS.  
 EXAMPLES OF APPLICATION IN CATALYTIC OXYGENATION AND OXIDATION REACTIONS.**

Pascal Hoffmann, Gilles Labat, Anne Robert and Bernard Meunier\*  
 Laboratoire de Chimie de Coordination du CNRS, 205 route de Narbonne, 31077 Toulouse cedex, France.



Associated to oxygen donors,  $\text{KHSO}_5$  or MMPP, these complexes are efficient catalysts for :

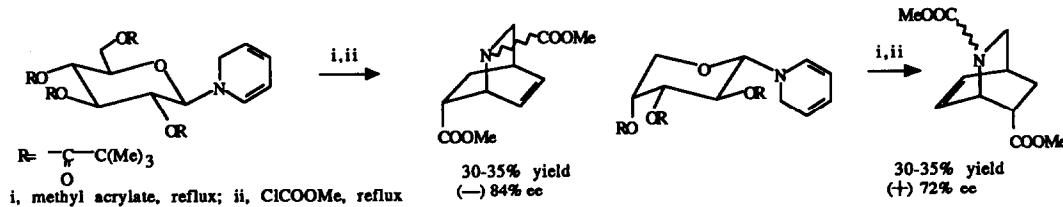
(i) epoxidation or hydroxylation, when  $\text{R}=\text{H}$   
 (catalysts soluble in organic solvents)

(ii) oxidation of lignin models, when  $\text{R}=\text{SO}_3\text{Na}$   
 (water-soluble catalysts)

**STEREOSELECTIVE CYCLOADDITION OF *N*-GLYCOPYRANOSYL  
 1,2-DIHYDROPYRIDINES WITH METHYL ACRYLATE.**

C. Marazano,\* S. Yannic, Y. Genisson, M. Mehmandoust and B.C. Das

Institut de Chimie des substances naturelles, C.N.R.S., 91198 Gif-sur-Yvette Cedex, France.



An approach to vectorisation of pharmacologically active molecules :  
The covalent binding of Leu-enkephalin to a modified  $\beta$ -cyclodextrin.

H. Parrot-Lopez <sup>a</sup>, F. Djedaini <sup>b</sup>, B. Perly <sup>b</sup>, A.W. Coleman <sup>c</sup>, H. Galons <sup>a</sup>, M. Miocque <sup>c</sup>

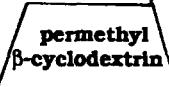
NH<sub>3</sub><sup>+</sup>-Tyr-Gly-Phe-Leu

a- Laboratoire de Chimie Organique 3, Université de Paris V, F-75006 Paris, France

b- Service de Chimie Moléculaire, Centre d'Etudes Nucléaires de Saclay, F-91191 Gif sur Yvette, France

c- Unité Associée CNRS 496, Université de Paris-Sud, F-92260 Chatenay Malabry, France

Leu-enkephalin has been grafted on permethyl  $\beta$ -cyclodextrin and the resulting adduct  
fully characterized by one and two-dimensional proton NMR.

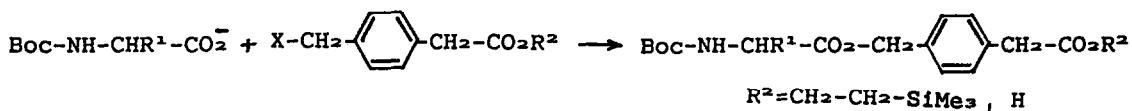


### IMPROVED SYNTHESIS OF PREFORMED Boc-AMINOACID-

BRIDGING GROUPS FOR USE IN SOLID PHASE PEPTIDE

SYNTHESIS - Calmes, Cavelier, Daunis, Elyacoubi and Jacquier

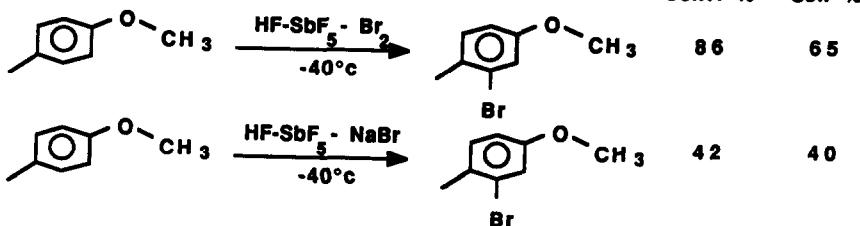
URA 468, Place E. Bataillon, 34095 Montpellier Cedex 5, France



### ELECTROPHILIC BROMINATION OF PHENOL ETHERS IN SUPERACID SOLUTION USING ALKALI BROMIDE

Ghassan Cherry, Jean-Christophe Culmann and Jean Sommer\*

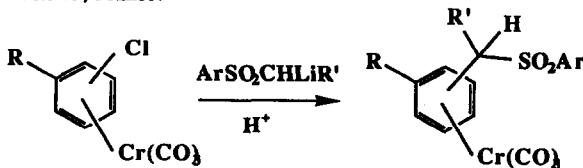
UA CNRS 469, Département de Chimie, Université Louis Pasteur,  
rue Blaise Pascal, F-67000 Strasbourg, France



Reaction of chlorotoluemetricarbonylchromium complexes with  $\alpha$ -sulfonyl-carbanions

R.KHOURZOM, F.ROSE-MUNCH and E.ROSE

Université P. et M. Curie, Laboratoire de Chimie Organique, 4 Place Jussieu, Tour 44-45,  
75252 Paris Cedex 05, France.

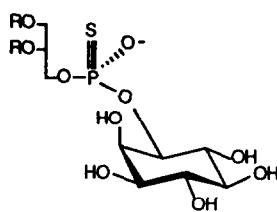


THE SYNTHESIS OF DIASTEREOMERS OF PHOSPHOROTHIOATE ANALOGUE OF DIPALMITOYLPHOSPHATIDYLINOSITOL

Tetrahedron Lett. 1990, 31, 2015

Grzegorz M. Salamończyk and Karol S. Bruzik  
Centre of Molecular and Macromolecular Studies, Polish Academy of Sciences, Sienkiewicza 112, 90-362 Łódź, Poland

Diastereomers of 1,2-dipalmitoyl-sn-glycero-3-thiophospho-1'-myo-inositol (DPPSI) has been synthesized via the phosphorylation method and chromatographic separation of phosphorothioate triesters.

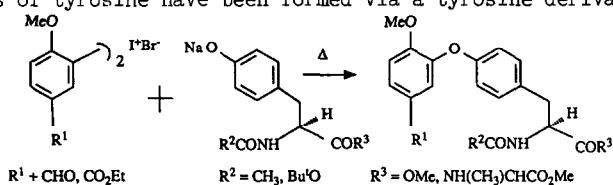


Synthesis of Diaryl Ethers from Tyrosine Derivatives

Michael J. Crimmin\* and Allan G. Brown\*

Beecham Pharmaceuticals, Brockham Park, Betchworth, Surrey, RH3 7AJ, England.

Diaryl ethers of tyrosine have been formed via a tyrosine derivative and an aryl iodonium salt.



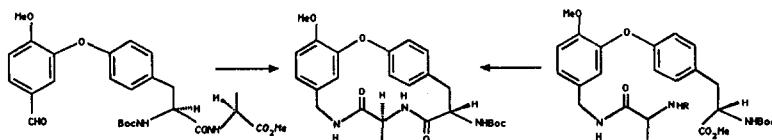
Tetrahedron Lett. 1990, 31, 2017

Synthesis of Phenolicily Linked Cyclic Peptides

Michael J. Crimmin\* and Allan G. Brown\*

Beecham Pharmaceuticals, Brockham Park, Betchworth, Surrey, RH3 7AJ, England.

Cyclisation of a diaryl ether containing an  $\alpha, \omega$ -amino acid residue gave cyclic peptides related to the vancomycin binding pocket.



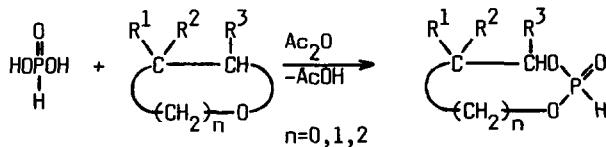
Tetrahedron Lett. 1990, 31, 2021

NEW METHOD OF ALKYLENE PHOSPHONATE PREPARATION

Tetrahedron Lett. 1990, 31, 2025

Pawel Kłosiński, Center of Molecular and Macromolecular Studies  
Polish Academy of Sciences, 90-363 Łódź, Sienkiewicza 112, Poland

Reaction of phosphonic acid with cyclic ethers afforded in the presence of  $\text{Ac}_2\text{O}$  the corresponding alkylene phosphonates in 20-70% yield.

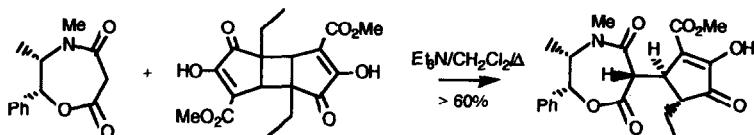


**ASYMMETRIC TOTAL SYNTHESIS FROM CYCLOPENTENE-1,2-DIONES:  
Characterisation of a Diastereomerically Pure Michael Adduct**

Richard T. Brown\* and Mark J. Ford

Chemistry Department, The University, Manchester M13 9PL, U.K.

In a reversible reaction the adduct has been isolated as a single diastereomer and the induced absolute chirality assigned from n.O.e. experiments.

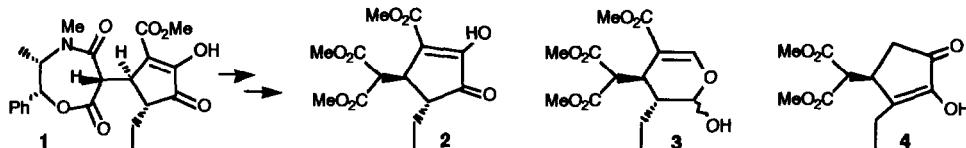


**ASYMMETRIC TOTAL SYNTHESIS OF ALKALOIDS AND SECO-IRIDIOIDS**

Richard T. Brown\* and Mark J. Ford

Chemistry Department, The University, Manchester M13 9PL, U.K.

The chiral Michael adduct 1 has been converted to pure enantiomers (>96% e.e.) of known synthetic precursors 2-4 via a novel exchange which recovers the chiral auxiliary.



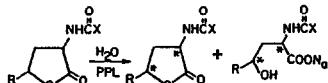
**LIPASE CATALYSED HYDROLYSIS OF  $\alpha$ -SUBSTITUTED  
 $\alpha$ -AMINOBUTYROLACTONES**

A.L. Gutman\*, K. Zuobi and E. Guibe-Jampel\*

Department of Chemistry, Technion, Haifa 32000, Israel

Laboratoire des Carbocycles, Université de Paris-Sud, 91405 Orsay, France

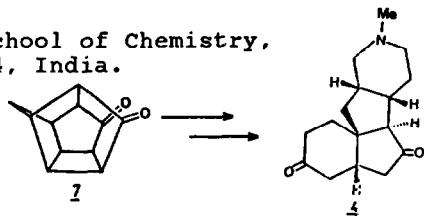
Enzyme catalysed stereospecific hydrolysis of  $\alpha$ -aminobutyrolactones.



**A STRATEGY FOR THE CONSTRUCTION OF NOVEL TETRACYCLIC  
LYCOPODIUM ALKALOIDS OF PANICULATINE- AND MAGELLANINE-TYPE**

Goverdhan Mehta\* and M. Sreenivasa Reddy, School of Chemistry,  
University of Hyderabad, Hyderabad - 500 134, India.

Tetracyclic framework 4 present in paniculatine-type lycopodium alkaloids has been synthesised from the readily available dione 7 via a novel flexible strategy.

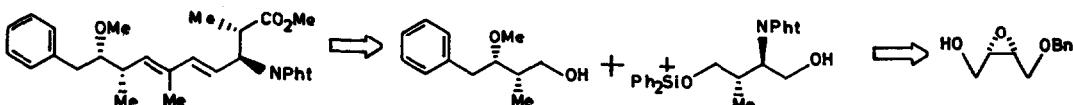


**TOTAL SYNTHESIS OF N-PHTHALOYL ADDA METHYL ESTER : ALL STEREOCENTERS ORIGINATING FROM A SINGLE CHIRAL EPOXYALCOHOL**

T.K. Chakraborty and S.P. Joshi

Indian Institute of Chemical Technology, Hyderabad 500 007, India

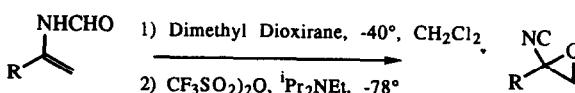
Selective ring opening of (2S,3R)-epoxide of 4-benzyloxy-cis-2-buten-1-ol either at 2- or 3-position ensures stereospecific construction of all the chiral centers of Adda.



**THE PREPARATION OF EPOXY ISONITRILES (ISOCYANOOXIRANES)**

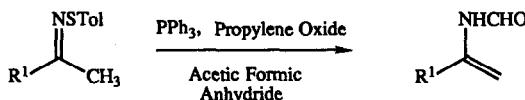
J. E. Baldwin,\* and I. A. O'Neil, Dyson Perrins Laboratory and the Oxford Centre for Molecular Sciences, South Parks Rd, Oxford OX1 3QY. U.K.

Treatment of vinyl formamides with dimethyl dioxirane at -40°C, followed by addition of trifluoromethanesulphonic (triflic) anhydride and Hunig's base gives corresponding epoxy isonitrile. This represents the first ever general synthesis of this unusual functional group.



**A NEW AND MILD PROCEDURE FOR THE PREPARATION OF VINYL FORMAMIDES FROM THIOOXIMES**

J.E.Baldwin\*, D.J.Aldous and I.A.O'Neil, Dyson Perrins Laboratory and the Oxford Centre for Molecular Sciences, South Parks Rd, Oxford OX1 3QY. U.K.

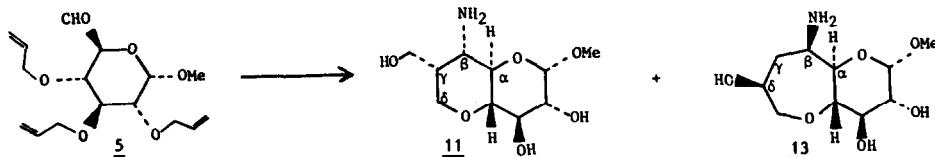


Treatment of thioximes with triphenylphosphine, acetic formic anhydride and propylene oxide in dichloromethane at room temperature gives the corresponding vinyl formamide in good yield under essentially neutral conditions.

**INTRAMOLECULAR 1,3-DIPOLAR ADDITIONS IN 4-O-ALLYL PYRANOSE 6-NITRONES : AN APPROACH TO CHIRAL PYRANO-PYRANS AND PYRANO-OXEPANS**

P. M. Collins\*, M.S. Ashwood and H. Eder, Chemistry Department, Birkbeck College, Gordon House, 29 Gordon Square, London WC1E 0PP, UK

S.H.B. Wright<sup>1</sup> and D.J. Kennedy<sup>1</sup>, Merck Sharp and Dohme Research Laboratories, Hertford Road, Hoddesdon, Herts. EN11 9BU, UK



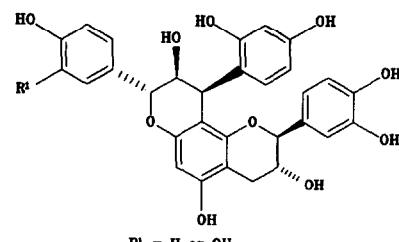
Treatment of the easily prepared 6-aldehyde-glucopyranose allyl ether (5) with N-benzylhydroxylamine gave a nitrone, which underwent a 1,3-dipolar addition to its 4-O-allyl group giving after deprotection and hydrogenolysis the chiral pyrano-pyran (11) and the pyrano-oxepan (13).

THE FIRST NATURAL CONDENSED TANNINS WITH (-)-CATECHIN TERMINAL UNITS.

Petrus J. Steynberg, Johann F.W. Burger, Barend C.B. Bezuidenhoudt, Jan P. Steynberg, Martha S. van Dyk, and Daneel Ferreira\*. Department of Chemistry, University of the Orange Free State, P.O. Box 339, Bloemfontein, 9300 South Africa

Two functionalized tetrahydropyran[2,3-*h*]chromenes, representing the first naturally occurring condensed tannins with (2*S*,3*R*)-2,3-*trans*-(-)-catechin 'terminal' moieties, are described.

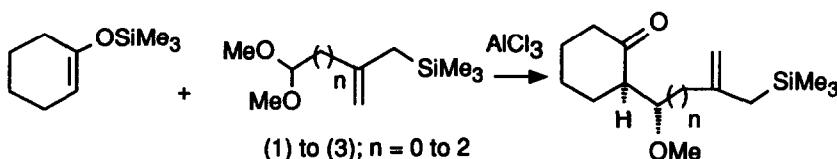
*Tetrahedron Lett.* 1990, 31, 2059



*Tetrahedron Lett.* 1990, 31, 2063

SELECTIVITY OF BIFUNCTIONAL ANNULATING REAGENTS:

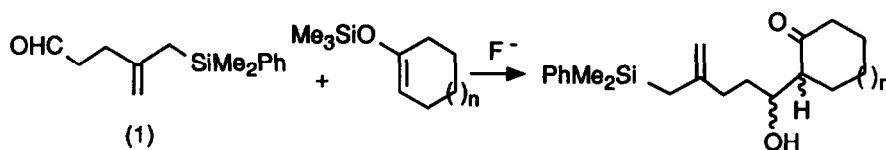
ADDITIONAL RULES FOR RING CLOSURE. Thomas V.Lee\*, Frances S.Roden and Helena T-L.Yeoh. Department of Organic Chemistry, The University, Bristol, BS8 1TS, England. Studies on 1-3 lead us to suggest that similar descriptors as have been used for predicting intramolecular aldol cyclisations, could be used for intramolecular cyclisations of allylic species.



*Tetrahedron Lett.* 1990, 31, 2067

CHEMOSELECTIVE REACTION OF BIFUNCTIONAL ALDEHYDO ALLYLSILANES

Thomas V.Lee\* and Frances S.Roden Department of Chemistry, The University, Bristol BS8 1TS, England. Aldehydes, such as 1, are only the second class of electrophiles found to undergo chemoselective intermolecular reaction with enolsilanes, as opposed to intramolecular attack by the allylsilane.



*Tetrahedron Lett.* 1990, 31, 2069

ARYLATIVE AMINATION OF ALDEHYDES PROMOTED BY AQUEOUS TITANIUM TRICHLORIDE.

Angelo Clerici and Ombretta Porta

Dipartimento di Chimica del Politecnico, Pza L. da Vinci 32, 20133 Milano, Italy

