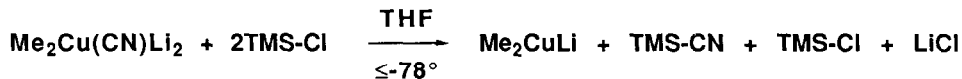


GRAPHICAL ABSTRACTS

UNEXPECTED AFFECTS OF $\text{Me}_3\text{Si-X}$ ON REACTIONS OF HIGHER ORDER CYANOCUPRATES

Bruce H. Lipshutz*, Edmund L. Ellsworth, Teruna J. Siahaan, and Ata Shirazi
Department of Chemistry, University of California, Santa Barbara, CA 93106

Both chemical and spectroscopic experiments confirm that $\text{R}_3\text{Si-X}$ significantly alters the composition of higher order cuprates prior to introduction of a substrate.



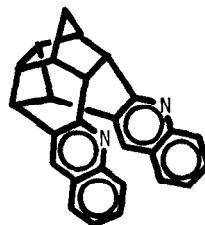
Tetrahedron Lett. 29, 6677 (1988)

2,3:6,7-Bis(2',3'-quinolino)pentacyclo[6.5.0.0^{4,12}.-0^{5,10}.0^{9,13}]tridecane

Alan P. Marchand*, Pendri Annapurna, Dept. of Chemistry, University of North Texas, Denton, TX 76203-5068

J. L. Flippen-Anderson*, R. Gilardi, and C. George Naval Research Laboratory, Laboratory for the Structure of Matter, Code 6030, Washington, D. C. 20375-5000

Synthesis and X-ray crystal structure of the title compound are presented.

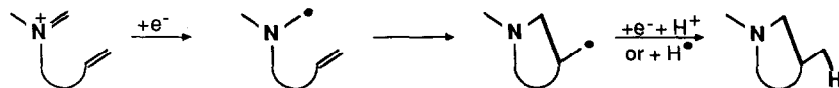


Tetrahedron Lett. 29, 6681 (1988)

APPLICATION OF REDUCTIVE, SINGLE ELECTRON TRANSFER PROCESSES TO THE GENERATION AND CYCLIZATION OF ω -UNSATURATED α -AMINO RADICALS

Stephen F. Martin*, Chih-Ping Yang, William L. Laswell, and Heinrich Rüeger
Department of Chemistry, The University of Texas, Austin, TX 78712

Reduction of ω -unsaturated iminium salts by single electron transfer in the presence of camphor-sulfonic acid generates ω -unsaturated- α -amino radicals that cyclize to deliver nitrogen heterocycles.

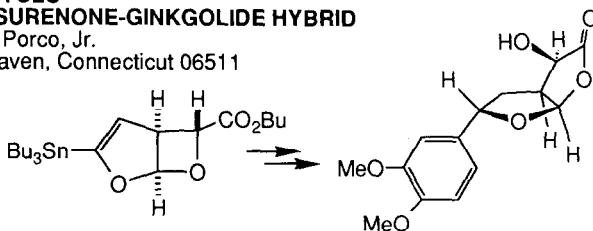


Tetrahedron Lett. 29, 6685 (1988)

ON THE USE OF UNSYMMETRICALLY SUBSTITUTED FURANS IN THE FURAN-CARBONYL PHOTOCYCLOADDITION REACTION: SYNTHESIS OF A KADSURENONE-GINKGOLIDE HYBRID

Stuart L. Schreiber, Didier Desmaele and John A. Porco, Jr.
Department of Chemistry, Yale University, New Haven, Connecticut 06511

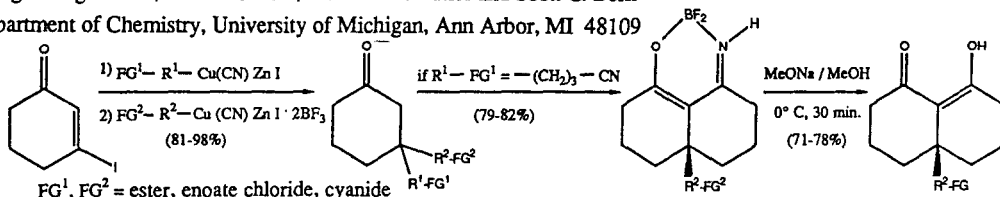
The photochemical cycloaddition of aldehydes to silyl and stannyl substituted furans has been investigated. An application of this method to a short synthesis of a kadsurenone-ginkgolide hybrid is described.



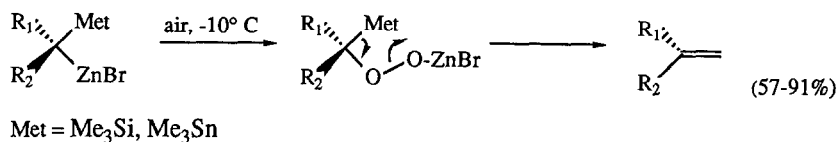
Tetrahedron Lett. 29, 6689 (1988)

Tetrahedron Lett., 29, 6693 (1988)

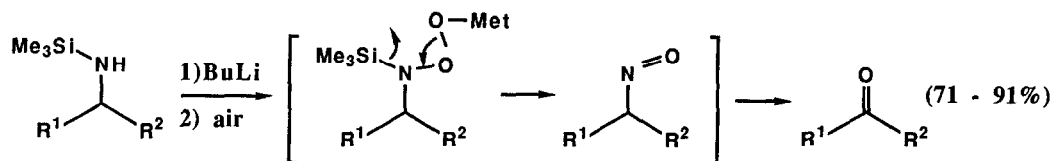
1,4-Additions of the Highly Functionalized Copper Reagents $\text{RCu}(\text{CN})\text{ZnI}$
 2 BF_3 to Trisubstituted Enones. A New BF_3 Promoted Cyclization Reaction.
 Ming Chang P. Yeh, Paul Knochel*, William M. Butler and Scott C. Berk
 Department of Chemistry, University of Michigan, Ann Arbor, MI 48109

Tetrahedron Lett., 29, 6697 (1988)

A Mild Oxidation of 1,1-Diorganometallics to Ketones and Aldehydes.
 A New Stereoselective Approach to Aldol Products Part I
 Paul Knochel*, Chaodong Xiao, Ming Chang P. Yeh
 Department of Chemistry, The University of Michigan, Ann Arbor, MI 48109

Tetrahedron Lett., 29, 6701 (1988)

A New Mild Oxidation of Amines to Aldehydes and Ketones.
 Part II
 Huai Gu Chen and Paul Knochel* Department of Chemistry, The University of
 Michigan, Ann Arbor, Michigan 48109

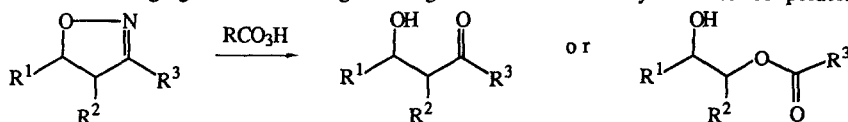
Tetrahedron Lett., 29, 6703 (1988)

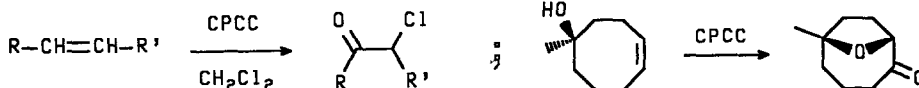
OXIDATION OF ISOXAZOLINES BY PERACIDS - A USEFUL ROUTE
 TO β -HYDROXY KETONES AND ACYLATED DIOLS

Pyeong-uk Park and Alan P. Kozikowski*

Department of Chemistry, University of Pittsburgh, Chevron Science Center, Pittsburgh, PA 15260

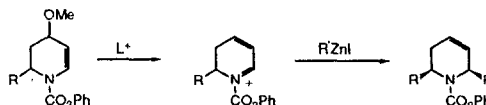
A method for bringing about the ring cleavage of isoxazolines by the use of peracids is described.



Tetrahedron Lett. 29, 6707 (1988)**OXYCHLORINATION OF ALKENES BY CHLOROCHROMATE REAGENTS: A FACILE PREPARATION OF α -CHLOROKETONES, AND COMPETITION BY SUBSTITUENT-DIRECTED OXIDATION.**Angel F. Guerrero, Ho-jin Kim, Matthew F. Schlecht*
Department of Chemistry, Polytechnic University, 333 Jay Street, Brooklyn, NY 11201, U.S.A.*Cyanopyridinium chlorochromate (CPCC) converts alkenes to α -chloroketones, but a hydroxyl substituent in the substrate promotes substituent-directed oxidative cyclization.*Tetrahedron Lett. 29, 6711 (1988)**THE ADDITION OF ALKYLZINC IODIDES TO 1-(PHENOXY-CARBONYL)-2,3-DIHYDROPYRIDINIUM SALTS. A SYNTHESIS OF 2-ALKYL- Δ^3 -PIPERIDINES.**

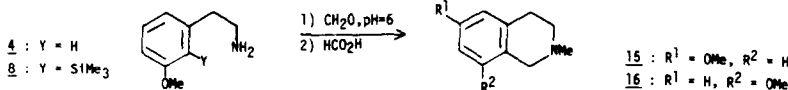
Daniel L. Comins* and Michael A. Foley

Department of Chemistry and Biochemistry, Utah State University, Logan, Utah 84322-0300

The addition of alkylzinc iodides to 1-(phenoxy-carbonyl)-2,3-dihydropyridinium salts gives 2-alkyl-1-(phenoxy-carbonyl)- Δ^3 -piperidines.Tetrahedron Lett. 29, 6715 (1988)**REGIOSPECIFIC SYNTHESIS OF ISOQUINOLINE ALKALOIDS. USE OF ARYLSILANES IN DIRECTED PICTET-SPENGLER CYCLIZATIONS**

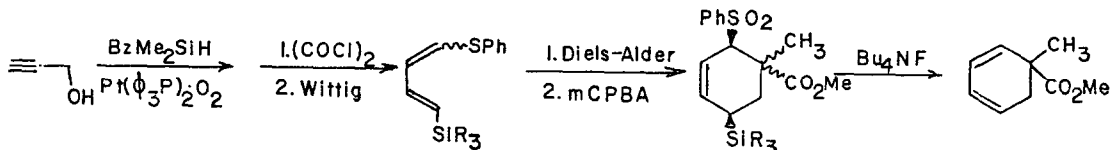
R. Bryan Miller and Tsze Tsang

Department of Chemistry, University of California, Davis, CA 95616

Use of the trimethylsilyl group (**8**) allows regiochemical control in the Pictet-Spengler cyclization to give **16**, while **4** only gave **15**.Tetrahedron Lett. 29, 6719 (1988)**The Synthesis of 1-Benzylidimethylsilyl-4-phenylthio-1,3-butadiene: A new diene-regenerable Diels-Alder Synthon.**

J. J. Pegram and C. B. Anderson*

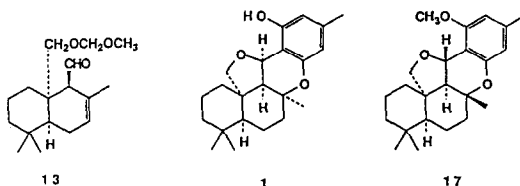
Dept. of Chemistry, University of California, Santa Barbara, California 93106, U. S. A.



SYNTHETIC STUDIES ON SICCANIN. EFFICIENT CONSTRUCTION OF THE CIS-FUSED DRIMANE UNIT AND SYNTHESIS OF ISOSICCANIN METHYL ETHER

Hsing-Jang Liu* and Brahma Ramani
Department of Chemistry, University of Alberta,
Edmonton, Alberta, Canada T6G 2G2

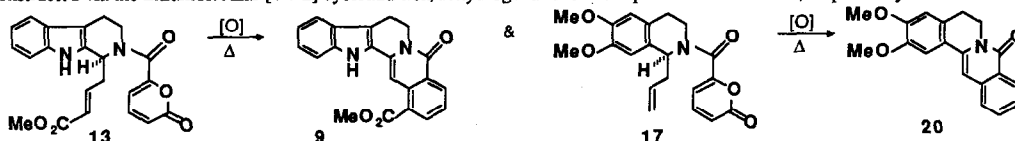
An efficient synthesis of the cis-drimane system **13** present in the antifungal antibiotic siccanin (**1**) and its conversion to isosiccanin methyl ether **17** are described.



CONCISE APPROACH TO THE AROMATIC YOHIMBOID AND PROTOBERBERINE ALKALOIDS VIA INTRAMOLECULAR DIELS-ALDER REACTIONS

Stephen F. Martin* and Leo S. Geraci
Department of Chemistry, The University of Texas, Austin, TX 78712

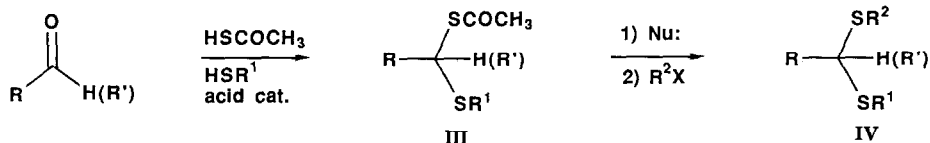
The aromatic yohimboid indole alkaloid oxogambirtannine (**9**) and the prototypical protoberberine skeleton **20** were rapidly constructed via the intramolecular [4 + 2] cycloaddition/dehydrogenations of the precursors **13** and **17**, respectively.



A NOVEL AND EFFICIENT METHOD FOR THE PREPARATION OF ASYMMETRIC DITHIOACETALS.

J.Y. Gauthier*, T. Henien, L. Lo, M. Thérien and R.N. Young*

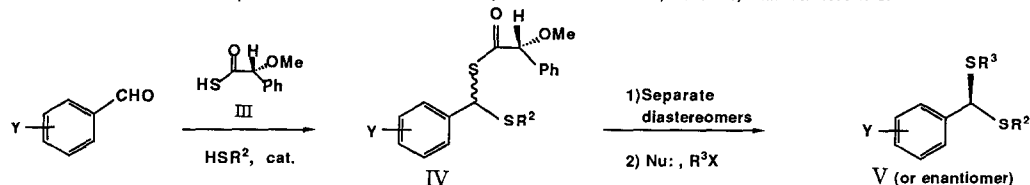
Merck Frosst Center for Therapeutic Research, P.O. Box 1005, Pointe Claire-Dorval, Québec, Canada H9R 4P8



ASYMMETRIC DITHIOACETALS II: A NOVEL AND VERSATILE METHOD FOR THE PREPARATION OF CHIRAL DITHIOACETALS.

M. Thérien*, J.Y. Gauthier and R.N. Young*.

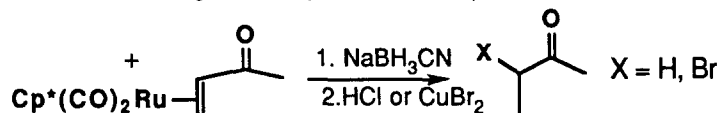
Merck Frosst Center for Therapeutic Research, P.O. Box 1005, Pointe Claire-Dorval, Québec, Canada H9R 4P8.



4,3 ADDITIONS TO α,β -UNSATURATED KETONES VIA η^2 C=C BINDING TO A RUTHENIUM COMPLEX.

Robin S. Tanke* and Robert H. Crabtree, Yale University Chemistry Department, New Haven, CT 06511

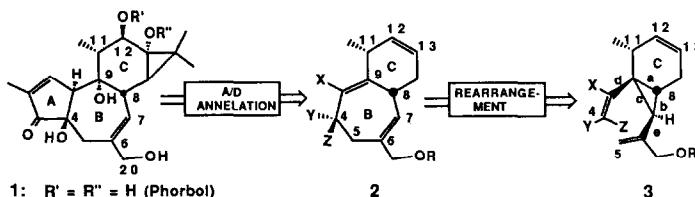
The $[\text{Cp}^*\text{Ru}(\text{CO})_2]^+$ fragment ($\text{Cp}^* = \eta^5\text{-C}_5\text{Me}_5$) binds α,β -unsaturated ketones in an η^2 C=C fashion. The resulting complex is subject to attack by H^- at the 4-position, leaving the ruthenium bound to the substrate at the 3-position. The Ru-C bond, formed in this way, can now be cleaved to give a variety of 4, 3-addition products.



STUDIES ON TUMOR PROMOTERS: V. COMPLEMENTARY 1,4-STEREOCONTROL IN PHORBOLD CYCLOHEPTENE SYNTHESIS VIA THE DIVINYLCYCLOPROPANE REARRANGEMENT

Paul A. Wender* and Katherine Brighty, Department of Chemistry, Stanford University, Stanford, CA 94305 USA

Phorbol precursors (2) with either C4, C8 stereorelationship are selectively prepared through the stereocontrolled formation and rearrangement of vinyl cyclopropyl enols, enolates, and enol ethers (3).

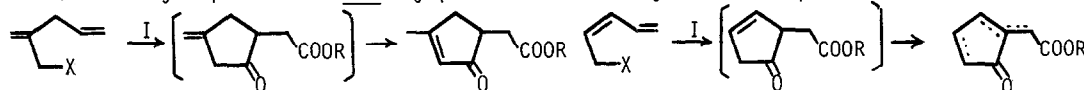


PALLADIUM-CATALYZED CYCLIC ACYLMETALATION OF ALLYLIC ELECTROPHILES AS A ROUTE TO CYCLOPENTENONE DERIVATIVES.

Ei-ichi Negishi,* Guangzhong Wu, and James M. Tour

Department of Chemistry, Purdue University, W. Lafayette, Indiana 47907, U.S.A.

Formation of cyclopentenones via acylpalladation of allylic electrophiles.

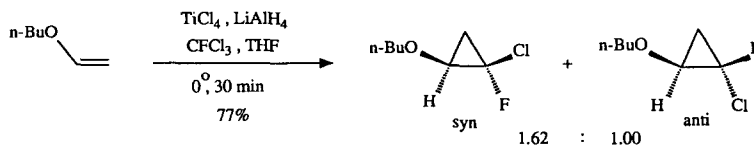


$\text{I} = \text{CO}$ (600 psi), ROH (4 eq), NEt_3 (1.5 eq), $\text{Cl}_2\text{Pd}(\text{PPh}_3)_3$ (5 mol %), $\text{CH}_3\text{CN}-\text{C}_6\text{H}_6$ (1:1), 100°C .

GENERATION OF CHLOROFLUOROCARBENE BY DEHALOGENATION OF FLUOROTRICHLOROMETHANE WITH REDUCED TITANIUM. A NEW SYNTHESIS OF 1-CHLORO-1-FLUOROCYCLOPROPANES.

William R. Dolbier, Jr.* and Conrad R. Burkholder

Department of Chemistry, University of Florida, Gainesville, Florida 32611

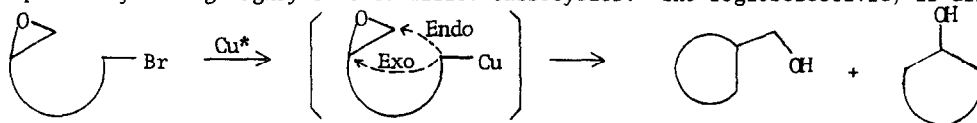


**DIRECT FORMATION OF EPOXYALKYL COPPER REAGENTS
FROM ACTIVATED COPPER AND EPOXYALKYL BROMIDES
AND THEIR INTRAMOLECULAR CYCLIZATIONS**

Tetrahedron Lett. 29, 6753 (1988)

Tse-Chong Wu and Reuben D. Rieke*,
Department of Chemistry, University of Nebraska-Lincoln, Lincoln, Nebraska 68588-0304

The intramolecular cyclization of the epoxyalkylcopper reagents via an epoxide cleavage process is described. Significantly, many functional groups can be present in the bromoepoxides yielding highly functionalized carbocycles. The regioselectivity is discussed.

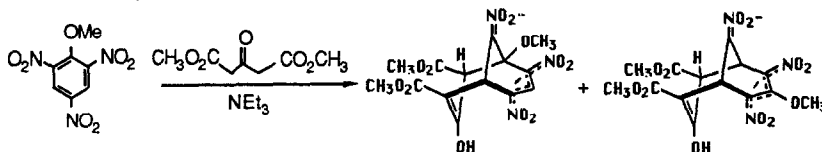


Isomeric Meta-Bridging of Electron Deficient Aromatics.

The Reaction of Trinitroanisole with 1,3-Dicarbomethoxy acetone: An X-Ray Structural Analysis of the Product.

Ruben G. Torres, Michael J. Strauss* and John L. Hubbard.
Department of Chemistry, University of Vermont, Burlington, VT 05401

Tetrahedron Lett. 29, 6757 (1988)



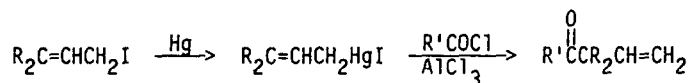
SYNTHESIS OF ALLYLIC KETONES VIA ACYLATION OF ALLYLIC MERCURIALS

Tetrahedron Lett. 29, 6761 (1988)

Richard C. Larock* and Yong-de Lu

Department of Chemistry, Iowa State University, Ames, Iowa 50011

Allylic mercurials, readily available from allylic halides and mercury(0), react with acyl chlorides and $AlCl_3$ under mild reaction conditions to afford high yields of allylic ketones.



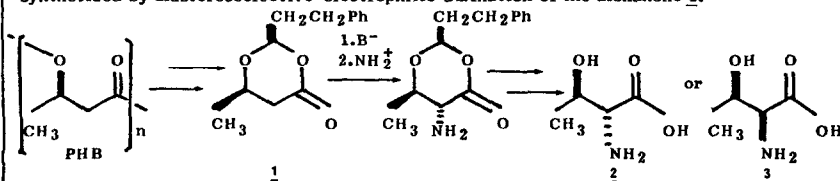
ELECTROPHILIC AMINATION :

Tetrahedron Lett. 29, 6765 (1988)

ENANTIOSELECTIVE SYNTHESIS OF D-ALLOTHREONINE AND L-THREONINE.

J.P. GENET ; S. JUGE ; S. MALLART. Laboratoire de Chimie Organique et Organométallique.
Université P & M. Curie - 8, rue Cuvier - 75005 Paris. ENSCP 11, rue P & M. Curie - 75005 Paris.

Starting from polyhydroxybutanoate (PHB). D-allothreonine **2** and L-threonine **3** are synthesized by diastereoselective electrophilic amination of the dioxanone **1**.



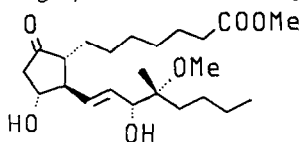
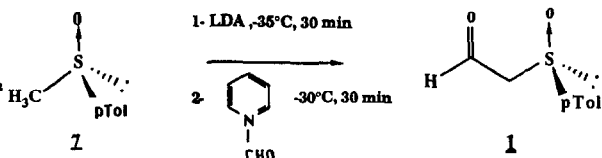
A Highly Convergent Synthesis of Mexiprostil: 16(R) 16-Methoxy 16-Methyl PGE₁ Methyl Ester

M. Kolb,* L. Van Hijfte and R. E. Ireland

Merrell Dow Research Institute, 16 rue d'Ankara, 67084 Strasbourg Cedex, France

The synthesis of optically pure mexiprostil, a PGE₁ analogue, via the three-component coupling process is described.

The required lower side chain building block is prepared stereoselectively from nerol.

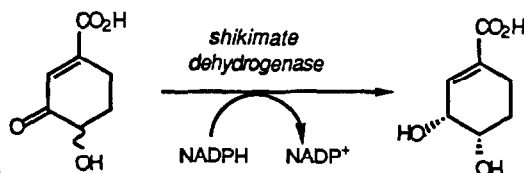
**SYNTHESIS OF OPTICALLY ACTIVE α -SULFINYLACETALDEHYDE**P. Pflieger^a, C. Mioskowski^{a*}, J.P. Salaun^b, D. Weissbart^b and F. Durst^b^a Laboratoire de Chimie Bio-organique, Université Louis Pasteur-CNRS UA 31-Faculté de Pharmacie, 74, Route du Rhin F-67401 Strasbourg Cedex, France. ^b Laboratoire d'Enzymologie Cellulaire et Moléculaire, Université Louis Pasteur-CNRS UA 1182,28, rue Goethe, F-67083 Strasbourg Cedex, France.Optically active α -sulfinylacetaldehyde is prepared by formylation of the (R)-methyl p-tolylsulfoxide anion with N-formylpiperidine.**SPECIFICITY OF E. COLI SHIKIMATE DEHYDROGENASE TOWARDS ANALOGUES OF 3-DEHYDROSHIKIMIC ACID**

T.D.H. Bugg,† C. Abell† and J.R. Cogginst††

† University Chemical Laboratory, Lensfield Road, Cambridge CB2 1EW.

†† Department of Biochemistry, University of Glasgow, Glasgow G12 8QQ.

Transformations of substrate analogues are used to identify enzyme substrate interactions.

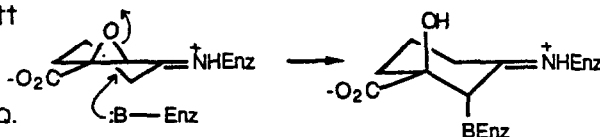
**AFFINITY LABELLING OF E. COLI DEHYDROQUINASE**

T.D.H. Bugg,† C. Abell† and J.R. Cogginst††

† University Chemical Laboratory, Lensfield Road, Cambridge CB2 1EW.

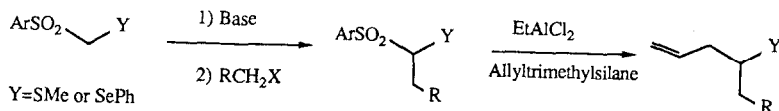
†† Department of Biochemistry, University of Glasgow, Glasgow G12 8QQ.

The synthesis of three irreversible inhibitors of dehydroquinase is described.



**SYNTHESIS OF ALLYLIC SULPHIDES AND SELENIDES
BY LEWIS ACID MEDIATED DISPLACEMENT REACTIONS
OF SULPHONES**

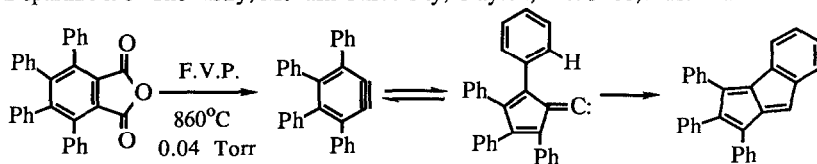
Nigel S. Simpkins, Department of Chemistry,
Queen Mary College, Mile End Road, London E1 4NS. ABSTRACT: Allylic sulphides, or
selenides are produced by reaction of appropriate α -sulphonyl sulphides or selenides with
allyltrimethylsilane in the presence of EtAlCl_2 .



Tetrahedron Lett. 29, 6787 (1988)

**THE PYROLYSIS OF TETRAPHENYLPHTHALIC ANHYDRIDE:
FORMATION OF 1,2,3-TRIPHENYLBENZOPENTALENE**

Roger F.C. Brown*, Karen J. Coulston, Frank W. Eastwood* and Terry Korakis
Department of Chemistry, Monash University, Clayton, Vic. 3168, Australia



Tetrahedron Lett. 29, 6791 (1988)

**SCAPANIAPYRONE A, A NOVEL AROMATIC CONSTITUENT
OF THE LIVERWORT *Scapania undulata***

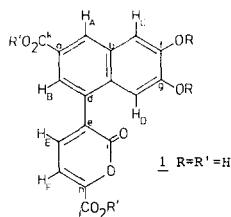
Rüdiger Mues^a, Siegfried Huneck^b, Joseph D. Connolly^c
and David S. Rycroft^c

^a Fachrichtung Botanik 15.1, Universität des Saarlandes,
D-6600 Saarbrücken 11, Federal Republic of Germany

^b Institute of Plant Biochemistry of the Academy of Sciences
of the G.D.R., DDR-4050, Halle/Saale, German Democratic Republic

^c Department of Chemistry, University of Glasgow, Glasgow
G12 8QQ, Scotland

The structure **1** of scapaniapyrone A has been assigned using the
combined evidence of the proton-coupled ¹³C n.m.r. spectrum and
a 2D long-range δ_C/δ_H correlation spectrum.

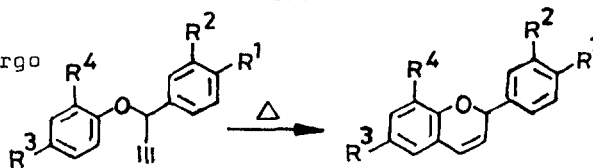


Tetrahedron Lett. 29, 6793 (1988)

**A NOVEL SYNTHESIS OF FLAV-3-ENES BY CLAISEN
REARRANGEMENT**

Rajaram Sankara Subramanian and Kalpattu Kuppusamy Balabubramanian
Department of Chemistry, Indian Institute of Technology,
Madras - 600 036. India.

1-Arylprop-2-ynyl aryl ethers undergo
a facile Claisen rearrangement to
give flav-3-enes in good yields.



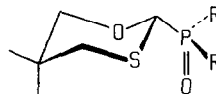
Tetrahedron Lett. 29, 6797 (1988)

Tetrahedron Lett. 29, 6801 (1988)

**A SOLUTION AND SOLID STATE CONFORMATION
OF 2-PHOSPHORYL SUBSTITUTED 1,3-OXATHIANES**

M. Mikołajczyk*, P. Graczyk, M. W. Wieczorek,
G. Bujacz

Centre of Molecular and Macromolecular Studies,
Polish Academy of Sciences, 90-362 Łódź, Boczna 5
Poland, Institute of General Chemistry, Technical
University, 90-924 Łódź, Żwirki 26, Poland



2-Phosphoryl 1,3-oxathianes exist in an equatorial conformation both in solution and the solid state

Tetrahedron Lett. 29, 6805 (1988)

**THE BEHAVIOUR OF UNSATURATED 1,2-HYDROXYIMINOKETONES
WITH TRIFLUOROACETIC ACID**

Roger Bishop,* Stephen C. Hawkins, Titos A.O. Quibuyen,
and Peter R. Brooks
School of Chemistry, The University of New South Wales,
Kensington, N.S.W. 2033, Australia.

Appropriately substituted unsaturated (*E*)-1,2-hydroxy-
iminoketones undergo clean cyclisation in
trifluoroacetic acid producing high yields of
heterocyclic products such as the examples shown.

