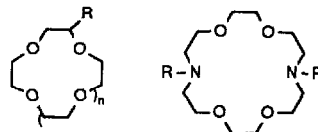


*Tetrahedron Lett.* 1992, 33, 3825

**Estimation of Cation Binding Properties in Crown and Lariat Ether Complexes using Fast Atom Bombardment Mass Spectrometry**

Toshio Takahashi,\* Akira Uchiyama, Kaoru Yamada, Bert C. Lynn, and George W. Gokel\*  
Lion Corporation, 7-13-12, Hirai, Edogawa-ku, Tokyo 132, Japan and  
Department of Chemistry, University of Miami, Coral Gables, FL 33124 U.S.A.

The complexation behavior of crown and lariat ethers with alkali metal ions has been assessed by FAB-mass spectrometry and shown to correlate semi-quantitatively with solution phase results.

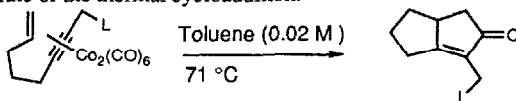


*Tetrahedron Lett.* 1992, 33, 3829

**ACCELERATION OF THE THERMAL PAUSON-KHAND REACTION BY COORDINATING LIGANDS**

Marie E. Krafft,\* Ian L. Scott and Romulo H. Romero  
Department of Chemistry, The Florida State University, Tallahassee, FL 32306-3006

Coordinating ligands in the homo- or bishomopropargylic position of a 1,6-enyne have been shown to increase the rate of the thermal cycloaddition.



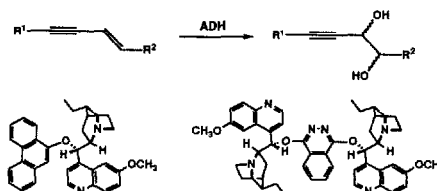
*Tetrahedron Lett.* 1992, 33, 3833

**ASYMMETRIC DIHYDROXYLATION OF ENYNES**

Kyu-Sung Jeong, Peter Sjö, and K. Barry Sharpless\*

Department of Chemistry, Massachusetts Institute of Technology, Cambridge, Massachusetts 02139, USA  
Department of Chemistry, The Scripps Research Institute, La Jolla, California 92037, USA

Catalytic Asymmetric dihydroxylations of 1,3-enynes were studied using PHN-DHQD and (DHQD)<sub>2</sub>-PHAL.



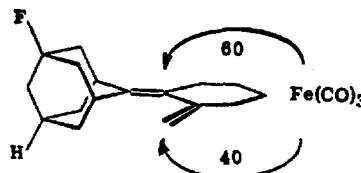
*Tetrahedron Lett.* 1992, 33, 3837

**THE ELECTRONIC FACTOR IN THE FACE SELECTION OF IRON TRICARBONYL COMPLEXATION**

Ashis Mukherjee, Elise M. M. Venter and W. J. le Noble\*  
Department of Chemistry, State University of New York, Stony Brook, NY 11794

William H. Watson and Ram P. Kashyap  
Department of Chemistry, Texas Christian University, Box 32908, Fort Worth, Texas 76129

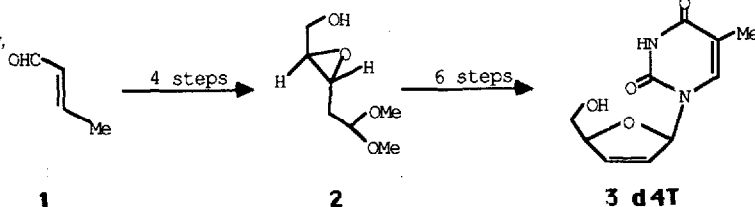
The face selected by the iron tricarbonyl moiety in its complexation with a diene can be influenced by remote substitution.



**SYNTHESIS OF ANTIVIRAL NUCLEOSIDES  
FROM CROTONALDEHYDE. PART 3. TOTAL  
SYNTHESIS OF DIDEHYDRODIDEOXYTHYMIDINE (d4T)**

Michael E. Jung\* and John M. Gardiner\*  
Department of Chemistry & Biochemistry,  
University of California at Los Angeles,  
Los Angeles, California 90024

Epoxyalcohol 2, derived from  
crotonaldehyde, 1, is elaborated  
to d4T, 3, in 6 further steps

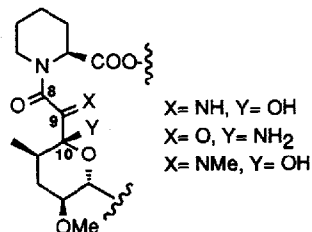


**C9-IMINO AND C10-AMINO DERIVATIVES OF ASCOMYCIN  
(21-ETHYL-FK 506)**

P. Nussbaumer\*, M. Grassberger, G. Schulz

SANDOZ Forschungsinstitut Wien, Brunnerstrasse 59, 1235 Wien, Austria

Unprotected Ascomycin reacts readily with  $\text{NH}_3/\text{MeOH}$  at the masked  
tricarbonyl system to give C9-imino- and C10-amino-Ascomycin,  
whereas treatment with  $\text{MeNH}_2$  yields only the C9-methylimine.

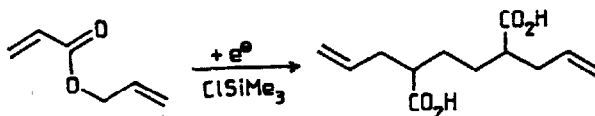


**ELECTROCHEMICAL REDUCTIVE DIMERIZATION AND  
CLAISEN REARRANGEMENT OF ALLYL ACRYLATES**

T. Troll and J. Wiedemann

Institut für Organische Chemie der Universität Regensburg,  
Universitätsstraße 31, D-8400 Regensburg

Dimerization and silylation lead to  
bis-ketene acetals which rearrange to  
C-allyl derivatives

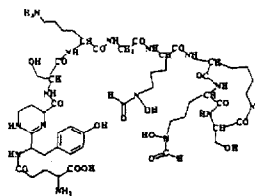


**Bacterial Siderophores: The Structure of a Desferriferri-  
bactin Produced by *Pseudomonas fluorescens* ATCC 13525**

C. Linget<sup>a</sup>, D. G. Stylianou<sup>b</sup>, A. Dell<sup>b</sup>, R. E. Wolff<sup>a</sup>, Y. Piémont<sup>c</sup> and M. A. Abdallah<sup>a</sup>

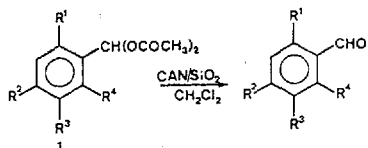
a) Laboratoire de Chimie Microbienne, ULP, 1 rue Blaise Pascal, F-67008-Strasbourg, (France). b) Dept of Biochemistry,  
I.C. London SW7 2AZ, U.K. c) Laboratoire de Bactériologie, ULP, 3 rue Koeberlé, F-67000-Strasbourg.

The structure of desferriferribactin Pf ATCC 13525, a plausible  
precursor of pyoverdins Pf ATCC 13525 excreted by  
*Pseudomonas fluorescens* ATCC 13525 was elucidated using  
FAB-MS and 2D NMR techniques: It is a partly cyclic peptide  
containing a thirteen-membered ring at one end and an amidine-  
type amino acid TyrCTHPMD (Tyr/Dab) at the other end.



**DEPROTECTION OF BENZALDEHYDE DIACETATES BY CERIC AMMONIUM NITRATE COATED ON SILICA**

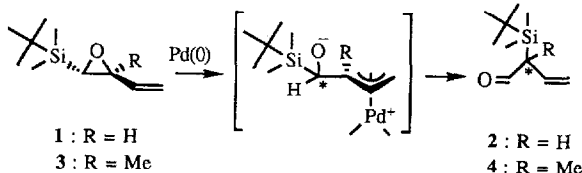
 Philippe Cotelle and Jean-Pierre Catteau  
 Laboratoire de Chimie Organique Physique associé au CNRS  
 US7L, 59655 Villeneuve d'Ascq - FRANCE

 Benzaldehyde diacetates **1** were selectively converted to the corresponding benzaldehydes using Ceric Ammonium Nitrate coated on silica in dichloromethane.

**Palladium(0)-Catalyzed Rearrangement of Silicon Substituted Vinyloxiranes. Enantiocontrolled Preparation of  $\alpha$ -Tertiobutyldimethylsilyl- $\beta,\gamma$ -Unsaturated Aldehydes.**

Fabienne Gilloir, Max Malacria\*

Université P. et M. Curie, Laboratoire de Chimie Organique de Synthèse, associé au CNRS, 4 Place Jussieu, F-75252 Paris cédex 05, France.

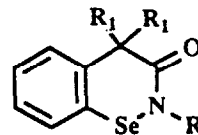
Palladium(0)-catalyzed rearrangement of silicon substituted vinyloxiranes occurred with a high stereoselectivity and in a very good chemical yield.


**SYNTHESIS OF 2H-3,4-DIHYDRO-1,2-BENZOSELENAZIN-3-ONE AND DERIVATIVES: A NEW HETEROCYCLIC RING SYSTEM**

 P.V.Jacquemin<sup>a</sup>, L.E.Christiaens<sup>a</sup>, M.J.Renson<sup>a</sup>, M.J.Evers<sup>b</sup> and N.Dereu<sup>b</sup>.

<sup>a</sup>Heterocyclic Organic Chemistry, University of Liège, Sart-Tilman, B-4000 Liège, Belgium

<sup>b</sup>Rhône-Poulenc Rorer, CRVA  
 F-94403 Vitry-sur-Seine, France

 a: R<sub>1</sub>=H  
 b: R<sub>1</sub>=CH<sub>3</sub>  
 c: R=H  
 d: R=CH<sub>3</sub>  
 e: R=CH<sub>2</sub>C<sub>6</sub>H<sub>5</sub>  
 f: R=C<sub>6</sub>H<sub>5</sub>

**6a,c-f and 6b,c-f**

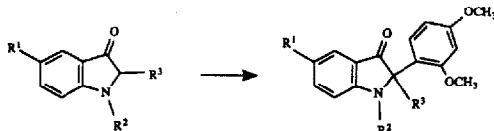
 The synthesis of the hitherto unknown *homoebsele*n derivatives **6a,b** is described

**ARYLATION OF 3-OXO-2,3-DIHYDROINDOLES WITH ARYLLEAD TRIACETATES**

Jean-Yves Méroux\* and Lucien Chichereau, L.C.B.A. Université d'Orléans, B.P. 6759, 45067 Orléans Cedex 2, France.

Jean-Pierre Finet, Laboratoire S.R.E.P. Faculté des Sciences St Jérôme 13397 Marseille Cedex 13, France.

Arylation of 2-alkoxycarbonyl-3-oxo-2,3-dihydroindoles or 1-substituted -3-oxo-2,3-dihydroindoles with aryllead triacetates lead to direct C-2 arylation.

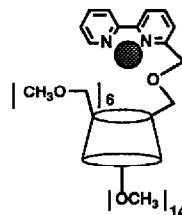


**A New Class of Photo- and Electro-active Receptors :  
Synthesis of a 2,2'-Bipyridyl Ligand Functionalized  $\beta$ -Cyclodextrin  
and its Ir(III), Rh(III) and Re(I) complexes.**

Nadia Brügger,<sup>a</sup> Robert Deschenaux,<sup>a</sup> Thomas Ruch<sup>a</sup> and Raymond Ziessel<sup>b</sup>

<sup>a</sup>Université de Neuchâtel, Institut de Chimie, Av. de Bellevaux 51,  
2000 Neuchâtel, Switzerland.

<sup>b</sup>Ecole Européenne des Hautes Etudes des Industries Chimiques  
de Strasbourg, 1 rue Blaise Pascal, 67008 Strasbourg, France.

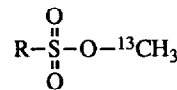


**<sup>13</sup>C-Enriched Methyl Alkanesulfonates: New Lipophilic  
Methylating Agents for the Identification of Nucleophilic  
Amino Acids of Proteins by NMR.**

Jean-Pierre Lepoitevin\* and Claude Benzra

Laboratoire de Dermatochimie, Clinique Dermatologique, CHU, F-67091 Strasbourg, France.

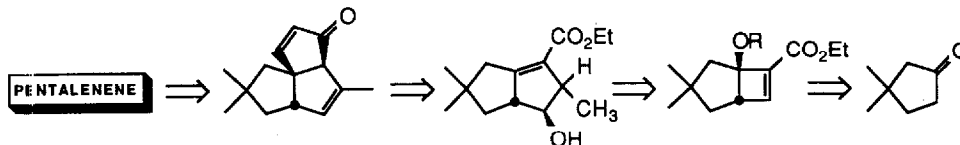
<sup>13</sup>C labelled methyl alkylsulfonates were used as NMR probes, in association with DEPT <sup>13</sup>C{<sup>1</sup>H} and 2D reversed [<sup>1</sup>H,<sup>13</sup>C] correlation NMR for the identification of nucleophilic residues of proteins. This allows to visualize the nature of the reactive amino acids and to distinguish between lysine and histidine nucleophilic residues.



**Synthesis of the Angular Triquinane ( $\pm$ )-Pentalenene  
via Small Ring Intermediates.**

Michel Franck-Neumann\*, Michel Miesch, Laurence Gross

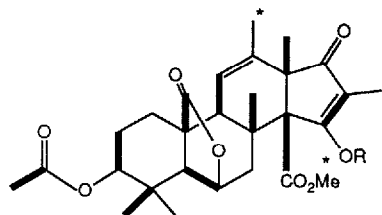
Laboratoire de Chimie Organique Synthétique, associé au CNRS, Institut de Chimie, Université Louis Pasteur,  
1, rue Blaise Pascal 67000 - Strasbourg (France).



**BIOSYNTHESIS OF CITREOHYBRIDONES, THE METABOLITES OF A HYBRID  
STRAIN KO 0031 DERIVED FROM *PENICILLIUM CITREO-VIRIDE* B.  
IFO 6200 AND 4692**

S. Kosemura, H. Miyata, K. Matsunaga, and S. Yamamura  
Dept of Chem, Faculty of Science and Technology, Keio University,  
Hiyoshi, Yokohama 223, Japan

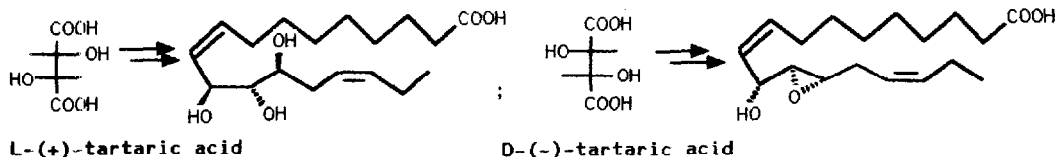
Biosynthesis of citreohybridonol using <sup>13</sup>CH<sub>3</sub>-CO<sub>2</sub>Na and H<sup>13</sup>CO<sub>2</sub>Na(\*C)



**STEREoselective SYNTHESes OF TWO CONSTITUENTS AGAINST RICE BLAST DISEASE**

Wen-Lian Wu and Yu-Lin Wu\*

State Key Laboratory of Bio-Organic and Natural Products Chemistry, Shanghai Institute of Organic Chemistry, Shanghai 200032, China.



**Synthesis of Some Thiophosphate Analogues (C-S-P) of Phosphatidylinositol**

M. A. Alisi, M. Brufani, L. Filocamo\*, G. Gostoli, S. Lappa

Dipartimento di Scienze Biochimiche "A. Rossi Fanelli", Università di Roma "La Sapienza", Via degli Apuli 9, 00185 Roma (Italy)

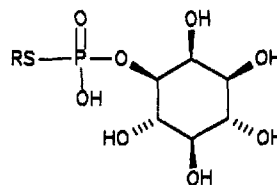
S. Maiorana

Dipartimento di Chimica Organica e Industriale, Università di Milano, Via Venezian 21, 20133 Milano (Italy)

M. C. Cesta, E. Ferrari, P. Pagella

Mediolanum Farmaceutici S.p.a., Via S. G. Cottolengo 31, 20143 Milano (Italy)

A series of phosphothiolates analogues of phosphatidylinositol was synthesised with the aim of obtaining phospholipase C inhibitors.

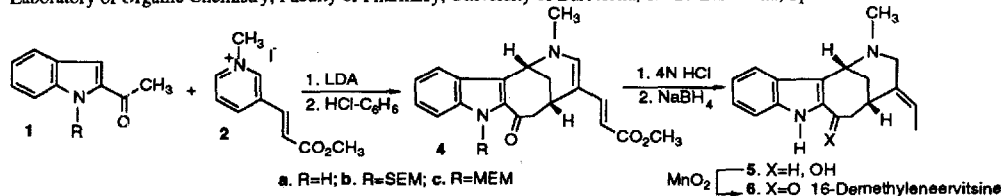


**A STRAIGHTFORWARD ENTRY TO THE ERVITSINE SKELETON.**

**SYNTHESIS OF 16-DEMETHYLENERVITSINE**

M.-Lluisa Benrasar, Ester Zulaica, Bernat Vidal, and Joan Bosch\*

Laboratory of Organic Chemistry, Faculty of Pharmacy, University of Barcelona, 08028-Barcelona, Spain

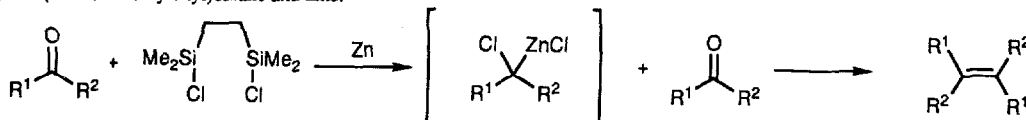


**AN IMPROVED METHOD FOR THE GENERATION OF ORGANOZINC CARBENOIDs AND ITS APPLICATION IN DICARBONYL COUPLING REACTIONS.**

Carlos A. M. Afonso, William B. Motherwell,\* Dennis M. O'Shea and Lee R. Roberts,

Department of Chemistry, Imperial College of Science, Technology and Medicine, South Kensington, London SW7 2AY, U.K.

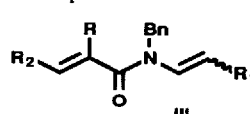
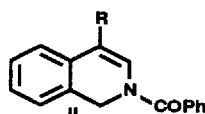
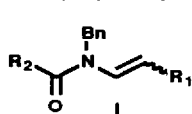
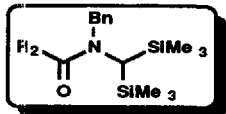
Reductive coupling of aromatic aldehydes or  $\alpha,\beta$ -unsaturated carbonyl compounds can be achieved using 1,2-bis(chlorotrimethylsilyl)ethane and zinc.



**FLUORIDE ION MEDIATED PETERSON ALKENATION OF N-[C,C-bis(TRIMETHYLSILYL)METHYL]AMIDO DERIVATIVES WITH CARBONYL COMPOUNDS: A SHORT GENERAL ROUTE TO ENAMIDES AND 1,2-DIHYDROISOQUINOLINES**

Claudio Palomo\*, Jesus M. Aizpurua, Marta Legido, Jean Paul Picard, Jacques Dunogues, Thierry Constantieux.  
Departamento de Química Orgánica. Facultad de Química. Universidad del País Vasco. Aptdo 1072. 20080. San Sebastián. Spain

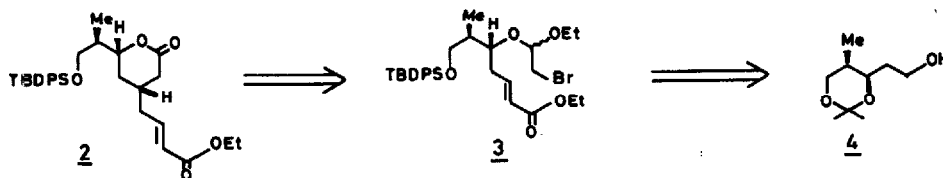
The straightforward general access to diversely substituted acyclic(I) or cyclic (II) enamides and dienamides (III) is accomplished taking advantage of the dual bias of N-[C,C-bis(trimethylsilyl)methyl]amides as  $\alpha$ -amido carbanion or enolate promoters.



**Radical Mediated Enantioselective Construction of C-1 to C-9 Segment of Rhizoxin**

A V Rama Rao\*, G V M Sharma and Manjunath N Bhanu  
Indian Institute of Chemical Technology, Hyderabad 500 007, India

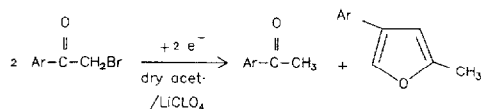
Synthesis of C-1 to C-9 segment of Rhizoxin is described.



**ELECTROSYNTHESIS OF 4-ARYL-2-METHYLFURANS**

Fructuoso Barba\* and José Luis de la Fuente  
Dept. of Organic Chemistry, University of Alcalá de Henares, Madrid, Spain

The electrochemical reduction on Hg cathode of a dropping solution of phenacyl bromides in dry acetone-LiClO<sub>4</sub> yields 4-aryl-2-methylfurans and acetophenones.

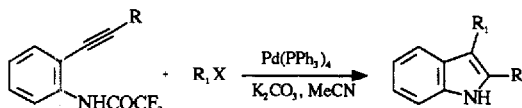


**A VERSATILE APPROACH TO 2,3-DISUBSTITUTED INDOLES THROUGH THE PALLADIUM-CATALYSED CYCLIZATION OF o-ALKYNYLTRIFLUOROACETANILIDES WITH VINYL TRIFLATES AND ARYL HALIDES.**

Antonio Arcadi,<sup>a</sup> Sandro Cacchi,<sup>b\*</sup> Fabio Marinelli<sup>a</sup>

<sup>a</sup>Dip. di Chimica, Ingegneria Chimica e Materiali, Università degli Studi, V. Assergi 4, I-67100 L'Aquila, Italy.

<sup>b</sup>Dip. di Studi di Chimica e Tecnologia delle Sostanze Biologicamente Attive, Università degli Studi "La Sapienza", P.le A. Moro 5, I-00185 Roma, Italy.



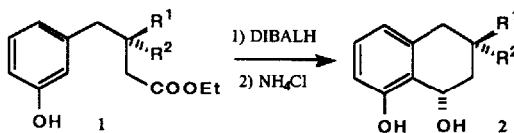
R, X = aryl halide: 80 °C

R, X = vinyl triflate, room temperature

**TANDEM REDUCTION / INTRAMOLECULAR HYDROXY-ALKYLATION OF (3-HYDROXYPHENYL)ALKANOATES: A NEW REGIOSELECTIVE APPROACH TO 1,8-DIHYDROXYTETRALINS**

Giuseppe Guanti,\* Luca Banfi, Enrica Narisano, Renata Riva, and Sergio Thea  
Istituto di Chimica Organica, corso Europa 26, 16132 Genova (Italy).

One-pot regioselective *ortho*-directed intramolecular hydroxy-alkylation of phenols has been achieved by treating phenolic esters of general formula 1 with DIBALH, followed by aqueous work-up. The reaction seems to work particularly well when R<sup>1</sup> and R<sup>2</sup> are ≠ H. This new preparation of 5-unsubstituted-1,8-dihydroxytetralins open the way to new synthetic approaches to the synthesis of pharmacologically important 11-deoxyanthracyclinones.



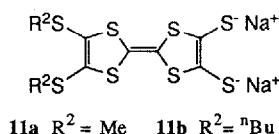
**A STRAIGHTFORWARD APPROACH TO THE SYNTHESIS OF UNSYMMETRICAL TETRATHIOALKYL TETRATHIAFULVALENE DERIVATIVES**

Colin Gemmill,<sup>a</sup> Jeremy D. Kilburn,<sup>a\*</sup> Henning Ueck,<sup>a</sup> and Allan E. Underhill<sup>b</sup>

<sup>a</sup> Department of Chemistry, University of Southampton, Southampton, SO9 5NH, UK

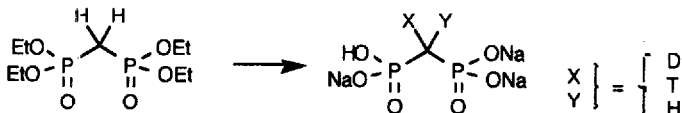
<sup>b</sup> Department of Chemistry, University of Wales, Bangor, Gwynedd, LL57 2UW, UK

Dithiolates 11a and 11b, which are excellent precursors for unsymmetrical tetrathiafulvalene derivatives, have been prepared *via p*-acetoxybenzylthio protected 4,5-dialkylthio-1,3-dithiol-2-ones.



**SYNTHESIS AND HETERONUCLEAR NMR ANALYSIS OF DEUTERIUM- AND TRITIUM-LABELLED METHYLENEBISPHOSPHONIC ACID**

G. Michael Blackburn,\* S.G. Rosenberg,<sup>‡</sup> and Galena M. Yakovleva<sup>§</sup> \*Krebs Institute, Department of Chemistry, University of Sheffield, Sheffield S3 7HF, UK; <sup>‡</sup>Institute of Pharmacology, Russian Academy of Medical Sciences Moscow; and <sup>§</sup>Branch of the Shemyakin Institute of Bioorganic Chemistry, Russian Academy of Sciences Puschino, Moscow Region 142292.



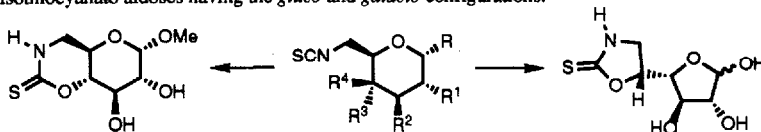
Deuterium and tritium have been substituted into methylenebisphosphonic acid and heteronuclear NMR spectra of the products analysed.

**CHIRAL-2-THIOXOTETRAHYDRO-1,3-O,N-HETEROCYCLES FROM CARBOHYDRATES**

José M. García Fernández, Carmen Ortiz Mellet and José Fuentes\*

Departamento de Química Orgánica, Facultad de Química, Universidad de Sevilla. Apartado de Correos 553. E-41071 Sevilla (Spain)

Chiral five- and six-membered 2-thioxotetrahydro-1,3-*O,N*-heterocycles have been prepared by intramolecular cyclization of 6-deoxy-6-isothiocyanato aldoses having the *gluco* and *galacto* configurations.

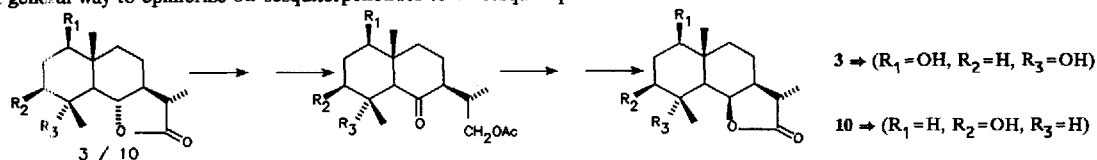


**Partial Synthesis of 6 $\beta$ -Sesquiterpenolides from 6 $\alpha$ -Sesquiterpenolides**

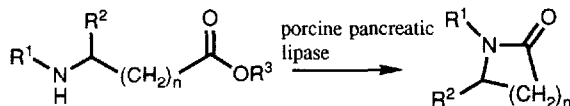
José L. Bretón, I. P. N. O. (C.S.I.C.). La Laguna. Tenerife. Spain.

Juan J. Cejudo, Andrés García-Granados\*, Andrés Parra and Francisco Rivas.

Departamento de Química Orgánica. Facultad de Ciencias. Universidad de Granada. 18071 Granada. Spain.

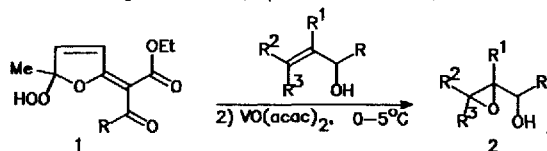
A general way to epimerize 6 $\alpha$ -sesquiterpenolides to 6 $\beta$ -sesquiterpenolides.**PALLADIUM-CATALYSED HYDROXYCARBONYLATION OF VINYL AND ARYL TRIFLATES: SYNTHESIS OF  $\alpha,\beta$ -UNSATURATED AND AROMATIC CARBOXYLIC ACIDS.**Sandro Cacchi,<sup>a\*</sup> Alessandro Lupi<sup>b</sup><sup>a</sup>Dipartimento di Studi di Chimica e Tecnologia delle Sostanze Biologicamente Attive, Università degli Studi "La Sapienza", P.le A. Moro 5, I-00185 Roma, Italy.<sup>b</sup>Centro di Studio del CNR per la Chimica dei Recettori e delle Molecole Biologicamente Attive, c/o Istituto di Chimica, Facoltà di Medicina e Chirurgia "A. Gemelli", Università Cattolica del Sacro Cuore, L.go F. Vito 1, I-00168 Roma, Italy.**ENZYMATIC FORMATION OF LACTAMS IN ORGANIC SOLVENTS**A L. Gutman,<sup>#</sup> E Meyer,<sup>#</sup> X Yue,<sup>§</sup> and C Abell<sup>§</sup><sup>#</sup>Department of Chemistry, Technion -Israel Institute of Technology, Haifa 32000, Israel<sup>§</sup>University Chemical Laboratory, Lensfield Road, Cambridge CB2 1EW, England

PPL in organic solvents catalyses the intramolecular cyclisation of aminoesters and the formation of macrocyclic bislactams

**PHOTO-OXIDATION OF 2-(2-FURYL)-1,3-DICARBONYL COMPOUNDS**

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Hydroperoxides 1, obtained in a very efficient way by photo-oxidation of 2-(2-furyl)-1,3-dicarbonyl compounds have been employed in selective epoxidation of trisubstituted allylic alcohols.