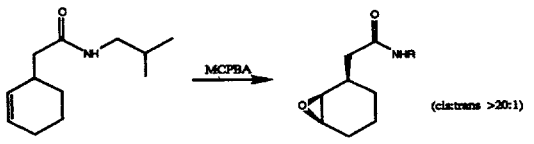
GRAPHICAL ABSTRACTS

Tetrahedron Lett.30,1309(1989)

CARBONYL DIRECTED EPOXIDATION IN γ,δ-UNSATURATED ACID DERIVATIVES

Fariborz Mohamadi* and Michael M. Spees
Lilly Research Laboratories, Eli Lilly and Company, Indianapolis, IN 46285

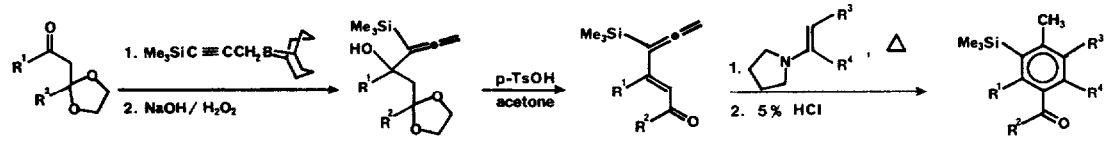
Epoxidation of γ,δ-unsaturated amides provide predominately the syn epoxide.



Tetrahedron Lett.30,1311(1989)

REGIOSELECTIVE SYNTHESIS OF HIGHLY SUBSTITUTED ARYLSILANES BY THE REACTION OF THE TRIMETHYLSILYL-SUBSTITUTED VINYLALLENONES WITH ENAMINES

Kung K. Wang*, Yemane W. Andemichael, and Sujitra Dhumrongvaraporn
Department of Chemistry, West Virginia University, Morgantown, West Virginia 26506



Tetrahedron Lett.30,1315(1989)

PROTONATION OF 1-ARYL-3,3,3-TRIFLUOROPROPYNES

Annette D. Allen, Giancardo Angelini, Cristina Paradisi, Andrew Stevenson, and Thomas T. Tidwell, Department of Chemistry, University of Toronto, Scarborough Campus, Scarborough, Ontario, Canada M1C 1A4; Istituto di Chimica Nucleare del C.N.R., 00016 Monterotondo Stazione, C.P. 10, Roma, Italy; and Istituto di Chimica Organica, Universita di Padova, 35131 Padova, Italy.

1-Aryl-3,3,3-trifluoropropynes (**1**) are protonated in solution and the gas phase to give vinyl cations **2** with high electron demand and major destabilization.

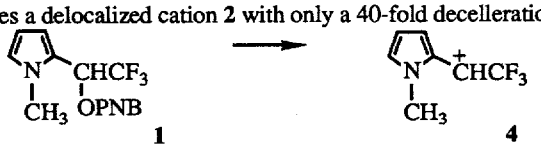
$$ArC{\equiv}CCF_3\ \mathbf{1} + H^+ \rightarrow Ar\overset{+}{C}{=}CHCF_3 \qquad \mathbf{2}$$

Tetrahedron Lett.30,1319(1989)

SOLVOLYTIC REACTIVITY OF 1-(1-METHYL-2-PYRROLYL)-2,2,2-TRIFLUOROETHYL p-NITROBENZOATE

Jean-Marc Kwong Chip and Thomas T. Tidwell, Dept. of Chemistry, University of Toronto, Scarborough Campus, Scarborough, Ontario, Canada M1C 1A4

Solvolysis of **1** gives a delocalized cation **2** with only a 40-fold decelleration by CF_3 relative to H.

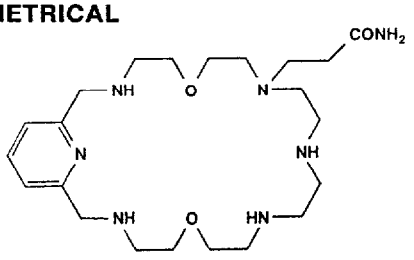


Tetrahedron Lett.30,1323(1989)

STRATEGY FOR THE SYNTHESIS OF UNSYMMETRICAL N-SUBSTITUTED POLYAZAMACROCYCLES

Kunjian Gu, Kristin Bowman Mertes,#Mathias P. Mertes, Departments of Medicinal Chemistry and Chemistry#, University of Kansas, Lawrence, Kansas, 66045, USA*

Summary: A convergent route is described for the preparation of unsymmetrical N-substituted polyammonium macrocycles applicable for the synthesis of macrocycles of differing ring size and heteroatom substitution.



Tetrahedron Lett.30,1327(1989)

INTRAMOLECULAR CYCLIZATIONS FROM N-ALKOXYAMINES. FORMATION OF DIALKYLSUBSTITUTED PYRROLIDINES AND PIPERIDINES.

D.R. Williams*, M.H. Osterhout and J.M. McGill
Department of Chemistry, Indiana University, Bloomington, Indiana 47405, U.S.A.

Iodine-induced cyclizations of *bis*-homoallylic N-alkoxyamines favor formation of *trans*-2,3 and 2,5-disubstituted pyrrolidino iodides. Analogous studies toward 2,6-dialkylsubstituted piperidines are also reported.

Tetrahedron Lett.30,1331(1989)

ANCHIMERIC ASSISTANCE WITH INTERMEDIARY N-ALKOXYAZIRIDINIUM SALTS. FORMATION OF VICINAL AMINOALCOHOLS AND DERIVATIVES.

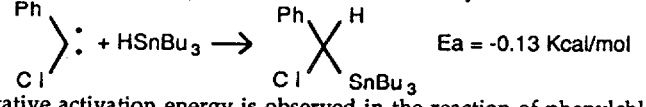
D.R. Williams*, M.H. Osterhout and J.M. McGill
Department of Chemistry, Indiana University, Bloomington, Indiana 47405, U.S.A.

Pyrrolidino iodides are transformed into β-aminoalcohols and vicinal aminolactones with net retention of carbon configurations.

Tetrahedron Lett.30,1335(1989)

Activation Parameters for the Reaction of Phenylchloro Carbene with Pyridine, Tri-n-butyltin Hydride, and Triethylsilane; Evidence Against the Need to Invoke Reversibly Formed Complexes in the Reaction of This Carbene with Olefins.

James E. Jackson, N. Soundararajan, Matthew S. Platz, Michael P. Doyle and Michael T. H. Liu
Department of Chemistry, The Ohio State University, Columbus, OH 43210



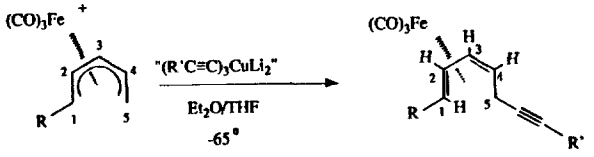
A negative activation energy is observed in the reaction of phenylchloro carbene with $HSnBu_3$.

Tetrahedron Lett.30,1339(1989)

(η^5-1-SUBSTITUTED-PENTADIENYL)(TRICARBONYL)IRON(+1): REACTIVITY WITH ALKYNYL NUCLEOPHILES

William A. Donaldson* and Muthukumar Ramaswamy
Department of Chemistry, Marquette University, Milwaukee, WI 53233 USA

The title compounds react with alkynyl cuprates via attack at the unsubstituted pentadienyl terminus to afford (η^4-*trans*, *cis*-1,3,6-dienyne)Fe(CO)$_3$ complexes.



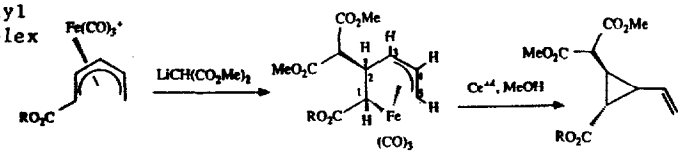
R = CH_3, Ph, CO_2Me; R' = Ph, C_5H_{11}

Tetrahedron Lett.30,1343(1989)

CONCERNING THE REACTION OF (η^5-1-METHOXYCARBONYLPENTADIENYL)(TRICARBONYL)IRON(+1) WITH MALONATE: A STRUCTURAL CORRECTION

William A. Donaldson* and Muthukumar Ramaswamy
Department of Chemistry, Marquette University, Milwaukee, WI 53233 USA

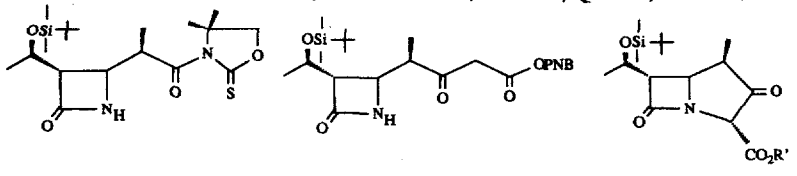
The title reaction affords a σ-π-allyl complex, instead of an η^4-diene complex as originally reported (*Tetrahedron Lett.*, 1988, 1343).



Tetrahedron Lett.30,1345(1989)

SYNTHESIS OF 1-β-METHYLCARBAPENEM KEY INTERMEDIATES INVOLVING THE LABILE ACYL AUXILIARY 4,4-DIMETHYL-1,3-OXAZOLIDINE-2-THIONE.

Robert Déziel* and Denis Favreau. Chemical Process Development, Bristol-Myers Pharmaceutical Research and Development Division , Candiac, Québec, Canada J5R 1J1

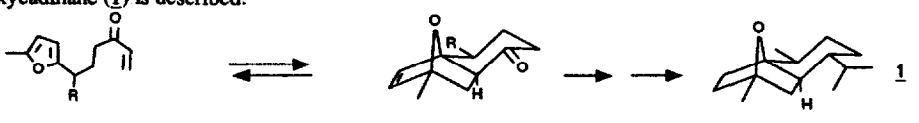


Tetrahedron Lett.30,1349(1989)

THE EFFECT OF SIDE CHAIN SUBSTITUENTS ON THE INTRAMOLECULAR DIELS-ALDER REACTION OF THE FURAN DIENE: THE SYNTHESIS OF (±)-1,4-EPOXYCADINANE

Christine Rogers and Brian A. Keay*
Department of Chemistry and Biochemistry, University of Windsor, Windsor, Ontario, Canada, N9B 3P4

The effect of side chain substituents on the intramolecular Diels-Alder of the furan diene is reported in which the side chain connecting the furan diene to the dienophile contains four carbon atoms. The synthesis of 1,4-epoxycadinane (1) is described.

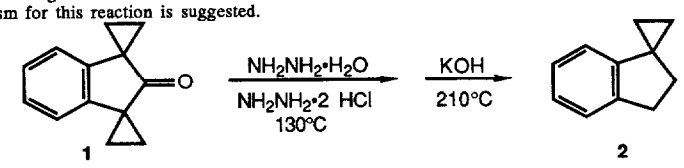


Tetrahedron Lett.30,1353(1989)

THE CLEAVAGE OF TWO CARBON-CARBON BONDS IN A WOLFF-KISHNER REDUCTION.

Robert P. Lemieux and Peter Beak, Roger Adams Laboratory, Department of Chemistry, University of Illinois at Urbana-Champaign, Urbana, IL 61801

The reaction of 1 to give 2 in which two carbon-carbon bonds are cleaved under Wolff-Kishner conditions is reported and a mechanism for this reaction is suggested.



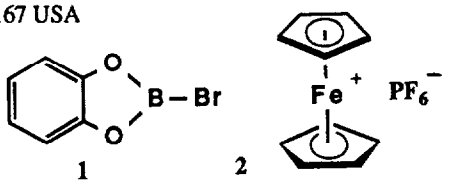
1 2

Tetrahedron Lett.30,1357(1989)

NEW LEWIS ACID CATALYSTS FOR THE DIELS-ALDER REACTION

T. Ross Kelly*, Sanat K. Maity, Premji Meghani and Nizal S. Chandrakumar
Department of Chemistry, Boston College, Chestnut Hill, MA 02167 USA

Catechol boron bromide (1) and ferrocenium hexafluorophosphate (2) function as Lewis acid catalysts for the Diels-Alder reaction.

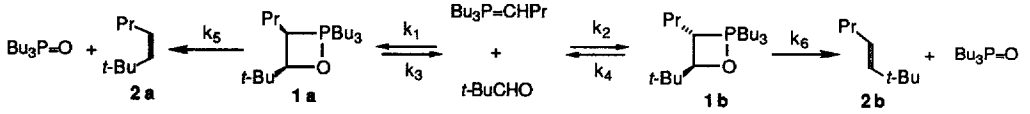


1 2

Tetrahedron Lett.30,1361(1989)

NMR RATE STUDY ON THE WITTIG REACTION OF 2,2-DIMETHYLPROPANAL AND TRIBUTYLBUTYLIDENEPHOSPHORANE

Bruce E. Maryanoff,* Allen B. Reitz, David W. Graden, and Harold R. Almond, Jr.
Chemical Research Department, Janssen Research Foundation, Spring House, Pennsylvania 19477 USA



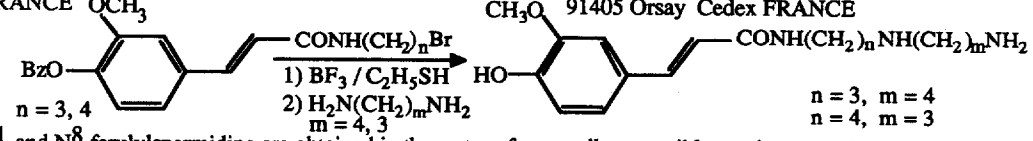
2a 1a 1b 2b

Tetrahedron Lett.30,1365(1989)

A NEW REGIOSELECTIVE SYNTHESIS OF N^1- AND N^8-MONOACYLATED SPERMIDINES

Florence Ramiandrasoa and Marie-Louise Milat
Laboratoire des Médiateurs Chimiques (INRA-CNRS)
Domaine de Brouëssy, 78470 Saint-Rémy-les-Chevreuse, FRANCE

Gerhard Kunesch* and Sylvaine Chuilon
Laboratoire de Chimie de Coordination Bioorganique
Université Paris-Sud, Bâtiment 420,
91405 Orsay Cedex FRANCE



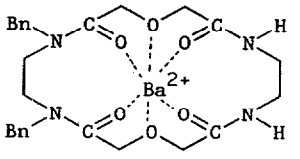
N^1 and N^8 ferulylspermidine are obtained in three steps from easily accessible starting materials.

Tetrahedron Lett.30,1369(1989)

A BARIUM SELECTIVE MACROCYCLIC TETRALACTAM WITH DIMETHYLENEOXY MOIETIES

Louis Cazaux, Marie-Christine Duriez,
Claude Picard and Pierre Tisnès
Synthèse et Physicochimie organique, UA CNRS n° 471,
Université Paul Sabatier, 31062 TOULOUSE CEDEX (FRANCE)

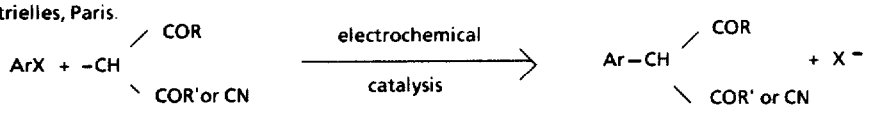
compound 2b is synthesized and its complexation ability and selectivity toward Ba^{2+} are described



Tetrahedron Lett.30,1373(1989)

ELECTROCHEMICALLY INDUCED $S_{RN}1$ AROMATIC NUCLEOPHILIC SUBSTITUTION. MONOANIONS OF B-DICARBONYL AND B-CYANOCARBONYL COMPOUNDS AS NUCLEOPHILES

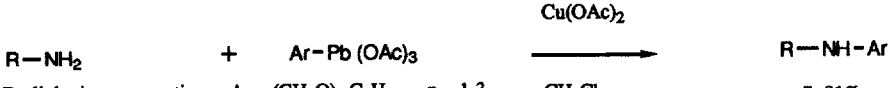
M.A. OTURAN[a], J. PINSON,[a] J.M. SAVEANT[a] and A. THIEBAULT [b]
a. Laboratoire d'Electrochimie Moléculaire de l'Université de Paris 7.
b. Laboratoire de Chimie et Electrochimie des Matériaux Moléculaires, Ecole Supérieure de Physique et Chimie Industrielles, Paris.



Tetrahedron Lett.30,1377(1989)

ARYLATION OF AMINES BY ARYLLEAD TRIACETATES USING COPPER CATALYSIS.

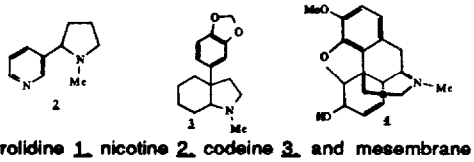
Derek H.R. Barton[a], Dervilla M.X. Donnelly[b], Jean-Pierre Finet[b,c], and Patrick J. Guiry[b,c]
[a] Department of Chemistry, Texas A&M University, College Station, Texas 77843, U.S.A.
[b] Department of Chemistry, University College, Dublin, Ireland.
[c] Faculté des Sciences St. Jérôme, 13397 Marseille Cedex 13, France.



Tetrahedron Lett.30,1381(1989)

ON THE GIF OXIDATION OF TERTIARY AMINES.

D.H.R. Barton, Department of Chemistry, Texas A&M University, College Station, Texas 77843, USA, J. Boivin, Laboratoire de Synthèse Organique, Ecole Polytechnique, 91128 Palaiseau, FRANCE, D. Gaudin, and K. Jankowski, Département de Chimie, Université de Moncton, N.B., CANADA



Oxidation of various tertiary amines (N-methyl pyrrolidine 1, nicotine 2, codeine 3, and mesembrane 4 by the Gif^{IV} system (iron catalyst, zinc powder, molecular oxygen in a mixture of pyridine and acetic acid) leads to a mixture of the keto-derivatives and the corresponding lactams.

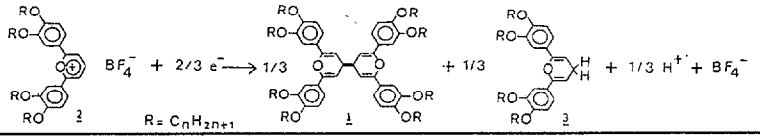
ELECTROSYNTHESIS OF 2,2',6,6'-TETRAARYL 4,4'-BIPYRANNYLIDENES WITH EIGHT FLEXIBLE CHAINS.

Tetrahedron Lett.30,1383(1989)

Christian Amatore[1,*], Anny Jutand[1], Fernando Pflüger[1], Colette Jallabert[2], Hélène Strzelecka[2], Michèle Veber[2].

[1] Laboratoire de Chimie, Ecole Normale Supérieure, CNRS UA 1110, 24 Rue Lhomond 75231 PARIS Cedex 5 FRANCE. [2] Ecole Supérieure de Physique et Chimie Industrielle, CNRS UA 429, 10 Rue Vauquelin 75231 PARIS Cedex 5 FRANCE.

2,2',6,6'-tetraaryl 4,4'-bipyrannylidenes with eight flexible chains are synthesized by electrochemical reduction of the corresponding 2,6-diarylpyrylium salts



SYNTHESIS OF POLYETHER CARBOXYLIC ACIDS WITH A BENZODIOXINIC SUBUNIT.

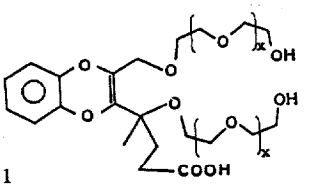
Tetrahedron Lett.30,1387(1989)

P. Bosseray[a], G.Guillaumet[a], G.Coudert[b], H.Wassermann[b]

[a]Université d'Orléans, B.P. 6759,45067 Orléans Cedex 2 France.

[b]Université de Nancy I. 54000 Nancy, France.

The synthesis of novel carboxylic polyethers 1 with a benzodioxinic subunit is described.



1

THE SYNTHESIS OF DOUBLE-CALIXARENES

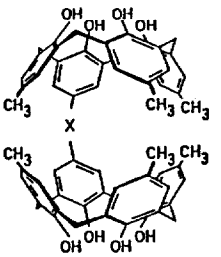
Tetrahedron Lett.30,1391(1989)

Volker Böhmer*[a], Helmut Goldmann[a], Walter Vogt[a], Jacques Vicens*[b] and Zouhair Asfari[b]

a) Institut für Organische Chemie, Johannes Gutenberg Universität, D-6500 Mainz. Germany

b) Laboratoire de Chimie Industrielle, UA 805 du CNRS, Université Claude Bernard, Lyon I F 69622 Villeurbanne. France

Double calixarenes linked by one, two or four aliphatic chains were synthetized for the first time.

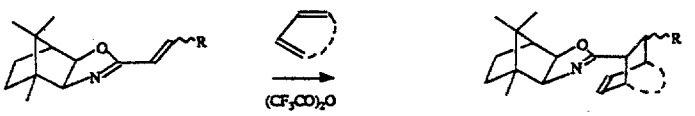


CHIRAL α,β-UNSATURATED OXAZOLINES IN THE ASYMMETRIC DIELS-ALDER REACTION

Tetrahedron Lett.30,1395(1989)

A. Pouilhes, E. Uriarte, C. Kouklovsky, N. Langlois, Y. Langlois,*
A. Chiaroni and C. Riche
Institut de Chimie des Substances Naturelles, C.N.R.S., 91198 Gif s/Yvette Cedex, France

α,β-Unsaturated oxazolines activated with trifluoroacetic anhydride were powerful dienophiles in the asymmetric Diels-Alder reaction.

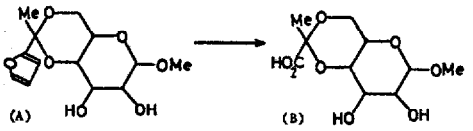


Tetrahedron Lett.30,1399(1989)

AN EFFICIENT SYNTHESIS OF SUGAR PYRUVIC ACID ACETALS

Peter M. Collins*, Andrew C. McKinnon, and Ajay Manro
Chemistry Dept., Birkbeck College, London WC1E 7HX, UK.

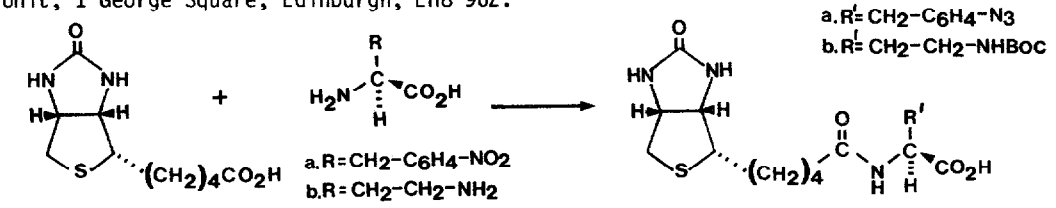
The furan rings in a series of methyl and benzyl 4,6-O-R- and 5-(furan-2-ylethylidene)glycosides (e.g. A) have been oxidized thus providing a range of 4,6-O-(carboxyethylidene)glycosides (eg. B)



Tetrahedron Lett.30,1401(1989)

PREPARATION AND USE OF BIOTINYLATED LIGANDS FOR LHRH RECEPTOR PURIFICATION.

Christine M. Bladon, Rory Mitchell and Sally-Ann Ogier, MRC Brain Metabolism Unit, 1 George Square, Edinburgh, EH8 9JZ.



Tetrahedron Lett.30,1405(1989)

MILD HYDROGENOLYSIS PROCESS BY CATALYTIC TRANSFER HYDROGENATION

A.Bianco, P.Passacantilli and G.Righi
Centro di Studio CNR per la Chimica delle Sostanze Organiche Naturali
Dipartimento di Chimica - Universita 'La Sapienza'- P.le A.Moro 5 Roma

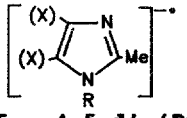
A facile hydrogenolysis of allylic acetates with $Pd(OH)_2/C$ and cyclohexene

Tetrahedron Lett.30,1409(1989)

ELECTRON ADDITION TO HALOGEN DERIVATIVES OF IMIDAZOLES

Martyn C.R. Symons[a], W. Russell Bowman[b], and Peter W. Taylor[b]
[a]Department of Chemistry, The University of Leicester, Leicester
[b]Department of Chemistry, University of Technology, Loughborough, Leics.

Electron addition to bromo- and iodo-imidazoles in methanol or MeTHF at 77 K has been observed using e.s.r. spectroscopy to yield σ^* radical anions with the SOMO being primarily the C-hal σ^* orbital.



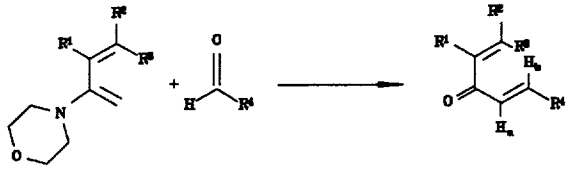
4-, 5-, 4,5-di-(Br & I)

Tetrahedron Lett.30,1413(1989)

A VERY SIMPLE SYNTHESIS OF DIVINYLKETONES

José Barluenga *, Fernando Aznar, Mª Paz Cabal and Carlos Valdés
Departamento de Química Organometálica. Universidad de Oviedo. 33071 Oviedo. Spain

Trisubstituted divinylketones are very easily prepared from 2-morpholinobutadiene and aromatic aldehydes in the presence of Lewis acids.



Tetrahedron Lett.30,1417(1989)

THE REACTION OF DIPHENYL DISELENIDE WITH PEROXYDISULPHATE IONS IN METHANOL. A CONVENIENT PROCEDURE TO EFFECT THE METHOXYSELENENYLATION OF ALKENES.

M. Tiecco, L. Testaferri, M. Tingoli, D. Chianelli, and D. Bartoli
Istituto di Chimica Organica, Facolta' di Farmacia, Universita' di Perugia, Italy.

Methoxyselenenylation of several alkenes was effected, in one step, by oxidation of diphenyl diselenide with ammonium peroxydisulphate in methanol.

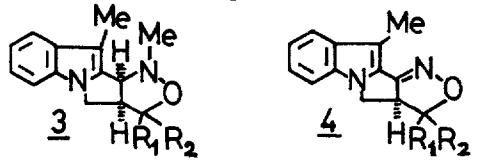
Tetrahedron Lett.30,1421(1989)

SYNTHESIS OF DIHYDRO- AND TETRAHYDROISOXAZOLO[3',4':3,4] PYRROLO[1,2-a]INDOLES VIA INTRAMOLECULAR CYCLOADDITIONS. A NOVEL CLASS OF MITOMYCIN ANALOGUES[1]

Tetrahedron Lett.

Pulak J Bhuyan, Romesh C Boruah and Jagir S Sandhu* Division of Drugs and Pharmaceutical Chemistry, Regional Research Laboratory, Jorhat Pin 785006, India

Dihydro- and tetrahydroisoxazolo[3',4':3,4]pyrrolo[1,2-a]indoles are synthesized via intramolecular nitrone and nitrile oxide cycloadditions.

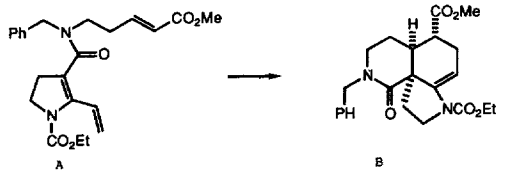


Tetrahedron Lett.30,1423(1989)

SYNTHESIS OF THE FUNCTIONALIZED "TRICYCLIC HEART" OF MANZAMINES

Karel M.J. Brands and Upendra K. Pandit
Organic Chemistry Laboratory, University of Amsterdam, Nieuwe Achtergracht 129, 1018 WS Amsterdam, The Netherlands

The triene A has been synthesized and cyclized via an intramolecular Diels Alder reaction to the strategic tricyclic intermediate (B) of manzamines.

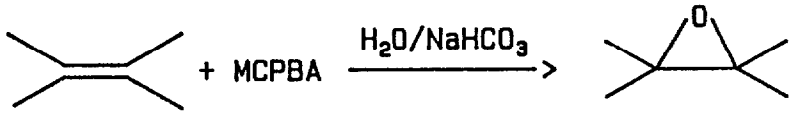


Tetrahedron Lett.30,1427(1989)

EPOXIDATION REACTION WITH
m-CHLOROPEROXYBENZOIC ACID IN WATER

Francesco Fringuelli[a], Raimondo Germani[b], Ferdinando Pizzo[a] and Gianfranco Savelli[b]
[a]Università di Perugia, [b]Università di L'Aquila - Italy -

A new epoxidation procedure is described.

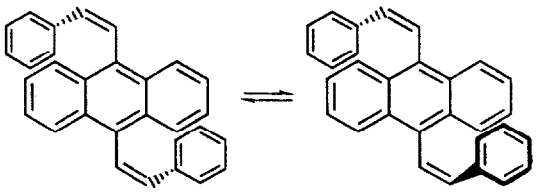


Tetrahedron Lett.30,1429(1989)

A DNMR STUDY OF *SYN/ANTI*-ISOMERIZATION IN *Z,Z*-9,10-BIS(STYRYL)ANTHRACENE.

Mikael Sundahl and Olof Wennerström

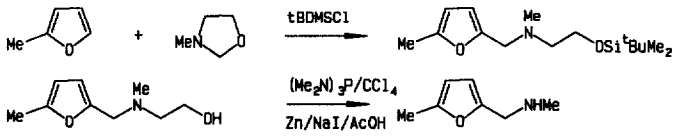
Department of Organic Chemistry,
Chalmers University of Technology,
S-412 96 Göteborg, Sweden



Tetrahedron Lett.30,1433(1989)

MANNICH REACTIONS OF OXAZOLIDINES

R.A.Fairhurst, H.Heaney, G.Papageorgiou, R.F.Wilkins, and S.C.Eyley,
Department of Chemistry, Loughborough University of Technology,
Leicestershire, LE11 3TU



Tetrahedron Lett.30,1437(1989)

TRANSFORMATION OF DAVANONE : REDUCTIVE CLEAVAGE OF TETRAHYDROFURAN AND THERMAL CYCLIZATION OF 1:3-DIENE

L.N.Misra*, A.Chandra and R.S.Thakur
Dept. of Phytochemistry, Central Institute of Medicinal & Aromatic Plants, Lucknow-226016,India

1 After $LiAlH_4$ reduction yielded usual alcohol and 2. The former after dehydration unusually cyclized to afford 3.