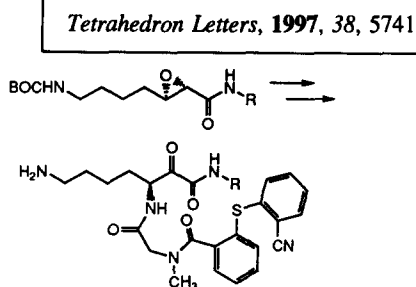


## GRAPHICAL ABSTRACTS

### THE SYNTHESIS OF LYSINE $\alpha$ -KETOAMIDE THROMBIN INHIBITORS VIA AN EPOXY AMIDE RING OPENING.

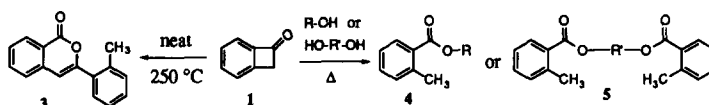
Joseph Cacciola\*, Richard S. Alexander, John M. Fevig and Pieter F.W. Stouten,  
Department of Chemical and Physical Sciences, *The Dupont Merck Pharmaceutical Company*, P.O. Box 80500, Wilmington DE 19880-0500.

We describe a novel route for the preparation of substituted  $\alpha$ -ketoamides of lysine. These compounds, due to the presence of an electrophilic carbonyl, display submicromolar activity toward the enzyme thrombin.



### THERMAL REACTIONS OF BENZOCYCLOBUTENONE WITH ALCOHOLS. Zhi Yuan Wang\*, Laurence Suzzarini and Jian Ping Gao, Ottawa-Carleton Chemistry Institute, Department of Chemistry, Carleton University, 1125 Colonel By Drive, Ottawa, Canada K1S 5B6

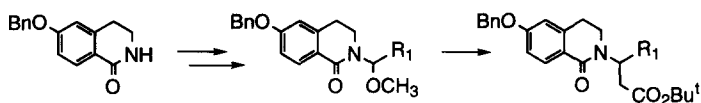
Thermolysis of **1** at 250 °C yielded the isocoumarin **3** in 60% yield. In the presence of stoichiometric amounts of alcohols at 170-210 °C, the corresponding esters **4** and **5** were formed in quantitative yields.



### An Acyliminium Ion Approach Towards The Synthesis of $\beta$ -Substituted 3,4-Dihydroisoquinolone Propionates

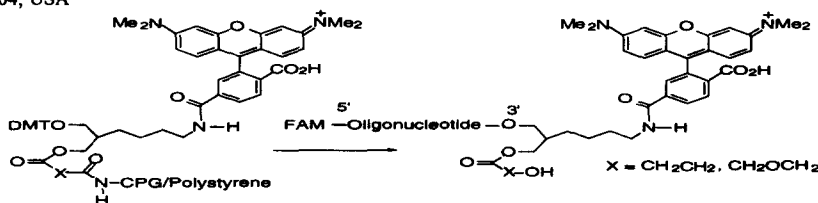
Matthew J. Fisher\*, Bruce P. Gunn, Suzane L. Um, and Joseph A. Jakubowski

Lilly Research Laboratories, A Division of Eli Lilly and Company, Lilly Corporate Center, Indianapolis, Indiana, 46285  
A method for the preparation of  $\alpha$ -methoxy-3,4-dihydroisoquinolones and their subsequent reaction with 1-*tert*-butoxy-1-*tert*-butyldimethylsilyloxy ethene in the presence of  $\text{BF}_3 \cdot \text{Et}_2\text{O}$  to yield  $\beta$ -substituted isoquinolone propionates are described.



### Automated Synthesis of Double Dye-Labeled Oligonucleotides using Tetramethylrhodamine (TAMRA) Solid Supports.

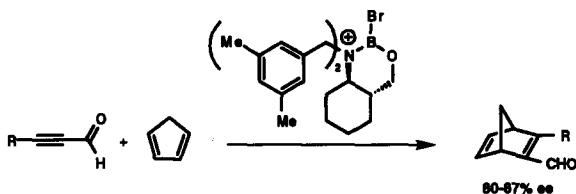
Bashar Mullah\* and Alex Andrus, Applied Biosystems Division, Perkin Elmer Corporation, 850 Lincoln Centre Drive, Foster City, CA 94404, USA



**Enantioselective Diels-Alder Reactions Between Cyclopentadiene and  $\alpha,\beta$ -Acetylenic Aldehydes Catalyzed by a Chiral Super Lewis Acid**

*Tetrahedron Letters*, 1997, 38, 5755

E. J. Corey\* and Thomas W. Lee  
Department of Chemistry and Chemical Biology  
Harvard University, Cambridge, Massachusetts 02138

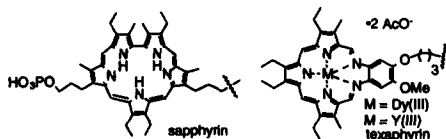


**ENERGY TRANSFER ASSEMBLIES COMPOSED OF EXPANDED PORPHYRIN-OLIGONUCLEOTIDE CONJUGATES.** Darren Magda,<sup>\*a</sup>

Shaun Crofts,<sup>a</sup> Jonathan L. Sessler,<sup>\*b</sup> Petra Sansom,<sup>b</sup> Stacy L. Springs,<sup>b</sup> and Yuichi Ohya,<sup>b</sup> <sup>a</sup>Pharmacycics, Incorporated, 995 East Arques, Sunnyvale, California 94086, <sup>b</sup>Department of Chemistry and Biochemistry, University of Texas at Austin, Austin, Texas 78712

*Tetrahedron Letters*, 1997, 38, 5759

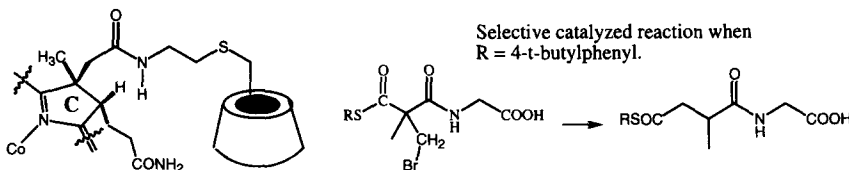
Energy transfer assemblies composed of expanded porphyrin-oligonucleotide conjugates 1-3 are described.



- 1 3'-sapphyrin-PO<sub>2</sub>-AAA AAG TCG TCA TCA G-5'
- 2 5'-Y(III) texaphyrin-PO<sub>2</sub>-TTT TTC AGC AGT AGT C-3'
- 3 5'-Dy(III) texaphyrin-PO<sub>2</sub>-TTT TTC AGC AGT AGT C-3'

**A MUTASE MIMIC WITH COBALAMIN LINKED TO CYCLODEXTRIN.** Miroslav Rezac and Ronald Breslow\*, Department of Chemistry, Columbia University, New York NY 10027 USA

*Tetrahedron Letters*, 1997, 38, 5763



**Caesalpinin, a Rearranged Cassane Furanoditerpene of *Caesalpinia bonducella***

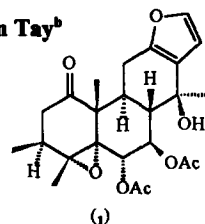
*Tetrahedron Letters*, 1997, 38, 5767

Sonia R. Peter,<sup>a</sup> Winston F. Tinto,<sup>\*a</sup> Stewart McLean,<sup>b</sup> William F. Reynolds,<sup>\*b</sup> Li-Lin Tay<sup>b</sup>

<sup>a</sup>Laboratory of Bioorganic Chemistry, Department of Biological and Chemical Sciences, University of the West Indies, Cave Hill Campus, Barbados

<sup>b</sup>Department of Chemistry, University of Toronto, Toronto, Ontario, M5S 1A1, Canada

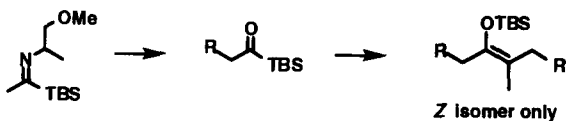
A new rearranged cassane furanoditerpene, caesalpinin (1), was isolated from the roots of *Caesalpinia bonducella* and the structure determined by 2D NMR spectroscopy.



### Stereospecific Synthesis of Tetrasubstituted Z-Enol Silyl Ethers By A Three Component Coupling Process

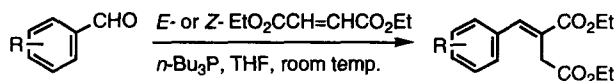
*Tetrahedron Letters*, 1997, 38, 5771

E. J. Corey,\* Shouzhong Lin and Guanglin Luo  
Department of Chemistry and Chemical Biology  
Harvard University, Cambridge, Massachusetts 02138



### One-Pot, Three-Component Synthesis of Arylidene-succinates and Related Compounds. Stuart W. McCombie\* and Courtney A. Luchaco, Schering-Plough Research Institute, 2015 Galloping Hill Road, Kenilworth, NJ 07033-0539

*Tetrahedron Letters*, 1997, 38, 5775



\* Yields: 71 - 95%.

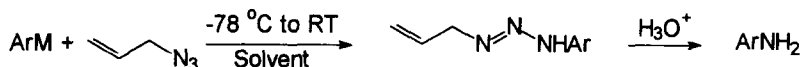
\* Also for heterocyclic, aliphatic and unsaturated aldehydes.

### Synthesis of Aromatic Amines Using Allyl Azide

*Tetrahedron Letters*, 1997, 38, 5777

George W. Kabalka,\* and Guisheng Li  
Departments of Chemistry and Radiology  
The University of Tennessee  
Knoxville, TN 37996-1600

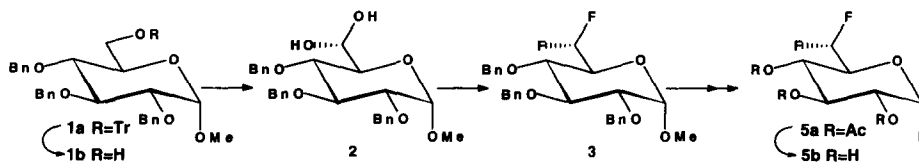
Aromatic amines are conveniently prepared in good yields by reaction of aromatic Grignard and lithium reagents with allyl azide, followed by hydrolysis.



### SYNTHESIS OF 6-DEOXY-6,6-DIFLUORO- $\alpha$ -D-GLUCOPYRANOSYL FLUORIDE

Lincoln A. Noecker and John R. Edwards\*,  
Department of Chemistry, Villanova University, Villanova, PA 19085 USA

*Tetrahedron Letters*, 1997, 38, 5779



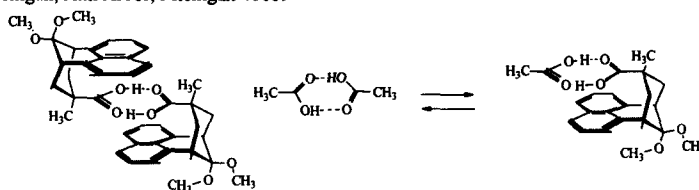
*Tetrahedron Letters*, 1997, 38, 5781

### Aromatic Stacking in Folded Architectures through Hydrogen Bonding.

Yaun-Shek Chen, Jeff W. Kampf and Richard G. Lawton\*

Department of Chemistry, The University of Michigan, Ann Arbor, Michigan 48109

The  $\alpha$ ,  $\alpha'$ -annulation of the enamine of 1,3-dihydro-2-phenalenone with methyl  $\alpha$ -(bromomethyl)acrylate affords an aromatic bicyclic framework. The acid derivatives of this framework dimerize affording a "sandwich" structure. Both NMR and fluorescence techniques probe this dimeric association.



*Tetrahedron Letters*, 1997, 38, 5785

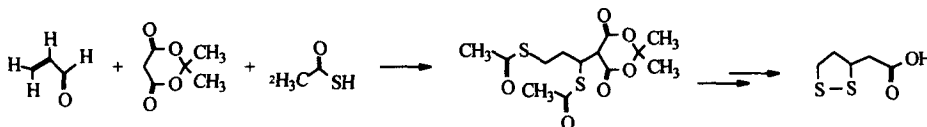
### An Efficient Synthetic Route to 2-(1,2-Dithiolan-3-yl)acetic acid.

Trisnorlipoic Acid and Amide Derivatives.

Yaun-Shek Chen and Richard G. Lawton\*, Department of Chemistry, The University of Michigan

Ann Arbor, Michigan 48109-1055

A simple, efficient synthesis of 2-(1,2-dithiolan-3-yl)acetic acid from Meldrum's acid, acrolein and thioacetic acid is described.



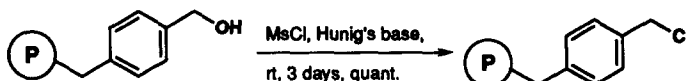
*Tetrahedron Letters*, 1997, 38, 5789

### Facile Preparation of Chloromethylphenyl Solid Supports Using Methanesulfonyl

Chloride and Hunig's Base. David A. Nugiel\*, Dean A. Wacker and Gregory A. Nemeth

The DuPont Merck Pharmaceutical Company, P.O. Box 80500, Wilmington, DE 19880-0500

**Abstract:** Several commercially available hydroxymethylaryl resins were converted to their corresponding chloromethyl analogs by simple treatment with methanesulfonyl chloride and Hunig's base in DMF at 25 °C over 3 days. This mild method gave quantitative conversions as determined by elemental analysis and <sup>13</sup>C NMR.



*Tetrahedron Letters*, 1997, 38, 5791

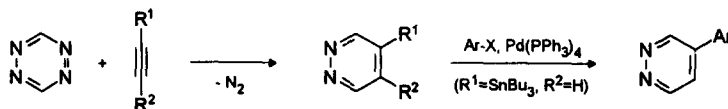
### SYNTHESIS OF METALLATED (METAL = SI, GE, SN)

PYRIDAZINES BY CYCLOADDITION OF METAL

SUBSTITUTED ALKYNES TO 1,2,4,5-TETRAZINE

Dieter K. Heldmann and Jürgen Sauer\*, Institute of Organic Chemistry, University of Regensburg, D-93040 Regensburg, Germany

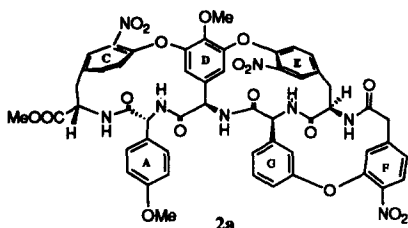
Preparative and kinetic aspects of the title reactions are reported. The stannylated pyridazines were cross-coupled with various aromatic carbon electrophiles under Pd-catalysis.



**SYNTHESIS OF MODEL TRICYCLIC C-O-D-O-E-F-O-G RING OF TEICOPLANIN**

*Tetrahedron Letters*, 1997, 38, 5795

Michèle Bois-Choussy, Caroline Vergne, Luc Neuville, René Beugelmanns, Jieping Zhu\*  
*Institut de Chimie des Substances Naturelles, 91198 Gif-sur-Yvette, France*



Synthesis of model tricyclic C-O-D-O-E-F-O-G rings (2) by means of efficient  $S_NAr$  based cycloetherification methodology is reported.

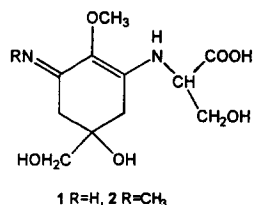
**STRUCTURES OF TWO NEW MYCOSPORINES AMINO ACIDS FROM *POCILLOPORA EYDOUXI***

*Tetrahedron Letters*, 1997, 38, 5799

Taivini T. TEAI and Paul M.V. MARTIN, ITRM LM, BP 30 Papeete, Tahiti, Polynésie Française

Phila RAHARIVELOMANANA, Jean-Pierre BIANCHINI, Robert FAURE and Aimé CAMBON, UFP, CUPF, BP 6570 Faaa Aéroport, Tahiti, Polynésie Française

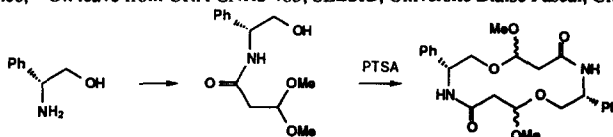
Two new Mycosporine Amino Acids molecules Palythine-serine (1) and N-Methylpalythine-serine (2) were isolated from *Pocillopora eydouxi* and characterized



**RAPID ACCESS TO A 14-MEMBERED DIKETAL DILACTAM RING**

*Tetrahedron Letters*, 1997, 38, 5801

Denise Dugat,<sup>†</sup> Angèle Chiaroni, Claude Riche, Jacques Royer\* and Henri-Philippe Husson, Institut de Chimie des Substances Naturelles, CNRS, 1 Ave de la Terrasse, 91198 Gif-sur-Yvette, France; <sup>†</sup> On leave from URA CNRS 485, SEESIB, Université Blaise Pascal, Clermont-Ferrand, France



A macrocyclic dioxadilactam was obtained in two steps by acidic cyclization of a chiral amido-acetal issue from *R*(-)-phenylglycinol

**LUTOSIDE : AN ACYL-1-(ACYL-6'-MANNOBIOSYL)-3-GLYCEROL ISOLATED FROM THE SPONGE-ASSOCIATED BACTERIUM *MICROCOCCUS LUTEUS*.**

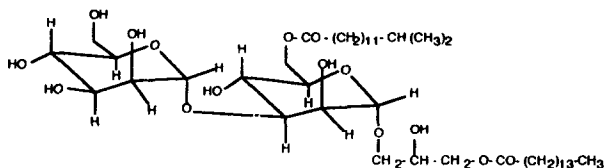
*Tetrahedron Letters*, 1997, 38, 5805

Valérie Bultel-Poncé<sup>a</sup>, Cécile Debitus<sup>b</sup>, Alain Blond<sup>a</sup>, Claude Cerceau<sup>a</sup>, Michèle Guyot<sup>a\*</sup>,

<sup>a</sup> Laboratoire de Chimie du Muséum National d'Histoire Naturelle-CNRS, 63 rue Buffon, 75005 Paris, France.

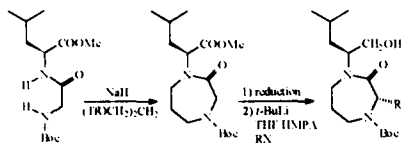
<sup>b</sup> ORSTOM Nouméa, Nouvelle-Calédonie.

Lutoside, an unusual acyl-1-(acyl-6'-mannobiosyl)-3-glycerol **1** was isolated from the sponge-associated bacterial strain *Micrococcus luteus*.



**Stereoselective Synthesis of 1,3-Disubstituted Hexahydro-1,4-diazepin-2-ones.**

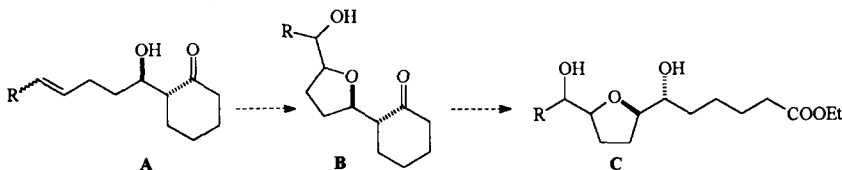
Adriana Pohlmann, Dominique Guillaume\*, Jean-Charles Quirion,  
Henri-Philippe Husson. Laboratoire de Chimie Thérapeutique associé au CNRS,  
Faculté des Sciences Pharmaceutiques et Biologiques, Université R. Descartes,  
4, Av. de l'Observatoire, 75270 Paris Cedex 06, France.

**SYNTHESIS OF THE THF MOIETY OF ANNONACIN BASED ON  
ALDOLISATION AND BAEYER-VILLIGER OXIDATION.**

J.-P. Gesson\*, B. Renoux and E. Schulten

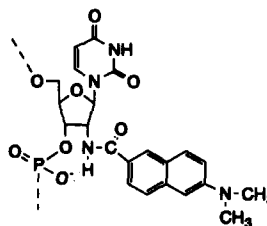
Laboratoire de Chimie 12, Université de Poitiers et CNRS, 40, Avenue du Recteur Pineau, F-86022 Poitiers Cedex

*Erythro* (or *threo*)-*trans* (or  
*cis*)-*threo* esters **C** are  
prepared in few steps from  
*Z* (or *E*) *anti* aldol **A** using  
diastereoselective Baeyer-  
Villiger reaction of ketone  
**B**.

**AN URIDINE DERIVATIVE CONTAINING A HYDROPHOBIC  
FLUORESCENT PROBE AT THE 2'-POSITION: SYNTHESIS  
AND ITS INCORPORATION INTO OLIGONUCLEOTIDES**

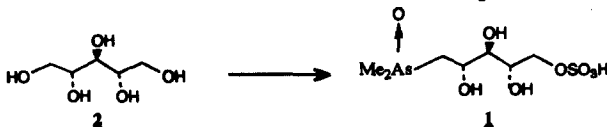
Kazushige Yamana,\* Tuneso Mitsui, Haruhisa Hayashi, and Hidehiko Nakano  
Department of Applied Chemistry, Himeji Institute of Technology, 2167 Shosha,  
Himeji, Hyogo 671-22, Japan

The synthesis of 2'-(6-dimethylamino-2-naphthamide)uridine [U(DAN)] has been  
described. The nucleoside was converted to the 5'-dimethoxytrityl nucleoside  
phosphoramidite which could be used for incorporation of U(DAN) into the desired  
positions of the oligonucleotide sequence.

**ISOLATION AND SYNTHESIS OF 1-DEOXY-1-DIMETHYLARSINOYL-RIBITOL  
-5-SULFATE, A NATURAL CONSTITUENT OF *CHONDRIA CRASSICAULIS* AND  
OTHER RED ALGAE**

John S. Edmonds\*, Yasuyuki Shibata, Fuquan Yang<sup>†</sup> and Masatoshi Morita  
National Institute for Environmental Studies, 16-2 Onogawa, Tsukuba, Ibaraki 305, Japan

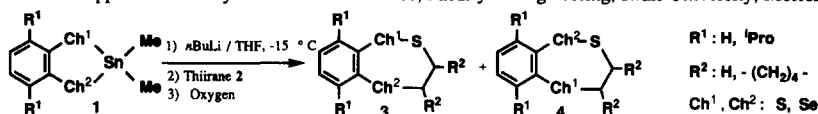
**Abstract:** 1-deoxy-1-dimethylarsinoylribitol-5-sulfate, **1**, synthesised from ribitol, **2**, was identical with  
a natural constituent of *Chondria crassicaulis* and other red algae, some of which are eaten in Japan.



**SYNTHESES OF 1,2,5-BENZOTRICALCOGENEPINS.  
REACTIONS OF 1,3,2-BENZODICALCOGENASTANNOLES  
WITH THIIRANES**

Ryu Sato,\* Satoshi Sanada, Masako Okanuma, Takeshi Kimura, and Satoshi Ogawa

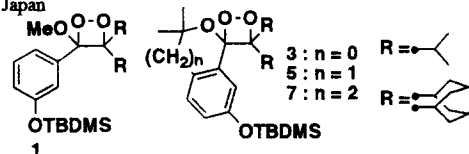
Department of Applied Chemistry and Molecular Science, Faculty of Engineering, Iwate University, Morioka 020, Japan



**CHEMILUMINESCENCE OF SPIRO[1,2-DIOXETANE-3,1'-  
DIHYDROISOBENZOFURAN]S, SPIRO[1,2-DIOXETANE-3,1'-  
ISOCHROMAN]S AND A SPIRO[1,2-DIOXETANE-3,1'-(2-BENZOXEPANE)]**

Masakatsu Matsumoto,\* Nobuko Watanabe, Tamaki Shiono, Hiroyuki Sugauna, and Jyunya Matsubara, Department of Materials Science, Kanagawa University, Tsuchiya, Hiratsuka, Kanagawa 259-12, Japan

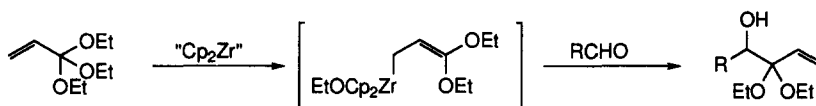
Spiro[1,2-dioxetane-3,1'-dihydroisobenzofuran]s (3), spiro[1,2-dioxetane-3,1'-isochroman]s (5) and a spiro[1,2-dioxetane-3,1'-(2-benzoxepane)] (7) were synthesized. Desilylation of these new dioxetanes with TBAF in DMSO induced light emission with half-lives far longer than those of the parent dioxetanes (1).



**PREPARATION AND REACTIONS OF  $\gamma,\gamma$ -DIALKOXYALLYLIC  
ZIRCONIUM SPECIES:  $\alpha,\beta$ -UNSATURATED ACYL ANION EQUIVALENT**

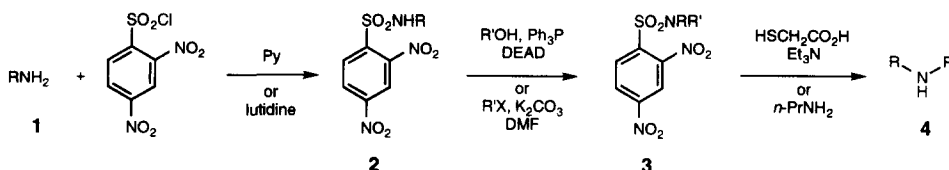
Hisanaka Ito and Takeo Taguchi\*

Tokyo University of Pharmacy and Life Science, 1432-1 Horinouchi, Hachioji, Tokyo 192-03, Japan



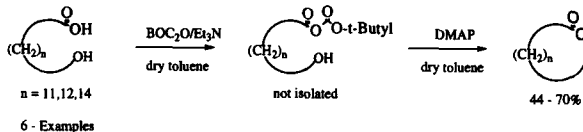
**2,4-Dinitrobenzenesulfonamides: A Simple and Practical Method  
for the Preparation of a Variety of Secondary Amines and Diamines.**

Tohru Fukuyama,\*<sup>†</sup> Mui Cheung,<sup>‡</sup> Chung-Kuang Jow,<sup>‡</sup> Yuko Hidai,<sup>†</sup> and Toshiyuki Kan<sup>†</sup> <sup>†</sup>Faculty of Pharmaceutical Sciences, University of Tokyo, 7-3-1 Hongo, Bunkyo-ku, Tokyo 113, Japan. <sup>‡</sup>Department of Chemistry, Rice University, Houston, Texas 77005-1892.



**DI-TERT-BUTYL PYROCARBONATE MEDIATED SYNTHESIS OF MACROCYCLIC LACTONES FROM  $\omega$ -HYDROXY ACIDS**

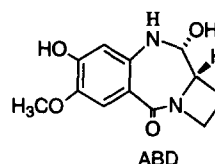
M. Nagarajan, V. Satish Kumar and B. Venkateswara Rao  
Indian Institute of Chemical Technology, Hyderabad - 500 007, India



**STEREOSPECIFIC SYNTHESIS OF A NOVEL AZETIDO-[2,1-c][1,4]BENZODIAZEPINE RING SYSTEM WITH DNA RECOGNITION POTENTIAL**

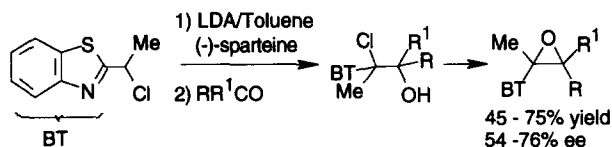
D. Subhas Bose\*, P. Srinivas and M. K. Gurjar

Organic Chemistry Division III, Indian Institute of Chemical Technology, Hyderabad - 500 007, India



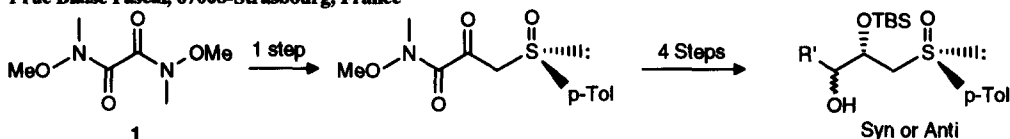
**ENANTIOSELECTIVE SYNTHESIS OF 2-BENZOTHAZOLYL OXIRANES**

Saverio Florio,\* Vito Capriati and Vincenzo Russo  
Dipartimento Farmaco-Chimico, Università di Bari, Via Orabona 4, 70125 Bari, Italy.



**STEREOSELECTIVE SULFOXIDE DIRECTED REDUCTION OF 1,2-DIKETO-DERIVATIVES TO ENANTIOMERICALLY PURE SYN AND ANTI 1,2-DIOLS**

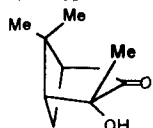
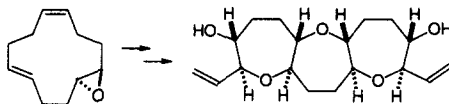
Guy Solladié\*, Gilles Hanquet, Catherine Rolland  
Laboratoire de Stéréochimie associé au CNRS, ECPM, Université Louis Pasteur  
1 rue Blaise Pascal, 67008-Strasbourg, France



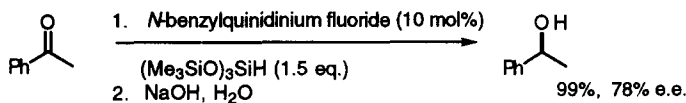
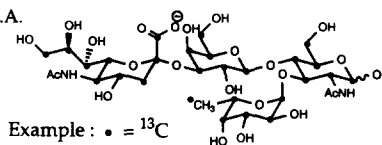


**HYDROXYPINANONE : SOLUTE/SOLUTE INTERACTIONS AND NON-LINEAR CHIROPTICAL PROPERTIES**

Solladié-Cavallo A., Andriamiadanarivo R., Laboratoire de Stéréochimie Organométallique associé au CNRS, ECPM/Université Louis Pasteur, 1 rue B. Pascal, 67008, Strasbourg France

Hydroxypinanone **1** exhibits non-linear behavior of the optical rotation and even EtOH leads to significant discrepancies.1(+)-100% e.e from GC :  $[\alpha]_D^{24} = +41.4$  ( $c=3$ ,  $\text{CHCl}_3$ )+22.9 ( $c=3$ ,  $\text{EtOH}$ )1(+)-90% e.e from GC :  $[\alpha]_D^{24}\text{Max} = +44.5$  ( $c=3$ ,  $\text{CHCl}_3$ ) *overestimated*+21.7 ( $c=3$ ,  $\text{EtOH}$ ) *underestimated*1(+)-70% e.e from GC :  $[\alpha]_D^{24}\text{Max} = +35.7$  ( $c=3$ ,  $\text{CHCl}_3$ ) *underestimated*+19.8 ( $c=3$ ,  $\text{EtOH}$ ) *underestimated***A FACILE SYNTHESIS OF AN OXATRICYCLIC TRANS-SYN-TRANS-SUBSTITUTED OXEPANYL FRAMEWORK**Eduardo Manta,<sup>a\*</sup> Laura Scarone,<sup>a</sup> Gonzalo Hernández,<sup>a</sup> Raul Mariezcurrena,<sup>b</sup> Leopoldo Suescun,<sup>b</sup> Iván Brito,<sup>c</sup> Ignacio Brouard,<sup>d</sup> M. Carmen González,<sup>d</sup> Ricardo Pérez,<sup>d</sup> and Julio D. Martín<sup>a,d</sup> <sup>a</sup>Cátedra de Química Farmacéutica, Universidad de la República, Uruguay; <sup>b</sup>Cátedra de Cristalografía, Universidad de la República, Uruguay; <sup>c</sup>Facultad de Ciencias Básicas, Universidad de Antofagasta, Chile; <sup>d</sup>Instituto de Investigaciones Químicas, CSIC, Isla de La Cartuja, Sevilla, Spain**THE ASYMMETRIC REDUCTION OF KETONES USING CHIRAL AMMONIUM FLUORIDE SALTS AND SILANES**Mark D. Drew, Nicholas J. Lawrence,<sup>\*</sup> Dept. of Chemistry, UMIST, PO Box 88, Manchester, M60 1QD, UK. William Watson, Lancaster Synthesis Ltd., Eastgate, White Lund, Morecambe, Lancs. LA3 3DY and Stephen A. Bowles, British Biotech, Watlington Road, Oxford, OX4 5LY

Ketones are reduced with moderate enantioselectivity by silanes bearing alkoxy or silyloxy groups and chiral ammonium fluoride salts derived from cinchona alkaloids.

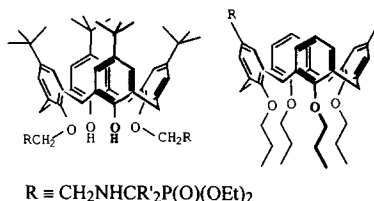
**CHEMOENZYMATIC SYNTHESIS OF THE GM<sub>3</sub>, LEWIS X AND SIALYL LEWIS X OLIGOSACCHARIDES IN <sup>13</sup>C-ENRICHED FORM**Mark A. Probert, Mark J. Milton, Richard Harris, Sergio Schenkman,<sup>a</sup> Jonathan M. Brown,<sup>b</sup> Steven W. Homans and Robert A. Field<sup>\*</sup> School of Chemistry and Centre for Biomolecular Sciences, University of St Andrews, St Andrews, Fife KY16 9ST, U.K.<sup>a</sup> Dept. de Microbiologia, Imunologia e Parasitologia, Escola Paulista de Medicina, UNIFESP, 04023-062 Sao Paulo, BRAZIL<sup>b</sup> Martek Biosciences Corporation, 6480 Dobbin Road, Columbia, MD 21045, U.S.A.The chemoenzymatic synthesis of biologically important oligosaccharides in <sup>13</sup>C-enriched form is reported.

**CALIX[4]ARENE BASED  $\alpha$ -AMINOPHOSPHONATES: NOVEL CARRIERS FOR ZWITTERIONIC AMINO ACIDS TRANSPORT.** I.S. Antipin,\* I.I. Stoikov,

E.M. Pinkhassik, N.A. Fitseva, I. Stibor, A.I. Kononov  
Kazan State University, Kremlevskaja 18, 420008 Kazan, Russia  
Institute of Chemical Technology, Technicka 5, 16628 Prague,  
The Czech Republic

The calix[4]arene based  $\alpha$ -aminophosphonates exhibit remarkable selectivity as carriers for the membrane transport of the zwitterionic form of aromatic amino acids.

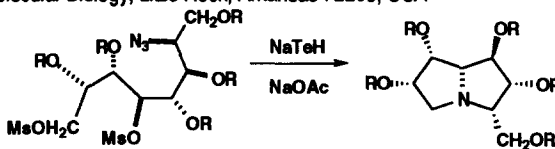
*Tetrahedron Letters*, 1997, 38, 5865



**SYNTHESIS OF CASUARINES [PENTAHYDROXYLATED PYRROLIZIDINES] BY SODIUM HYDROGEN TELLURIDE-INDUCED CYCLISATIONS OF AZIDODIMESYLATES**

A. A. Bell, L. Pickering, A. A. Watson, Robert J. Nash, Y. T. Pan, A. D. Elbein and G. W. J. Fleet\*  
Dyson Perrins Laboratory, Oxford University, South Parks Road, Oxford OX1 3QY UK; Institute of Grassland and Environmental Research, Plas Gogerddan, Aberystwyth, Cardiganshire SY23 3EB UK; University of Arkansas for Medical Sciences, Department of Biochemistry & Molecular Biology, Little Rock, Arkansas 72205, USA

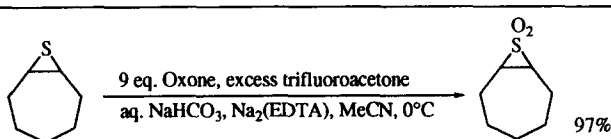
The first synthesis of diastereomers of the very highly oxygenated pyrrolizidine casuarine relies on the Suzuki-Takaoka NaTeH reduction of azidodimesylates, followed by high yield concomitant bicyclisation.



*Tetrahedron Letters*, 1997, 38, 5869

**THE FIRST PREPARATION OF EPISULFONES FROM EPISULFIDES: OXIDATION USING OXONE®/TRIFLUOROACETONE**

Paul Johnson and Richard J. K. Taylor\*

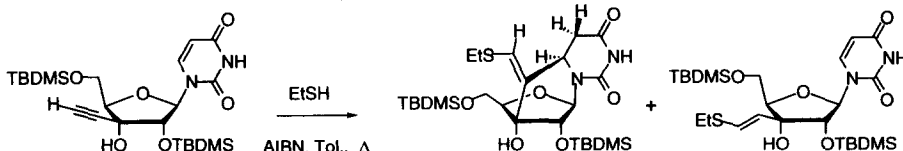


Department of Chemistry, University of York, Heslington, York YO1 5DD, UK

*Tetrahedron Letters*, 1997, 38, 5873

**CYCLIZATION BY FREE RADICAL ADDITION OF STANNYL OR THIYL RADICAL TO 3'- $\beta$ -ETHYNYL URIDINE.**

**IS THE 3'- $\beta$ -ETHYNYL GROUP A SPIN TRAP IN RIBONUCLEOTIDE REDUCTASE?** Pierre M. J. Jung, Jérôme Dauvergne, Alain Burger\*, and Jean-François Biellmann. Laboratoire de Chimie Organique Biologique associé au CNRS URA 31, Faculté de Chimie, Université Louis Pasteur, 1 rue Blaise Pascal, 67008 Strasbourg, France.



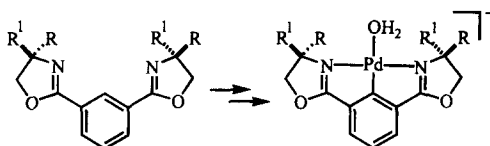
*Tetrahedron Letters*, 1997, 38, 5877

**SYNTHESIS AND APPLICATION OF CATIONIC 2,6-BIS(2-OXAZOLINYL)PHENYLPALLADIUM(II) COMPLEXES**

*Tetrahedron Letters*, 1997, 38, 5881

Mark A. Stark and Christopher J. Richards

Department of Chemistry, University of Wales, Cardiff,  
PO Box 912, Cardiff, CF1 3TB, UK



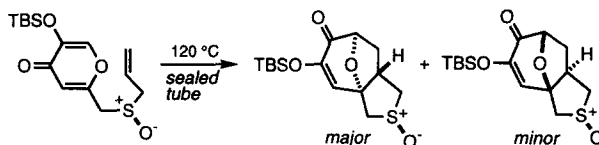
**USE OF A SULFINYL TETHER TO CONTROL DIASTEREOFACIAL SELECTIVITY IN [5C + 2C] PYRONE-ALKENE CYCLOADDITIONS**

*Tetrahedron Letters*, 1997, 38, 5885

Antonio Rumbo, Luis Castedo, and José L. Mascareñas\*

Departamento de Química Orgánica y Unidad Asociada al C.S.I.C.  
15706, Santiago de Compostela. Spain

The presence of a sulfoxide group in a disposable tether linking an alkene to a 5-silyloxy-4-pyrone induces moderate levels of diastereofacial selectivity in their internal thermal [5+2] cycloaddition



**NOVEL RING OPENING REACTIONS OF METHYLENEAZIRIDINES**

*Tetrahedron Letters*, 1997, 38, 5887

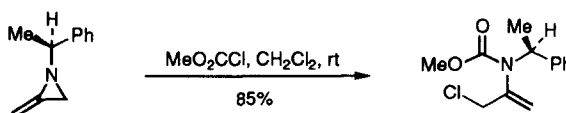
Julie Ince and Michael Shipman\*

Department of Chemistry, University of Exeter, Stocker Road, Exeter, Devon, EX4 4QD, U.K.

David S. Ennis

SmithKline Beecham Pharmaceuticals, New Frontiers Science Park, Third Avenue, Harlow, Essex, CM19 5AW, U.K.

Methyleneaziridines can be ring opened with chloroformates and acid chlorides to functionalised enamines under mild reaction conditions.



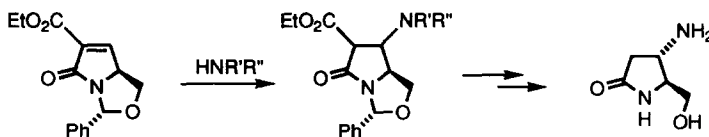
**CONJUGATE ADDITION OF NITROGEN NUCLEOPHILES TO AN  $\alpha,\beta$ -UNSATURATED PYRROLIDINONE**

*Tetrahedron Letters*, 1997, 38, 5891

P.W.H. Chan, I.F. Cottrell and M.G. Moloney

Dyson Perrins Laboratory, University of Oxford, South Parks Rd, Oxford. OX1 3QY, and

Merck Sharp and Dohme Research Laboratories, Hertford Rd, Hoddesdon, Herts. EN11 9BU.

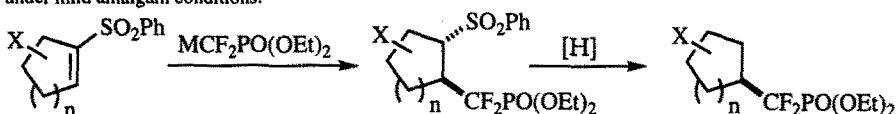


*Tetrahedron Letters*, 1997, 38, 5895

**CONJUGATE ADDITION REACTIONS OF A  
(DIETHOXYPHOSPHINOYL)DIFLUOROMETHYL ANION  
EQUIVALENT TO ACYCLIC AND CYCLIC VINYL SULFONES**

Kevin Blades, Dominique Lapôte and Jonathan M. Percy

Generating the conjugate base of diethyl difluoromethanephosphonate in the presence of cerium(III) chloride allows conjugate addition to cyclic vinyl sulfones in moderate to good yield. Desulfonation occurred under mild amalgam conditions.

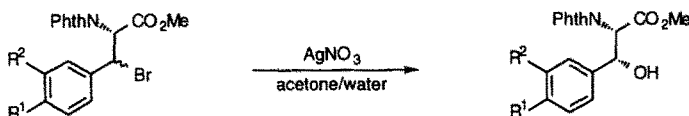


*Tetrahedron Letters*, 1997, 38, 5899

**SUBSTITUENT EFFECTS IN THE STEREOCONVERGENT  
SYNTHESIS OF  $\beta$ -HYDROXYPHENYLALANINE DERIVATIVES.**

Craig A. Hutton, School of Chemistry, The University of Melbourne, Parkville, Victoria 3052, Australia

The degree of stereoconvergence in the synthesis of  $\beta$ -hydroxyarylalanine derivatives from the corresponding  $\beta$ -bromoarylalanine derivatives is governed by the electronic nature of the aryl substituents.

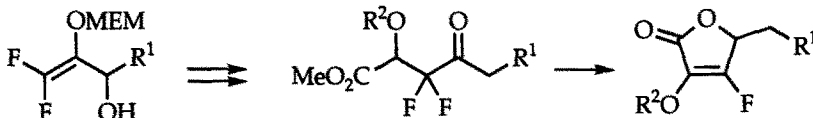


*Tetrahedron Letters*, 1997, 38, 5903

**CHELATED [3,3]-REARRANGEMENTS OF DIFLUOROALLYLIC  
ALCOHOLS**

Michael J. Broadhurst, Jonathan M. Percy and Michael E. Prime

Cheated ester enolates derived from difluoroallylic alcohols underwent smooth [3,3]-rearrangements as their silyl ketene acetals. The enol acetal function in the crude products was unmasked under mild conditions to afford highly functionalised products containing a  $\text{CF}_2$  group, and in one case, a butenolide.



*Tetrahedron Letters*, 1997, 38, 5907

**RADICAL CYCLISATION OF AMINO ALDEHYDES LEADING  
TO HYDROXY PYRROLIDINES AND PIPERIDINES**

Andrew F. Parsons\* and Robert M. Pettifer, Department of Chemistry, University of York, Heslington, York, YO1 5DD, UK

The  $\text{Bu}_3\text{SnH}$  mediated cyclisation of amino aldehydes bearing an electron rich or poor double bond gives rise to disubstituted pyrrolidines and piperidines.

