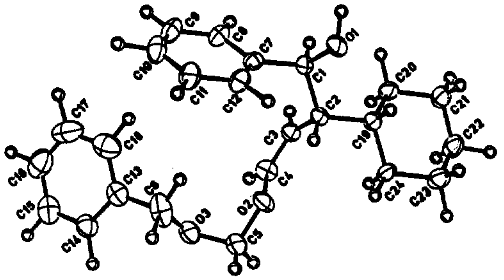
Tetrahedron Lett. **1992**, *33*, 713

X-RAY STRUCTURE OF A CHIRAL ALKENE: DIRECT EVIDENCE FOR C-H BOND ECLIPSING C=C BOND

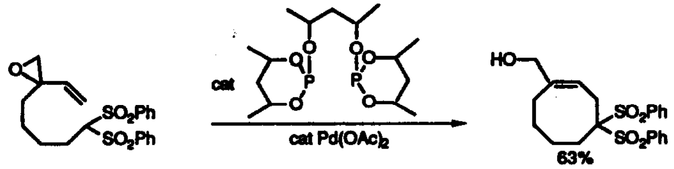
Benjamin W. Gung*, Anastas Karipides†, Mark A. Wolf,
Department of Chemistry, Miami University, Oxford, Ohio 45056



Tetrahedron Lett. **1992**, *33*, 717

On Palladium Catalyzed Cyclizations to Medium Sized Carbocycles

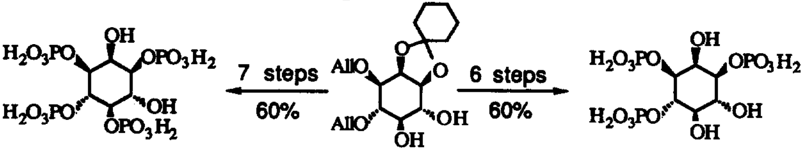
Barry M. Trost, Beverly A. Vos, Christina M. Brzezowski and Daniel P. Martina
Departments of Chemistry
Stanford University, Stanford, CA 94305-5080, University of Wisconsin, Madison, WI 53706



Tetrahedron Lett. **1992**, *33*, 721

AN EFFICIENT ROUTE TO *D-MYO*-INOSITOL 1,3,4-TRIPHOSPHATE AND *D-MYO*-INOSITOL 1,3,4,5-TETRAKISPHOSPHATE

Da-Ming Gou and Ching-Shih Chen*. Department of Pharmacognosy
University of Rhode Island, Kingston, RI 02881

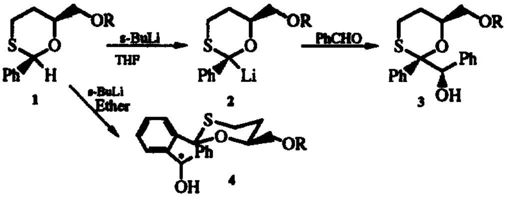


Tetrahedron Lett. **1992**, *33*, 725

DIASTEREOSELECTIVE ALKYLATION OF CARBANIONS DERIVED FROM 1,3-OXATHIANES

Hélène Perrier, Greg Huyer and Robert N. Young*
Merck Frosst Centre for Therapeutic Research, P.O. Box 1005, Pointe Claire-Dorval, Québec, Canada H9R 4P8

Reaction of carbanions 2 with benzaldehyde in THF provides adducts with significant diastereoselectivities at the methine site. Metalation of 1 in ether and reaction with benzaldehyde provides adducts with moderate diastereoselectivities.

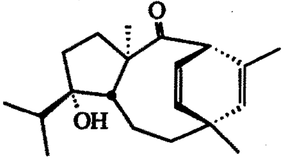


Tetrahedron Lett. **1992**, *33*, 729

DIVARINONE, A NOVEL DITERPENE FROM THE BROWN ALGA *DICTYOTA DIVARICATA* OF THE INDIAN OCEAN

Golakoti Trimurtulu, Diana M. Kushlan, D. John Faulkner, and Ch. Bheemasankara Rao
Scripps Institution of Oceanography, UCSD, La Jolla, CA 92093-0212, USA
and School of Chemistry, Andhra University, Visakhapatnam 530 003, India

An Indian Ocean specimen of *Dictyota divaricata* contains divarinone, which is the first example of a new class of tricyclic diterpene.

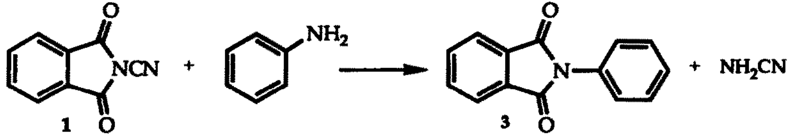


Tetrahedron Lett. **1992**, *33*, 733

N-Cyanoimides: Reactivity Studies with Amine Nucleophiles

Randall W. Stephens*, Linda A. Domeier, Michael G. Todd, Veronica A. Nelson
Henkel Research Corporation, Santa Rosa, California 95407

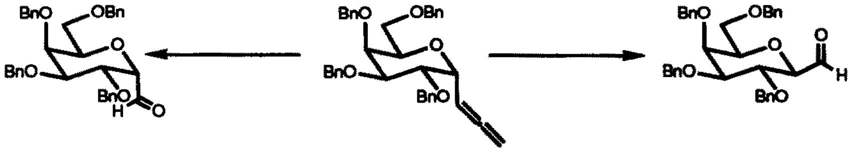
N-Cyanoimides are useful precursors to N-alkyl or N-aryl imides. Treatment of aromatic N-cyanoimides such as N-cyanophthalimide (1) with primary amines provides N-substituted imides such as 3 under very mild conditions.



Tetrahedron Lett. **1992**, *33*, 737

AN EFFICIENT METHOD FOR THE SYNTHESIS OF α- AND β-*C*-GLYCOSYL ALDEHYDES

William R. Kobertz§¶, Carolyn R. Bertozzi§, and Mark D. Bednarski§¶*
*§Department of Chemistry, University of California, Berkeley, CA 94720
¶Center for Advanced Materials, Lawrence Berkeley Laboratory, Berkeley, CA 94720

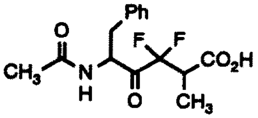


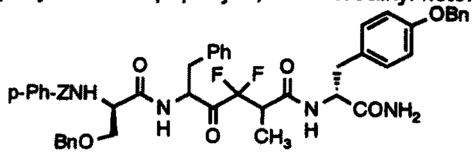
Tetrahedron Lett. **1992**, *33*, 741

SYNTHESIS AND N- AND C-TERMINAL EXTENSION OF PEPTIDYL α,α-DIFLUOROALKYL KETONES.

Wonpyo Hong*, Liwen Dong, Zhenhong Cai and Richard Titmas
IGEN, Inc., 1530 East Jefferson St., Rockville, Maryland 20852

A Convenient synthesis of the dipeptidyl and tetrapeptidyl α,α-difluoroalkyl ketones is described.

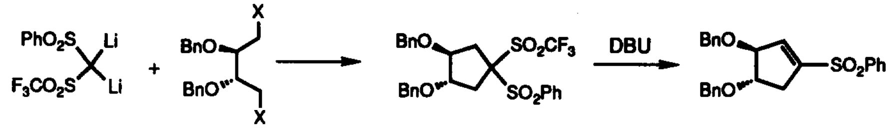




Tetrahedron Lett. **1992**, *33*, 745

BIS-ALKYLATION OF DIMETALLATED PHENYLSULFONYLMETHYL TRIFLONE. A n+1 ANNULATION STRATEGY FOR SYNTHESIS OF CYCLIC VINYL SULFONES.

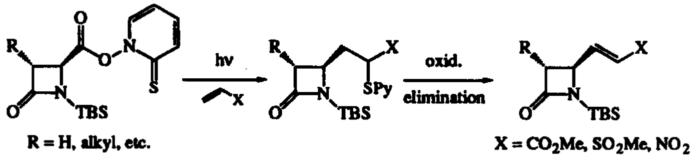
S. S. Magar, P. L. Fuchs*
Department of Chemistry, Purdue University, West Lafayette, IN 47907



Tetrahedron Lett. **1992**, *33*, 749

THE STEREOCONTROLLED SYNTHESIS OF VERSATILE CARBAPENEM INTERMEDIATES USING THE BARTON O-ACYL 2-THIOPYRIDYLHYDROXAMATE FRAGMENTATION

Kenzo Sumi, Romano Di Fabio and
Stephen Hanessian;
Department of Chemistry, Université de
Montréal, C.P. 6128, Succ. A
Montréal, QC, CANADA, H3C 3J7.



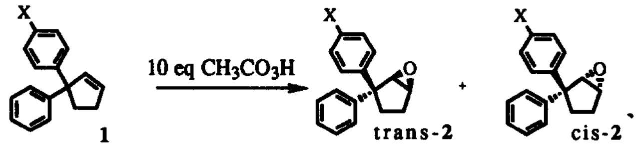
Abstract – The photo-initiated fragmentation of 2-azetidinone-4-carboxylic acid 2-thiopyridylhydroxamates (Barton reaction) in the presence of Michael acceptors leads to the introduction of a doubly functionalized carbon chain, useful for the elaboration of carbapenem and related β-lactam antibiotics.

Tetrahedron Lett. **1992**, *33*, 753

EVIDENCE FOR STEREOELECTRONIC CONTROL IN THE EPOXIDATION OF STERICALLY UNBIASED 3,3-DIARYLCYCLOPENTENES

Ronald L. Halterman* and Marjorie A. McEvoy Department of Chemistry, Boston University, Boston, MA 02215

Epoxidations of the sterically unbiased olefin, 3-(4-X-phenyl)-3-phenylcyclopentene 1 with peracetic acid have been found to proceed with up to 73:27 stereoselectivity.

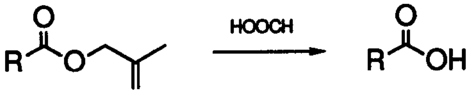


Tetrahedron Lett. **1992**, *33*, 757

Acid Lability of Allylic Esters: Use of Methallyl Esters as Acid-Labile Protecting Groups for Carboxylic Acids

Christopher R. Schmid; Chemical Process Research and Development,
Lilly Research Laboratories, Eli Lilly and Company, Indianapolis, IN 46285

Methallyl esters are presented as useful acid-labile protecting groups for carboxylic acids.



Tetrahedron Lett. **1992**, *33*, 761

REACTION OF A CHIRAL CYCLOPROPYL HALIDE WITH ALKALI METALS IN ALCOHOL SOLVENTS. THE SURFACE NATURE OF THE REACTION.

H. M. Walborsky, J. Ollman, C. Hamdouchi and M. Topolski
Dittmer Laboratories of Chemistry, Florida State University, Tallahassee, FL 32306

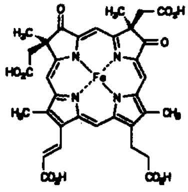
(S)-(+)-1 (R)-(-)-2

Tetrahedron Lett. **1992**, *33*, 765

A Convenient Synthesis of the Nitrite Reducing Cofactor Heme d_1 from Hematoporphyrin

Franz-Peter Montforts[a], Gerhard Mai[a], Frank Romanowski[a] and Jan W. Bats[b]*
[a] Institut für Organische Chemie, FB2, Universität Bremen, Leobenerstr. NW2, D-2800 Bremen 33, Germany and
[b] Institut für Organische Chemie der Johann Wolfgang Goethe Universität, Niederurseler Hang, D-6000 Frankfurt am Main 50, Germany

The nitrite reducing cofactor heme d_1 1 or ent-1 has been synthesized. A single crystal structure analysis establishes the so far unknown relative configuration.

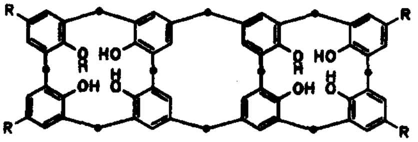


1 or ent-1

Tetrahedron Lett. **1992**, *33*, 769

ANNELATED CALIX[4]ARENES, A NEW TYPE OF OLIGOMERIC CALIXARENES

V. Böhmer[a)], R. Dörrenbächer[a)], Walter Vogt[a)], L. Zetta[b)]
a) Institut f. Org. Chemie, Joh. Gutenberg Univ., D-6500 Mainz, Germany
b) Istituto di Chimica d. Macromolecole del CNR, I-20133 Milano, Italy

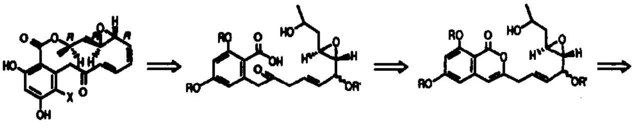


Compounds with two or three calix[4]arene substructures are described in which two adjacent phenolic units belong to two adjacent calix[4]arene systems.

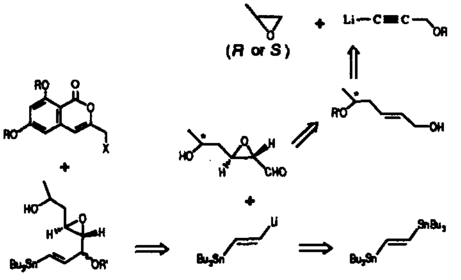
Tetrahedron Lett. **1992**, *33*, 773

Convergent Stereospecific Total Synthesis of Monochiral Monocillin I Related Macrolides.

Maxime Lampilas and Robert Lett*
Unité Mixte CNRS - Roussel Uclaf (UMR 26)
BP 9 - 93230 Romainville (France)



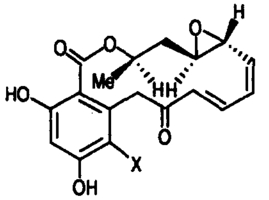
Monocillin I



Tetrahedron Lett. **1992,** *33,* 777

Convergent Stereospecific Total Synthesis of Monocillin I and Monorden (or Radicicol)

Maxime Lampilas and Robert Lett*
Unité Mixte CNRS - Roussel Uclaf (UMR 26)
BP 9 - 93230 Romainville (France)

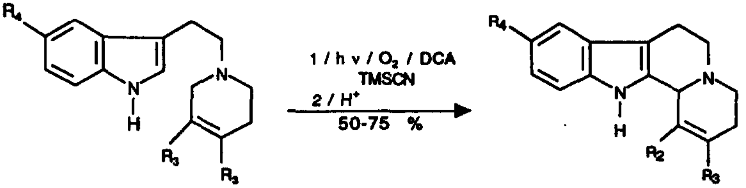


1 X = H Monocillin I
2 X = Cl Monorden (or Radicicol)

Tetrahedron Lett. **1992,** *33,* 781

TRIMETHYLSILYL CYANIDE AS A SUPERIOR TRAPPING AGENT FOR IMINIUM ION INTERMEDIATES IN THE DCA-SENSITIZED PHOTOOXYGENATION OF INDOLE DERIVATIVES AND ANALOGUES. APPLICATION TO THE TOTAL SYNTHESIS OF SOME INDOLOQUINOLIZIDINE ALKALOIDS

J. Santamaria, M.T. Kaddachi and C. Ferroud
Laboratoire de Recherches Organiques de l'ESPCI, 10 rue Vauquelin, 75005 PARIS



Tetrahedron Lett. **1992,** *33,* 785

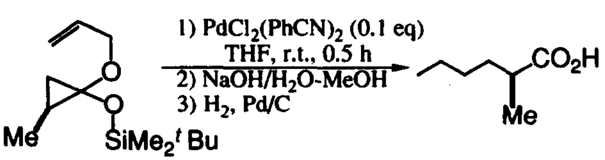
Synthesis of 1-Allyloxy-1-siloxycylopropanes and 1-Propargyloxy-1-siloxycylopropanes

K. Yasui, K. Fugami, S. Tanaka, and Y. Tamaru*
Department of Applied Chemistry, Faculty of Engineering, Nagasaki University, Bunkyo, Nagasaki 852, Japan
A. Ii and Z. Yoshida
Department of Synthetic Chemistry, Faculty of Engineering, Kyoto University, Sakyo, Kyoto 606, Japan
M. R. Saidi
Department of Chemistry, Sharif University of Technology, P.O. Box 11365-8639, Tehran, Iran

Tetrahedron Lett. **1992,** *33,* 789

Palladium(II) Catalyzed Novel Rearrangement of 1-Allyloxy-1-siloxycyclo propanes

Kengo Yasui, Keigo Fugami, Shuji Tanaka, and Yoshinao Tamaru*
Department of Applied Chemistry, Faculty of Engineering, Nagasaki University, Bunkyo, Nagasaki 852, Japan
Atsuhiko Ii and Zen-ichi Yoshida
Department of Synthetic Chemistry, Faculty of Engineering, Kyoto University, Sakyo, Kyoto 606, Japan
Mohamad R. Saidi
Department of Chemistry, Sharif University of Technology, P.O. Box 11365-8639, Tehran, Iran

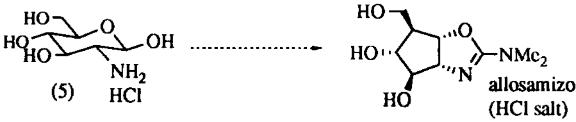


Tetrahedron Lett. **1992,** *33,* 793

An Enantiospecific Total Synthesis of Allosamizoline

Nigel S. Simpkins* and Stephen Stokes, Department of Chemistry,
University of Nottingham, University Park, Nottingham NG7 2RD, UK, and Alan J. Whittle, ICI Agrochemicals, Jealott's Hill Research Station, Bracknell, Berkshire RG12 6EY, UK.

An enantiospecific total synthesis of allosamizoline has been accomplished in a short stereoselective sequence starting from glucosamine hydrochloride (5).



(5)

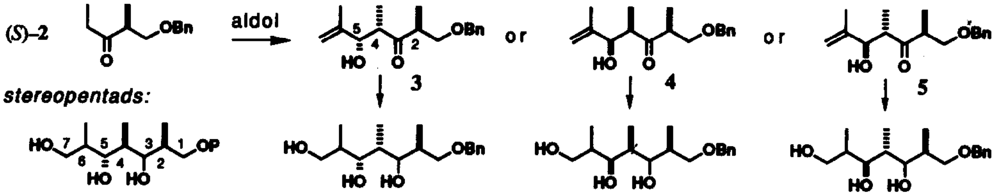
allosamizoline
(HCl salt)

Tetrahedron Lett. **1992,** *33,* 797

STUDIES IN POLYPROPIONATE SYNTHESIS:
A GENERAL APPROACH TO THE SYNTHESIS OF STEREOPENTADS.

Ian Paterson and Julia A. Channon, University Chemical Laboratory, Lensfield Road, Cambridge CB2 1EW, UK*

Selective access to any of 16 stereopentad isomers is possible starting from the α-chiral ethyl ketone **2** *via* the β-hydroxyketones **3** – **5**.

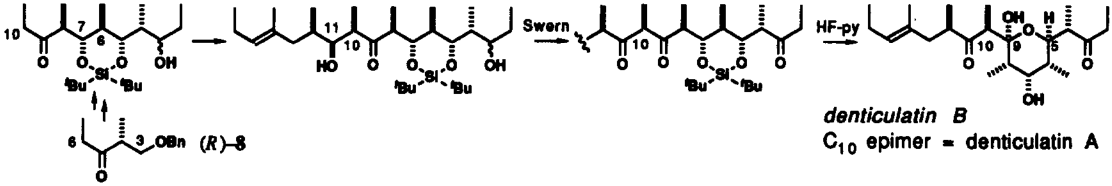


Tetrahedron Lett. **1992,** *33,* 801

STUDIES IN POLYPROPIONATE SYNTHESIS:
STEREOSELECTIVE SYNTHESIS OF (–)-DENTICULATINS A & B.

Ian Paterson and Michael V. Perkins, University Chemical Laboratory, Lensfield Road, Cambridge CB2 1EW, UK*

The marine polypropionates (–)-denticulatin A and B were prepared in 9 steps starting from the ethyl ketone (*R*)-**8**. The C_6–C_7 and C_{10}–C_{11} bonds were made by B- and Ti-mediated aldol reactions. (–)-Denticulatin B can be obtained stereoselectively by this route.



denticulatin B
C_{10} epimer = denticulatin A

Tetrahedron Lett. **1992,** *33,* 805

ONE POT AMIDE/ PEPTIDE SYNTHESIS VIA
TWO REDOX REACTIONS

Sunil K. Ghosh, Usha Singh and Vasant R. Mamdapur*
Bio-Organic Division, Bhabha Atomic Research Centre,
Bombay 400 085, INDIA.

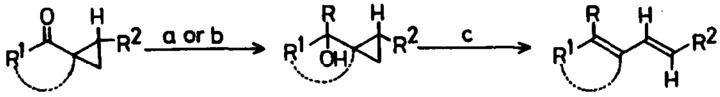
$$\mathrm{RCOOH} + \mathrm{PhSeSePh} \xrightarrow{\left[\begin{array}{l}\text{i) } \mathrm{Bu_3P} \\ \text{ii) } \mathrm{R'N_3}\end{array}\right]} \mathrm{RCONHR'} + \mathrm{PhSeSePh}$$

RCOOH = N-protected amino acid/ peptide; $R'N_3$ = azide/ α-azido acid ester

Tetrahedron Lett. **1992,** *33,* 809

A HIGHLY STEREOSELECTIVE SYNTHESIS OF SUBSTITUTED BUTADIENES AND CONJUGATED POLYENES§

Balaram Patro, Hiriyakkanavar Ila and Hiriyakkanavar Junjappa**
Deptt. of Chemistry, North-Eastern Hill University, Shillong 793 003, India.



a, $NaBH_4/EtOH$; b, $MeMgI/Et_2O$; c, DMSO/Δ

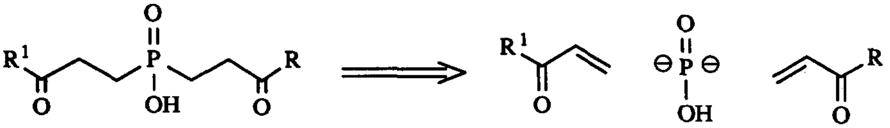
R = H, Me ; R^1 = aryl, alkyl, furyl ; R^2 = aryl, $C_6H_5(CH=CH)_n$; n = 1,2

Tetrahedron Lett. **1992,** *33,* 813

SYNTHESIS OF γ-KETO-SUBSTITUTED PHOSPHINIC ACIDS FROM BIS(TRIMETHYLSILYL)PHOSPHONITE AND α,β-UNSATURATED KETONES

E. Andrew Boyd,[a] Andrew C. Regan,*[a] and Keith James[b]
[a] Chemical Laboratory, The University, Canterbury, Kent CT2 7NH, U.K.
[b] Pfizer Central Research, Sandwich, Kent CT13 9NJ, U.K.

$(TMSO)_2PH$ reacts as the synthon shown, in addition to α,β-unsaturated ketones to give phosphinic acids:

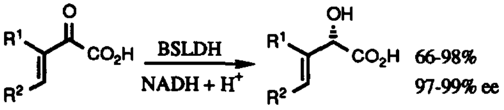


Tetrahedron Lett. **1992,** *33,* 817

ENANTIOSELECTIVE REDUCTION OF β,χ-UNSATURATED α-KETO ACIDS USING *BACILLUS STEAROTHERMOPHILUS* LACTATE DEHYDROGENASE: A NEW ROUTE TO FUNCTIONALISED ALLYLIC ALCOHOLS

Guy Casy,* Thomas V. Lee and Helen Lovell, School of Chemistry and Molecular Recognition Centre, University of Bristol, Cantocks Close, Bristol BS8 1TS, UK

The enantioselective reduction of β,χ-unsaturated α-keto acids, catalysed by lactate dehydrogenase, provides funtionalised allylic alcohols in high optical purity.

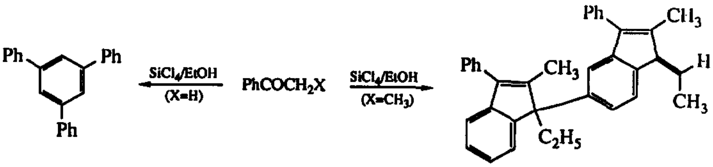


Tetrahedron Lett. **1992,** *33,* 821

Investigations of the Tetrachlorosilane-Ethanol Induced Self Condensations of Ketones.[1]

Saad S. Elmorsy*[a1], Andrew Pelter[a], Keith Smith[a], Michael B. Hursthouse[b,c] and David Ando[c]
[a)]Department of Chemistry, U.C. of Swansea, Singleton Park, Swansea SA2 8PP, U.K.
[b)]Department of Chemistry, U.C. of Cardiff, Cathays Park, Cardiff CF1 3NS, U.K.
[c)]Department of Chemistry, Queen Mary's College, Mile End Road, London E1 4NS, U.K.

The $SiCl_4/EtOH$ induced reactions of ketones to give benzenoids may be diverted at the second aldol condensation or at the cyclisation stage.

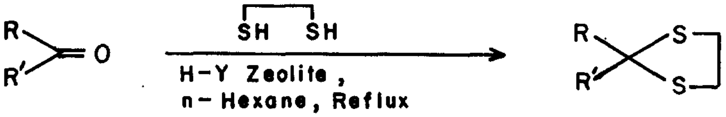


Tetrahedron Lett. **1992**, *33*, 825

H-Y ZEOLITE, AN EFFICIENT CATALYST FOR THIOACETALIZATION

Pradeep Kumar*, Ravinder S.Reddy, Anand P.Singh and Bipin Pandey
National Chemical Laboratory, Pune-411 008, India.

H-Y zeolite has been found to be an excellent catalyst for the thioacetalization of a wide range of carbonyl compounds including the aromatic and hindered ketones.

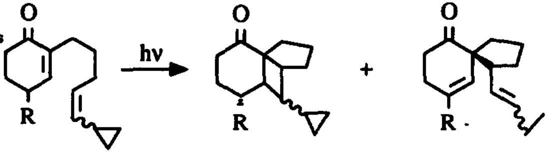


Tetrahedron Lett. **1992**, *33*, 827

DIRADICAL INTERMEDIATES IN INTRAMOLECULAR [2+2] PHOTOCYCLOADDITION

D. Becker*, C. Denekamp and N. Haddad
Dept. of Chemistry, Technion-Israel institute of Technology, Technion City, Haifa, 32000, Israel.

The structures of diradical intermediates involved in [2+2] intramolecular photocycloaddition were established, using a cyclopropyl ring as a trapping function.

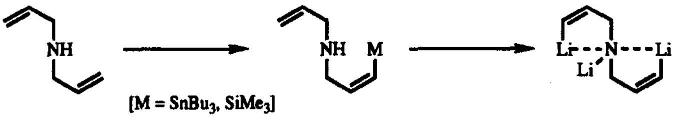


Tetrahedron Lett. **1992**, *33*, 831

AN EASY ENTRY TO TRILITHIATED DIALLYL AMINE BY A REGIO- AND STEREO-SELECTIVE LITHIATION OF HETEROSUBSTITUTED DIALLYL AMINES.

José Barluenga,* Rosario González, and Francisco J. Fañanás
Departamento de Química Organometálica, Universidad de Oviedo, 33071-Oviedo, Spain

Trilithiated diallyl amine was obtained from diallyl amine *via* regio- and stereo-selective lithiation of heterosubstituted diallyl amines.

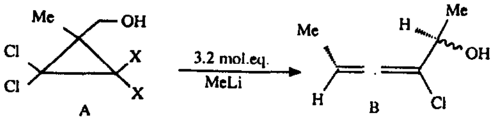


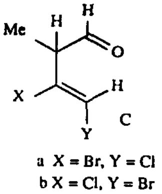
Tetrahedron Lett. **1992**, *33*, 835

AN UNUSUAL ANION-PROMOTED HYDROGEN SHIFT

Juma'a R. Al-Dulayymi and Mark S. Baird*
Department of Chemistry, University of Wales, Bangor, Gwynedd, LL57 2UW, U.K.

Reaction of (A, X = Cl) with methyllithium leads to a mixture of diastereomeric allenes (B), while (A, X = Br) leads to (C). The mechanisms of these reactions have been examined by ^{2}H-labelling.





Tetrahedron Lett. **1992**, *33*, 839

SYNTHESIS OF NEW HETEROCYCLIC SYSTEMS BY 1,3-DIPOLAR CYCLOADDITION REACTIONS OF DIHYDRO-β-CARBOLINE N-OXIDES WITH ALKYNES

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A new synthesis of pyrrolo-β-carboline (5a) by thermal rearrangement of tetrahydroisoxazolocarboline derivative (4a) is described.