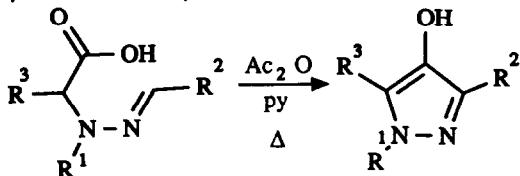


# GRAPHICAL ABSTRACTS

**Tetrahedron Lett.** 29, 1341 (1988)

**THE SYNTHESIS OF 1H-PYRAZOL-4-OLS FROM  
2-(2-ALKYLIDENEHYDRAZINO)ACETIC ACIDS**

Garry M. Pilling, Rebecca H. Bell, and Robert E Johnson\*, Sterling Winthrop  
Research Institute, Rensselaer, NY 12144



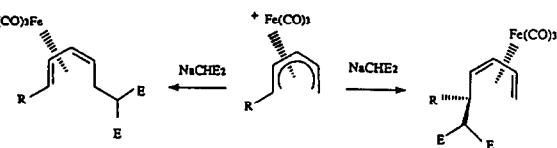
**Tetrahedron Lett.** 29, 1343 (1988)

**(η<sup>5</sup>-1-SUBSTITUTED-PENTADIENYL)(TRICARBONYL)IRON(+1)**

**CATIONS: REACTIVITY WITH MALONATE NUCLEOPHILES**

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

The reaction of 1-substituted pentadienyl iron cations ( $R = Me, Et, n-Pro, Ph, methoxycarbonyl$ ) with dimethylmalonate affords the products from attack at the pentadienyl termini.



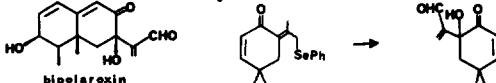
**Tetrahedron Lett.** 29, 1347 (1988)

**SYNTHESIS OF A MONOCYCLIC ANALOGUE OF BIPOLAROXIN, A PHYTOTOXIN OF FUNGAL ORIGIN**

Zev Lidert\*, Simon F. Williams and Andrew B. Holmes

Rohm and Haas Company, Research Division, Spring House, Pennsylvania 19477, USA  
University Chemical Laboratory, Lensfield Rd., Cambridge CB2 1EW, U.K.

A sequence of three reactions leads to an efficient synthesis of a model for bipolaroxin, a newly discovered phytotoxic metabolite from Bipolaris cynodontis.



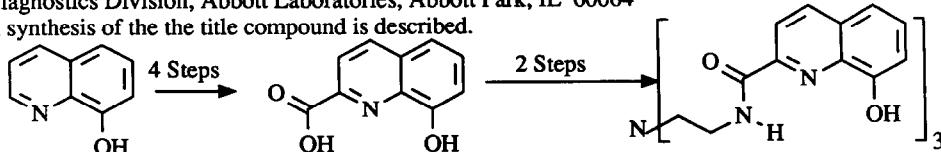
**Tetrahedron Lett.** 29, 1351 (1988)

**SYNTHESIS OF A NOVEL HEXADENTATE CHELATOR BASED ON 8-HYDROXYQUINOLINE**

Tris-N-(2-aminoethyl-[8-hydroxyquinoline-2-carboxamido])amine

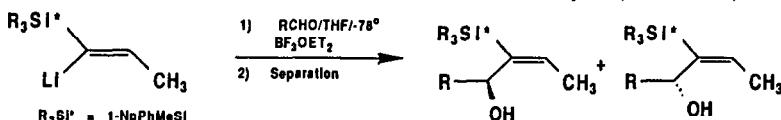
William D. Shrader\*, Joseph Celebuski, Steven J. Kline and David Johnson  
Diagnostics Division, Abbott Laboratories, Abbott Park, IL 60064

A synthesis of the title compound is described.



AN ASYMMETRIC HYDROGEN EQUIVALENT: USE OF THE 1-NAPHTHYLPHENYL-METHYLSILYL GROUP IN THE PREPARATION OF OPTICALLY ACTIVE ALLYL ALCOHOLS AND (S) 1-PHENYL-1,2-BUTADIENE.

Evelyn Torres, Gerald L. Larson\*, Glenn J. McGarvey\* Departments of Chemistry, Universities of Puerto Rico, Rio Piedras, PR 00931 and Virginia, Charlottesville, VA 22901 and Dynamit Nobel Chemicals, Inc. Petrich Systems, Bartram Road, Bristol, PA 19007



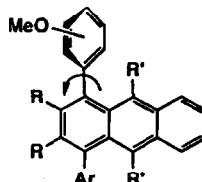
The potential of using a chiral organosilane as a single antipode at silicon in the preparation and separation of diastereomers has been demonstrated.

### SYNTHESIS AND ROTATIONAL BARRIERS OF ARYL-SUBSTITUTED NAPHTHACENE SYSTEMS: FRAMEWORK FOR A RECEPTOR MODEL

Jeffrey A. Dodge and A. Richard Chamberlin\*

Department of Chemistry  
University of California  
Irvine, California 92717

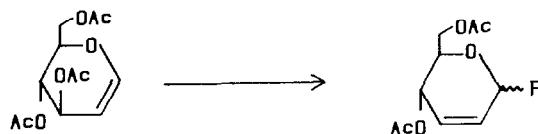
The preparation and barriers to aryl rotation for *ortho* and *meta* tetra-substituted naphthacenes and related systems are described. Rotational barriers were determined either spectroscopically, via coalescence studies, or through the use of an Arrhenius plot.



### REACTION OF GLYCALS WITH PYRIDINIUM POLY(HYDROGEN FLUORIDE) GIVING FERRIER REARRANGED SUGAR FLUORIDES

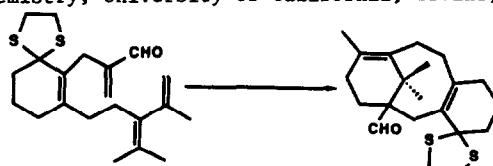
Simon J. P. Macdonald and Thomas C. McKenzie\*  
Department of Chemistry, University of Alabama, Tuscaloosa  
Alabama 35487

Treatment of certain glycals with pyridinium poly(hydrogen fluoride) afford Ferrier rearranged fluorides, which have been characterized by their  $^{19}F$  nmr spectra and the preparation of derivatives.



### SYNTHETIC EFFORTS DIRECTED TOWARDS THE TAXOL SKELETON. THE SATURATED C-RING APPROACH.

K.J. Shea and C.D. Haffner  
Department of Chemistry, University of California, Irvine, CA 92717 USA

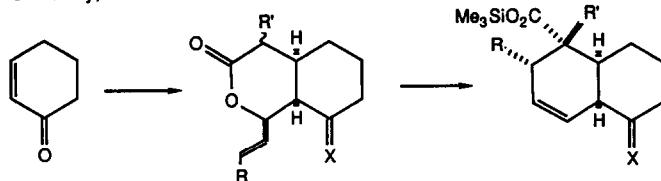


AN APPLICATION OF THE IRELAND REACTION TO THE  
STEREOSPECIFIC SYNTHESIS OF FUSED CARBOCYCLIC RINGS

Tetrahedron Lett. 29, 1371 (1988)

Samuel J. Danishefsky\* and James E. Audia  
Department of Chemistry, Yale University, New Haven CT 06511

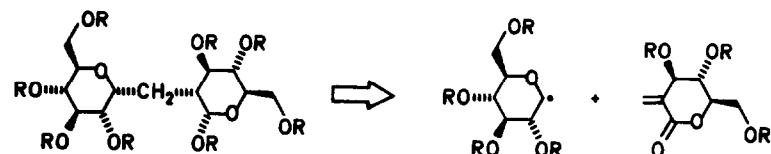
The sequence : group transfer  
Michael addition, aldol /  
lactonization and Claisen  
rearrangement provides  
access to the title compounds.



SYNTHESIS OF METHYLENE BRIDGED C-DISACCHARIDES

Bernd Giese, Monika Hoch, Clemens Lamberth, and Richard R. Schmidt

TH Darmstadt and  
Universität Konstanz,  
Germany



Activation of Reducing Agents. Sodium hydride containing  
Complex Reducing Agents 28. Stereochemistry of reduction  
of ketones by Complex Reducing Agents

Tetrahedron Lett. 29, 1379 (1988)

A. FEHOU LI, Y. FORT, R. VANDERESSE and P. CAUBERE \*

Laboratoire de Chimie Organique I, Associé au CNRS (UA 457), Université de Nancy I, BP 239,  
54506 VANDOEUVRE LES NANCY CEDEX (FRANCE)

It has been established that the selectivity of reduction of selected ketones by  
Complex Reducing Agents is depending on the nature of their constituents and principally  
on that of the metal salt.

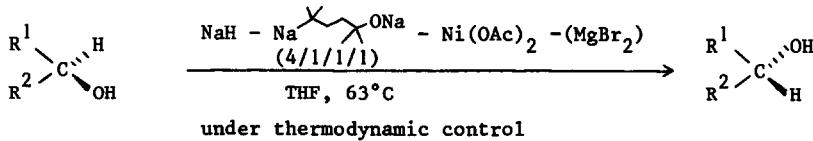


ACTIVATION OF REDUCING AGENTS. SODIUM HYDRIDE CONTAINING  
COMPLEX REDUCING AGENTS 29. EPIMERIZATION OF ALCOHOLS BY  
NICKEL CONTAINING COMPLEX REDUCING AGENTS (NiCRA).

Tetrahedron Lett. 29, 1383 (1988)

G. FEHOU LI, R. VANDERESSE, Y. FORT and P. CAUBERE\*

Laboratoire de Chimie Organique I, associé au CNRS (UA 457), Université de Nancy I, B.P. 239,  
54506 Vandoeuvre-les-Nancy Cédex (France)



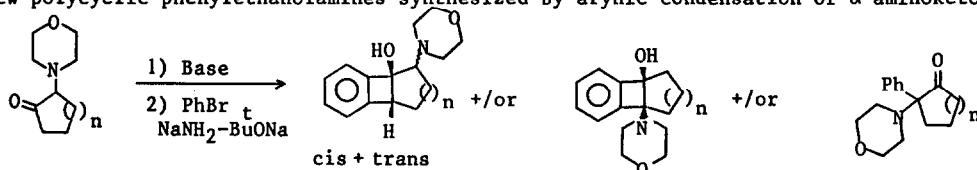
ARYNIC CONDENSATION OF KETONE ENOLATES 19. SYNTHESIS OF POLYCYCLIC PHENYLETHANOLAMINES

Tetrahedron Lett. 29, 1385 (1988)

P. Geoffroy, A. Mouaddib, M.C. Carré and P. Caubère\*

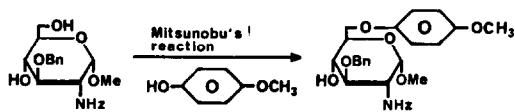
Laboratoire de Chimie Organique I, UA CNRS 457, Université de Nancy I, BP 239,  
54506 Vandoeuvre les Nancy Cedex (France)

New polycyclic phenylethanolamines synthesized by arynic condensation of  $\alpha$  aminoketone enolates.



P-ANISYL ETHERS IN CARBOHYDRATE CHEMISTRY :  
SELECTIVE PROTECTION OF THE PRIMARY ALCOHOL FUNCTION

M. Petitou, P. Duchaussay and J. Choay  
Institut Choay, 75782 Paris Cedex 16, France



A p-anisyl ether can be selectively introduced to protect the primary alcohol function of an hexose. Both introduction and removal proceed in excellent yields.

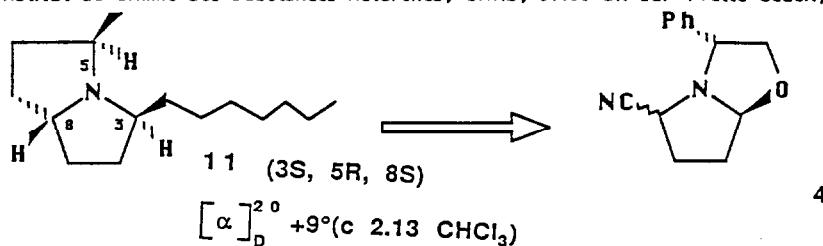
ASYMMETRIC SYNTHESIS XIV<sup>1</sup> : A SHORT AND EFFICIENT SYNTHESIS OF 3,5-DISUBSTITUTED PYRROLIZIDINE ALKALOIDS VIA

Tetrahedron Lett. 29, 1391 (1988)

THE CN(R,S) METHOD<sup>2</sup>

S. ARSENINYADIS, P.Q. HUANG and H.-P. HUSSON\*

Institut de Chimie des Substances Naturelles, CNRS, 91198 Gif-sur-Yvette Cedex, France



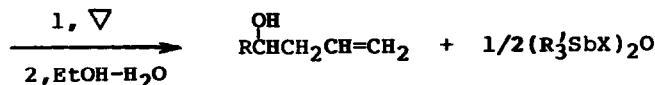
BARBIER-TYPE REACTION WITH TRIALKYLSTIBINE

Tetrahedron Lett. 29, 1395 (1988)

Chen Chen, Yanchang Shen and Yao-Zeng Huang\*

Shanghai Institute of Organic Chemistry, Academia Sinica,

345 Lingling Lu, Shanghai, China



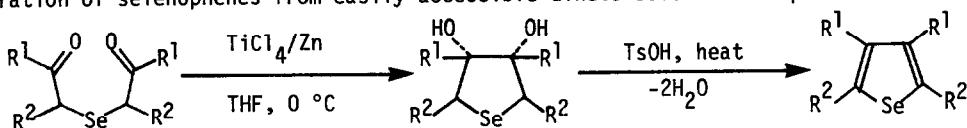
A NOVEL SYNTHESIS OF SELENOPHENES

Tetrahedron Lett. 29, 1399 (1988)

Juzo Nakayama,\* Fumito Murai, Masamatsu Hoshino  
and Akihiko Ishii

Department of Chemistry, Faculty of Science, Saitama University, Urawa, Saitama 338, Japan

Preparation of selenophenes from easily accessible diketo selenides is presented.



THE STRUCTURES OF SULFOMYCIN I AND BERNINAMYCIN A

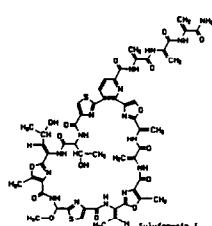
Tetrahedron Lett. 29, 1401 (1988)

Hiroshi Abe,\*<sup>a</sup> Katsuhiko Kushida,<sup>b</sup> Yoshinori Shiobara,<sup>c</sup> and  
Mitsuaki Kodama<sup>c</sup>

<sup>a</sup> Organic Chemistry Research Laboratory, Tanabe Seiyaku Co., Ltd.,  
Toda, Saitama 335, Japan

<sup>b</sup> Varian Instruments Ltd., Shinjuku-ku, Tokyo 160, Japan

<sup>c</sup> Faculty of Pharmaceutical Sciences, Tokushima Bunri University,  
Yamashiro-cho, Tokushima 770, Japan

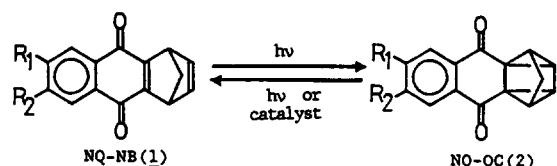


PHOTOCYCIALIZATION OF NORBORNADIENES  
FUSED WITH QUINONE UNITS

Tetrahedron Lett. 29, 1405 (1988)

T. Suzuki, Y. Yamashita\*, T. Mukai,  
and T. Miyashi

Department of Chemistry, Faculty of  
Science, Tohoku University, Aramaki,  
Sendai 980, Japan



On irradiation with visible light,  
(1) isomerize quantitatively to (2). [Φ at 460 nm : 0.14 - 0.21]

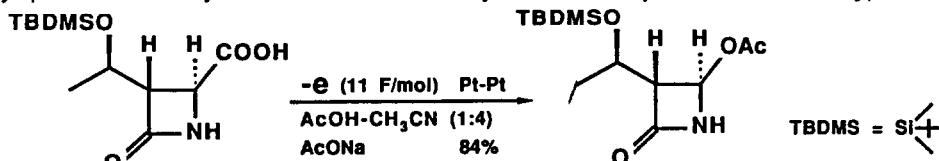
NEW SYNTHESIS OF 4-ACETOXY-2-AZETIDINONES  
BY USE OF ELECTROCHEMICAL OXIDATION

Tetrahedron Lett. 29, 1409 (1988)

Miwako Mori\*, Katsuji Kagechika, Koh Tohjima, and Masakatsu Shibasaki\*

Faculty of Pharmaceutical Sciences, Hokkaido University, Sapporo 060, Japan

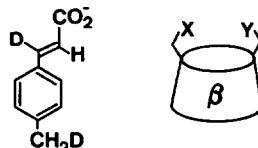
Optically pure 4-acetoxy-2-azetidinone was synthesized by use of Kolbe-type electrolysis.



DYNAMIC MOLECULAR MOTIONS OF GUEST MOLECULE INCLUDED  
IN MODIFIED  $\beta$ -CYCLODEXTRINS

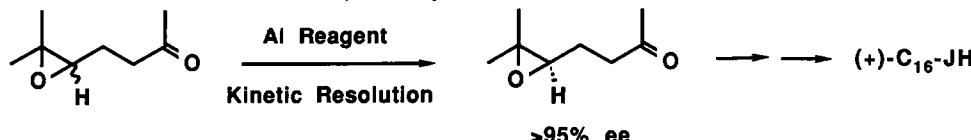
Iwao Tabushi, Yasuhisa Kuroda\* and Masahiko Yamada  
Department of Synthetic Chemistry, Kyoto University, Sakyo-ku Yoshida, Kyoto 606, Japan

Dynamic molecular motions of p-methylcinnamic acid included into modified  $\beta$ -cyclodextrins were measured by the deuterium quadrupolar relaxation method.



A NEW SYNTHETIC ROUTE TO JUVENILE HORMONE. KINETIC  
RESOLUTION OF EPOXIDES USING ORGANOALUMINUM REAGENT

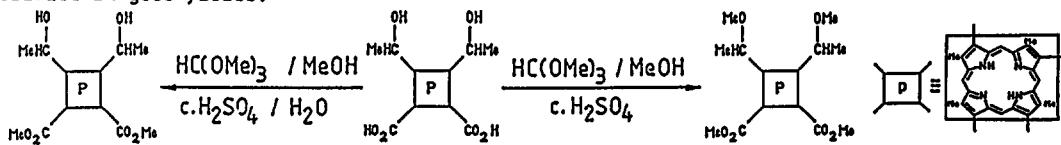
Yuji Naruse, Toru Esaki, and Hisashi Yamamoto\*  
Department of Applied Chemistry, Nagoya University,  
NAGOYA, 464 JAPAN



A FACILE PORPHYRIN ESTERIFICATION/ETHERIFICATION PROCEDURE

Christopher J. Byrne and A. David Ward\*  
Department of Organic Chemistry, University of Adelaide, P.O. Box 498, South Australia, 5001.

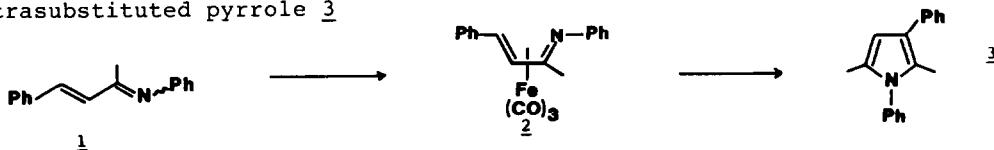
1-Hydroxyethyl and carboxylic acid containing porphyrins can be rapidly esterified or etherified/etherified in good yields.



PYRROLE FORMATION FROM A (1-AZABUTADIENE)-  
TRICARBONYL(0) COMPLEX

Timothy N. Danks and Susan E. Thomas  
Department of Chemistry, University of Warwick, Coventry CV4 7AL, England

Complex 2 reacts smoothly with methyl-lithium to give the 1,2,3,5-tetrasubstituted pyrrole 3



Tetrahedron Lett. 29, 1421 (1988)

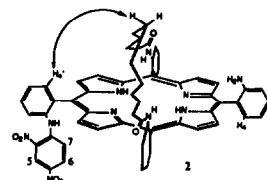
Tetrahedron Lett. 29, 1413 (1988)

Tetrahedron Lett. 29, 1417 (1988)

APPLICATION OF NUCLEAR OVERHAUSER ENHANCEMENT  
TECHNIQUES TO THE STRUCTURAL CHARACTERISATION  
OF "STRAPPED" PORPHYRINS

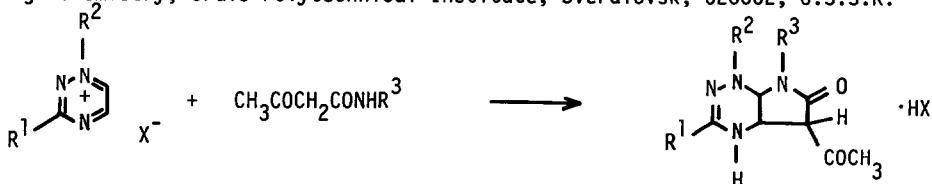
Patrick Perlmutter\*, Mark Rose and Philip Shehan,  
Chemistry Department, Monash University,  
Clayton, 3168, Victoria, Australia

Application of NOE techniques has enabled the structures of various atropisomeric "strapped" tetraarylporphyrins, e.g. 2, to be unambiguously defined.



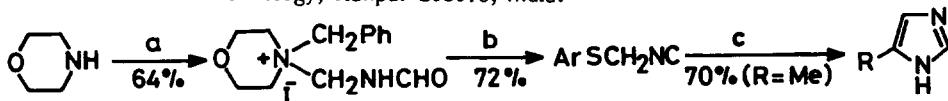
CYCLIZATION OF 1,2,4-TRIAZINIUM SALTS WITH BIFUNCTIONAL  
NUCLEOPHILES - A NEW ROUTE TO CONDENSED 1,2,4-TRIAZINES

S.G. Alexeev, V.N. Charushin, O.N. Chupakhin\* and G.G. Alexandrov  
Lab. Org. Chemistry, Urals Polytechnical Institute, Sverdlovsk, 620002, U.S.S.R.



A CONVENIENT SYNTHESIS OF 2-THONAPHTHYLMETHYL  
ISO CYANIDE : A USEFUL REAGENT FOR METHYL ISOCYANIDE TRANSFER

S. Ranganathan and W.P. Singh, Department of Chemistry  
Indian Institute of Technology, Kanpur 208016, India.



a.i. formalin, formamide  
ii,benzyl iodide, chloroform

b.i.2-thionaphthol,

Et<sub>3</sub>N·PhH

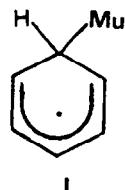
ii.PPh<sub>3</sub>, CCl<sub>4</sub>, Et<sub>3</sub>N, CHCl<sub>3</sub>

c.i.n-BuLi,-78°C,RCN,THF

ii.W-6 Ni, ETOH,rt, 5h

AN INVESTIGATION OF CAPTO-DATIVE INTERACTIONS IN  
MUONATED CYCLOHEXADIENYL RADICALS.

Christopher J. Rhodes,\*  
School of Chemistry, Thames Polytechnic, Wellington Street,  
Woolwich, London. SE18 6PF., U.K.  
Emil Roduner,  
Physikalisch-Chemisches Institut der Universitat Zurich,  
CH-8057, Zurich, Switzerland.

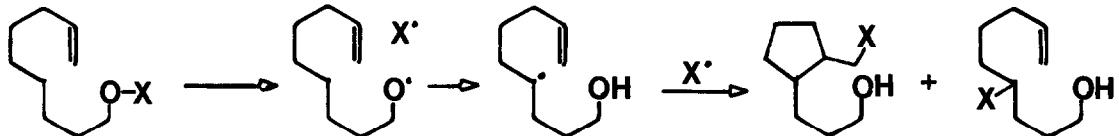


An investigation has been made of capto-dative substituent  
effects in muonated cyclohexadienyl radicals (I).

INTRAMOLECULAR CYCLIZATION OF ALKENYL RADICALS GENERATED  
BY 1,5-HYDROGEN TRANSFER TO ALKOXY RADICALS

Živorad Čeković\* and Dimitar Ilijev

Department of Chemistry, Faculty of Sciences, University of Belgrade, Studentski trg 16  
11001 Belgrade, and Faculty of Pedagogy, University of Osijek, Osijek, Yugoslavia

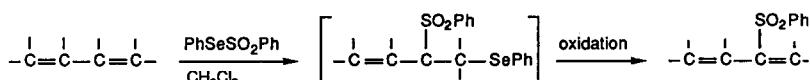


SELENOSULFONATION OF 1,3-DIENES: ONE-POT SYNTHESIS OF  
2-(PHENYLSULFONYL)-1,3-DIENES

Jan-E. Bäckvall,\* Carmen Najera, and Miguel Yus

Department of Organic Chemistry, University of Uppsala, Box 531, 751 21 Uppsala, Sweden

A one-pot synthesis of 2-(phenylsulfonyl)1,3-dienes was developed

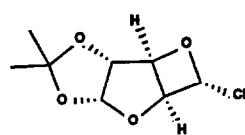


SYNTHESIS AND X-RAY CRYSTAL STRUCTURE  
OF A STABLE  $\alpha$ -CHLOROOXETANE

G.W.J.Fleet,<sup>a</sup> J.C.Son,<sup>a</sup> J.M.Peach<sup>a</sup> and T.A.Hamor<sup>b</sup>

<sup>a</sup>Dyson Perrins Laboratory, South Parks Road,  
Oxford OX1 3QY <sup>b</sup>Chemical Crystallography Laboratory,  
9, Parks Road, Oxford

The Barton modification of the Hunsdiecker reaction is the key step in the preparation of 3,5-anhydro-5R-chloro-1,2-O-isopropylidene-xylofuranose (1), a stable  $\alpha$ -chlorooxetane.

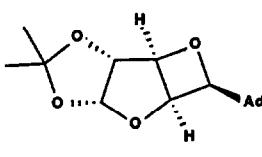


REACTION OF ADENINE WITH AN  $\alpha$ -CHLOROOXETANE: AN APPROACH TO THE SYNTHESIS OF OXETANE NUCLEOSIDES

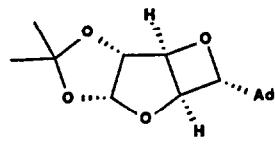
G.W.J.Fleet,<sup>a</sup> J.C.Son,<sup>a</sup> K.Vogt,<sup>a</sup> J.M.Peach<sup>a</sup> and T.A.Hamor<sup>b</sup>

<sup>a</sup>Dyson Perrins Laboratory, South Parks Road,  
Oxford OX1 3QY <sup>b</sup>Chemical Crystallography Laboratory,  
9, Parks Road, Oxford

Nucleophilic displacement of chloride by adenine from a stable  $\alpha$ -chlorooxetane, gives the epimeric oxetane nucleosides analogues (1) and (2).

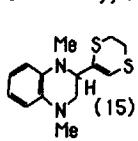
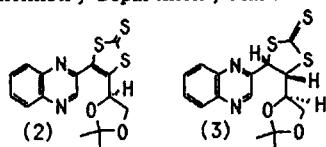


(Ad = Adenine)



SYNTHESIS OF 1-(QUINOXALIN-2-YL)-  
ALKANE-1,2-DITHIOLS AND -ALKENE-1,2-DITHIOLS  
OF RELEVANCE TO THE MOLYBDOENZYME COFACTOR, Moco

Lesley Larsen, David J. Rowe, C. David Garner, and John A. Joule\*  
Chemistry Department, Manchester University, Manchester M13 9PL, U.K.



Syntheses are described of quinoxalines (2) and (3), and tetrahydroquinoxaline (15), as models for the pterin which is believed to ligand molybdenum in the oxomolybdoenzymes cofactor, Moco.

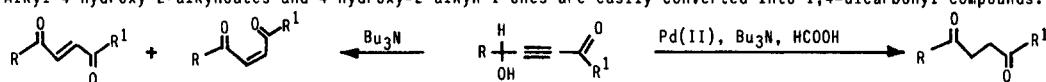
THE REACTION OF ALKYL 4-HYDROXY-2-ALKYNOATES AND 4-HYDROXY-2-ALKYN-1-ONES WITH PALLADIUM TRIBUTYLAMMONIUM FORMATE AND WITH TRIBUTYLAMINE:

PREPARATION OF 1,4-DICARBONYL COMPOUNDS.

A. Arcadi<sup>a</sup>, S. Cacchib, F. Marinelli<sup>a</sup>, D. Misiti<sup>b</sup>

<sup>a</sup> Dip. Chimica, Ing. Chimica e Materiali, Università degli Studi, Via Assergi 4, 67100 L'Aquila (Italy); <sup>b</sup> Dip. Studi Chimica e Tecn. delle Sostanze Biologicamente Attive, Università "La Sapienza", P.le A. Moro 5, 00185 Roma (Italy)

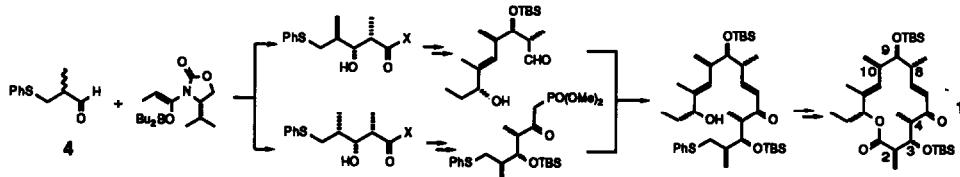
Alkyl 4-hydroxy-2-alkynoates and 4-hydroxy-2-alkyn-1-ones are easily converted into 1,4-dicarbonyl compounds.



STUDIES IN MACROLIDE SYNTHESIS:

A CONCISE ASYMMETRIC SYNTHESIS OF A MACROLIDE INTERMEDIATE FOR THE ERYTHRONOLIDES.  
Ian Paterson,\* David D. P. Laffan, David J. Rawson, University Chemical Laboratory, Lensfield Road, Cambridge CB2 1EW, UK.

The enantiomerically-pure 14-membered ring macrolide 1 is prepared in 14 steps from the racemic aldehyde 4.



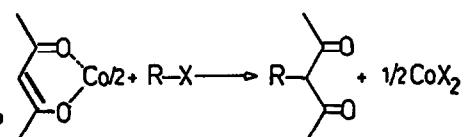
A DUAL MECHANISTIC PATHWAY IN THE ALKYLATION OF PENTANE-2,4-DIONE THROUGH ITS Co(II) COMPLEX

Tetrahedron Lett. 29, 1465 (1988)

J. Marquet, M. Moreno-Mañas, P. Pacheco, A. Vallribera

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Bellaterra. 08193-Barcelona. Spain.

Co(II) induces a non radical chain mechanism in the title alkylation. An electron transfer initiates the process. A mechanistic proposal is made based on the study of galvinoxyl and externally added Co effects and in the isolation of radical dimers.



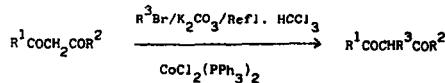
COBALT(II) CHLORIDE BISTRIPHENYLPHOSPHINE CATALYZED  
ALKYLATION OF  $\beta$ -DICARBONYL COMPOUNDS

Tetrahedron Lett. 29, 1469 (1988)

A. González, J. Marquet, M. Moreno-Mañas

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Bellaterra. 08193-Barcelona. Spain.

The alkylation of several  $\beta$ -dicarbonyl compounds  
with sensitive alkyl halides in the indicated con-  
ditions is accelerated by the presence of  $\text{CoCl}_2(\text{Ph}_3\text{P})_2$



A HIGHLY SELECTIVE METHOD FOR THE SYNTHESIS  
OF PHENYLACETALDEHYDE

Tetrahedron Lett. 29, 1471 (1988)

G. Paperutto,\* G. Gregorio\*  
\*Montedipe S.p.A., \*Montefluos S.p.A.  
Research Centre of Bollate  
20021 Bollate MI ITALY

Phenylacetaldehyde is synthesized  
in gas phase using H-ZSM-5.  
Silicalite and silica gels as catalysts

