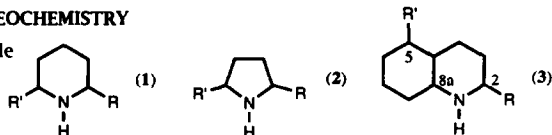


## GRAPHICAL ABSTRACTS

*Tetrahedron*, 1994, 50, 11329

### CIS- AND TRANS-CONFIGURATIONS OF $\alpha, \alpha'$ -DISUBSTITUTED PIPERIDINES AND PYRROLIDINES BY GC-FTIR: APPLICATION TO DECAHYDROQUINOLINE STEREOCHEMISTRY

H.M. Garraffo,\* L.D. Simon, J.W. Daly and T.F. Spande  
National Institutes of Health, Bethesda, MD, 20892  
Tappay H. Jones  
Virginia Military Institute, Lexington, VA, 24450



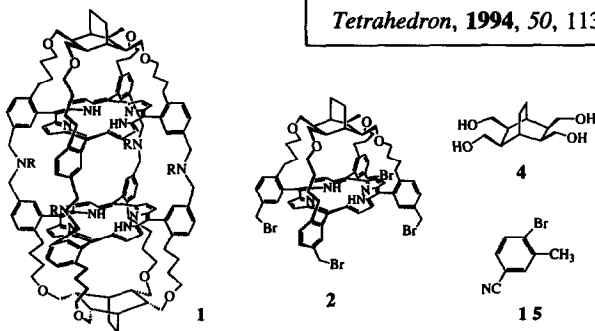
Bohlmann band frequencies and intensities in FTIR spectra permit the assignment of *cis*- or *trans*-stereochemistries to  $\alpha, \alpha'$ -disubstituted piperidines (1) and pyrrolidines (2), as well as the relative 2,8a-stereochemistry of decahydroquinolines (3), even in complex mixtures as separated by gas chromatography.

*Tetrahedron*, 1994, 50, 11339

### SYNTHESIS OF A SPHEROIDAL BIS-PORPHYRIN, A LIGAND DESIGNED TO ACCEPT TWO CATALYTIC METAL IONS IN AN ISOLATED ENVIRONMENT

Hong-Yue Zhang, Jian-Qiu Yu and  
Thomas C. Bruice\*  
Department of Chemistry, University of California  
at Santa Barbara, Santa Barbara, CA 93106

A spheroidal bis-porphyrin (1, R = SES), designed to be employed as a ligand for a class of catalysts which mimic the combined enzyme activities of superoxide dismutase and catalase, has been synthesized from 4 and 15.

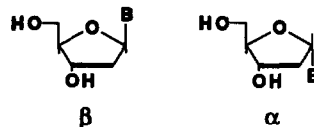


*Tetrahedron*, 1994, 50, 11363

### IDENTIFICATION OF PURINE DEOXYRIBONUCLEOSIDE ANOMERS BY TWO DIMENSIONAL NOESY NMR

Joseph Gambino, Te-Fang Yang and George E. Wright\*, Department of Pharmacology,  
University of Massachusetts Medical School, Worcester, MA 01655

Patterns of NOE crosspeaks in two dimensional  $^1\text{H}$  NOESY spectra of purine deoxyribonucleosides are characteristic for the  $\beta$  and  $\alpha$  anomers. Certain  $^1\text{H}$  chemical shifts are characteristic for 7 and 9 regioisomers. NOE intensities, although qualitatively consistent with interproton distance ranges in N and S conformers, are insufficient for complete conformational analysis of nucleosides.



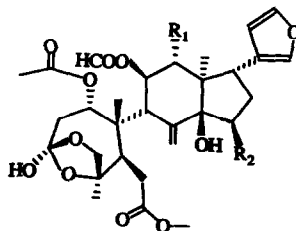
*Tetrahedron*, 1994, 50, 11369

### POTENT NEW CELL ADHESION INHIBITORY COMPOUNDS FROM THE ROOT OF *TRICHILIA RUBRA*

László L. Musza, Lorán M. Killar, Phyllis Speight, Susan McElhiney,  
Colin J. Barrow, Amanda M. Gillum, and Raymond Cooper

Sterling Winthrop Pharmaceuticals Research Division  
25 Great Valley Parkway, Malvern PA 19355-1314

Five new and two known seco-limonoids were isolated from *Trichilia rubra*. Their structures were elucidated by spectroscopic studies. All seven compounds were found to be potent inhibitors of  $\beta_2$ -integrin mediated cell adhesion.

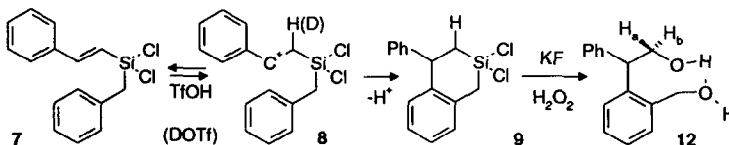


## ADDITION TO SILYLSTYRENES: OVERCOMING THE PREDILECTION FOR PROTODESILYLATION

*Tetrahedron*, 1994, 50, 11379

Courtney Henry and Michael A. Brook,\* Department of Chemistry, McMaster University, 1280 Main St. W., Hamilton, Ontario, Canada, L8S 4M1.

Dichlorostyrylsilanes undergo sequential, regioselective, addition reactions (C-H and C-C), (7 → 9 → 12).



## STUDIES TOWARDS THE SYNTHESIS OF ESPERAMICINONE

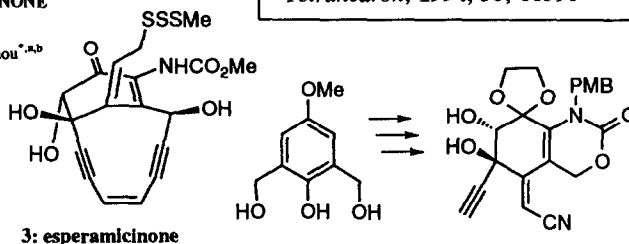
*Tetrahedron*, 1994, 50, 11391

David A. Clark,\* Francesco De Riccardis\* and Kyriacos C. Nicolaou<sup>\*,ab</sup>

<sup>a</sup>Department of Chemistry, The Scripps Research Institute, 10666 North Torrey Pines Road, La Jolla, CA 92037 (U. S. A.)

<sup>b</sup>Department of Chemistry, University of California, San Diego, La Jolla, CA 92093 (U. S. A.)

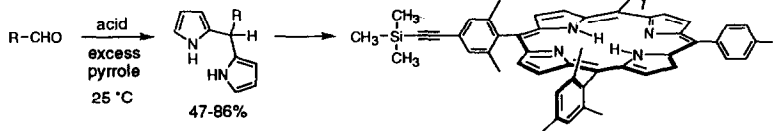
Progress towards the synthesis of esperamicinone (3), the aglycone of esperamicin A<sub>1</sub> (1) is reported.



## ONE-FLASK SYNTHESIS OF MESO-SUBSTITUTED DIPYRROMETHANES AND THEIR APPLICATION IN THE SYNTHESIS OF TRANS-SUBSTITUTED PORPHYRIN BUILDING BLOCKS

*Tetrahedron*, 1994, 50, 11427

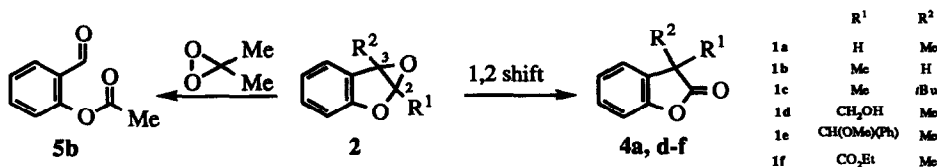
Chang-Hee Lee and Jonathan S. Lindsey  
Department of Chemistry  
Carnegie Mellon University  
Pittsburgh, PA 15213 USA



## Rearrangement of 2,3-Disubstituted Benzofuran Epoxides Prepared by Dimethyldioxirane Oxidation. Waldemar Adam\* and Markus Sauter, Institut für Organische Chemie, Universität Würzburg, Am Hubland, D-97074 Würzburg

*Tetrahedron*, 1994, 50, 11441

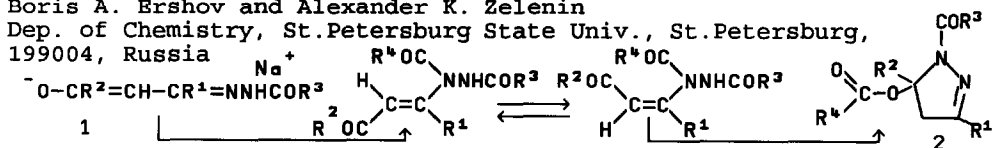
Benzofuran epoxides afford on 1,2 migration the respective benzofuranones 4a,d-f; however, on DMD oxidation of 2-methylbenzofuran (1b), the ester 5b is formed by a novel oxidative cleavage of the intermediary epoxide 2b.



**SODIUM SALTS OF ACYLHYDRAZONES OF 1,3-DIOXO-COMPOUNDS AND THEIR ACYLATION**

*Tetrahedron, 1994, 50, 11447*

Kirill N. Zelenin\* and Irina P. Bezhan  
 Military Medical Academy, St. Petersburg, 194175, Russia  
 Boris A. Ershov and Alexander K. Zelenin  
 Dep. of Chemistry, St. Petersburg State Univ., St. Petersburg,  
 199004, Russia



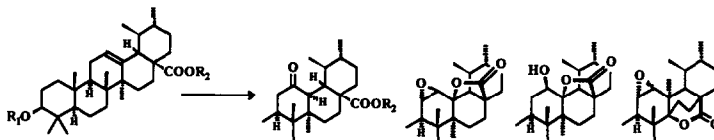
Acylation of 1 and further steps leading to 2 are described

**STEREOCHEMISTRY OF HYDROGEN PEROXIDE - ACETIC ACID OXIDATION OF URSOLIC ACID AND RELATED COMPOUNDS.**

*Tetrahedron, 1994, 50, 11459*

Alexey V. Tkachenko<sup>a</sup>, Alexey Yu. Denisov<sup>b</sup>, Yuri V. Gatilov<sup>a</sup>, Irina Yu. Bagryanskaya<sup>a</sup>, Sergey A. Shevtsov<sup>a</sup> and Tatjana V. Rybalova<sup>a</sup>  
<sup>a</sup>Novosibirsk Institute of Organic Chemistry, Novosibirsk 630090, Russia <sup>b</sup>Novosibirsk Institute of Bioorganic Chemistry, Novosibirsk 630090, Russia

Stereochemical assignment of the oxidized ursane-type triterpenoids is made using NMR and X-ray data. Possible mechanisms of oxidation of ursolic acid and related compounds by peracids are suggested.



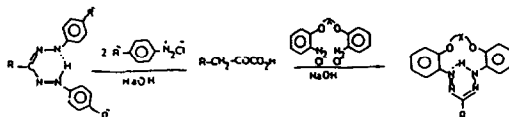
**NEW SYNTHESIS OF MACROCYCLIC CROWN -FORMAZANS FROM PYRUVIC ACID DERIVATIVES**

*Tetrahedron, 1994, 50, 11489*

YEHLA A. IBRAHIM\*, AHMED H. M. ELWAHY AND ASHERAF A. ABBAS

Department of Chemistry, Faculty of Science, Cairo University, Giza, A. R. Egypt

Coupling of pyruvic acid and its aryl derivatives with arenediazonium chlorides and bis arenediazonium chloride gave the corresponding acyclic 1,5-symmetrically disubstituted formazans and their macrocyclic crown derivatives.

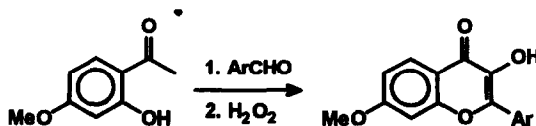


**Condensation Reactions in Water of Active Methylene Compounds with Arylaldehydes. One-pot Synthesis of Flavonols.**

*Tetrahedron, 1994, 50, 11499*

Francesco Fringuelli, Giosanna Pani, Oriana Piermatti, Ferdinando Pizzo - Università di Perugia (Italy)

The condensation of titled compounds were studied in water in the presence and absence of surfactant. The one-pot synthesis of 7- and 3',4'-substituted flavonol was achieved.

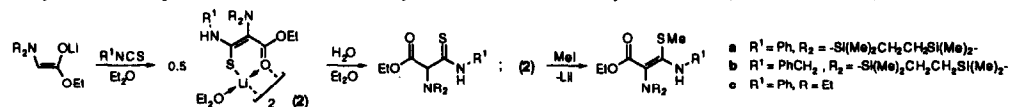


**HIGHLY FUNCTIONALIZED  $\beta$ -ENAMINO ESTERS VIA C-C COUPLING REACTIONS OF LITHIUM ENOLATES OF PROTECTED GLYCINE ESTERS AND ISOTHIOCYANATES**

*Tetrahedron, 1994, 50, 11509*

H.L. van Maanen, J.T.B.H. Jastrzebski, H. Kooijman, A.L. Spek and G. van Koten

Debye Institute, Department of Metal-Mediated Synthesis, Utrechtdalaan 8, 3584 CH Utrecht, The Netherlands



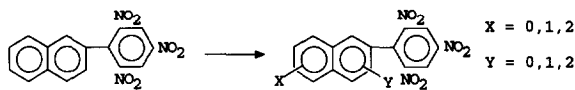
Lithium thiolates **2** (X-ray crystal structure), obtained by reacting lithium enolates and isothiocyanates, were either hydrolysed, affording thiomalonamic esters, or alkylated, giving  $\beta$ -enamino esters.

**STUDIES ON 2,4,6-TRINITROPHENYL SUBSTITUTED NAPHTHALENES. PART I. SYNTHESIS OF NITRO- AND POLYNITRO-2-(2,4,6-TRINITROPHENYL)NAPHTHALENES.**

*Tetrahedron, 1994, 50, 11527*

John S. Bergman, Henry C. Duffin and Clifford H. Wells\*, School of Applied Chemistry, Kingston University, Kingston upon Thames, Surrey KT1 2EE.

Various mono-, di- and tri-nitro derivatives of 2-(2,4,6-trinitrophenyl)naphthalene have been synthesised.

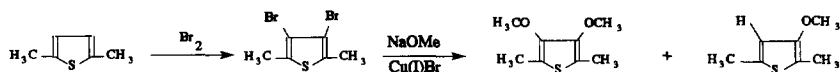


**Copper (I) Catalysed Formation of 3-Methoxy-2,5-dimethylthiophene and 3,4-Dimethoxy-2,5-dimethylthiophene.**

*Tetrahedron, 1994, 50, 11533*

Luc D. Peeters, Sven G. Jacobs, Walter Eevers, Herman J. Geise\*, University of Antwerp (U.I.A.), Department of Chemistry, Universiteitsplein 1, B-2610 Wilrijk, Belgium.

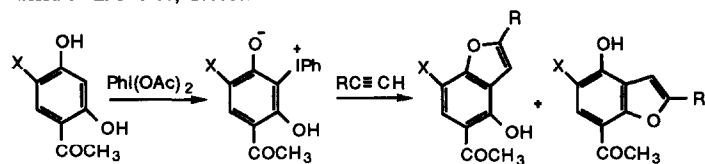
**Graphical Abstract:** 3-Methoxy-2,5-dimethylthiophene and 3,4-dimethoxy-2,5-dimethylthiophene have been prepared from 3,4-dibromo-2,5-dimethylthiophene and sodium methoxide using Cu(I)Br as a catalyst.



**PHENYLIODONIOPHENOLATES FROM 1,3-DIHYDROXYBENZENE DERIVATIVES**

*Tetrahedron, 1994, 50, 11541*

Spyros Spyroudis\* and Petroula Tarantili  
Lab. of Organic Chemistry, Chemistry Dept., University of Thessaloniki,  
Thessaloniki 540 06, Greece.



**CHEMISTRY OF INSECT ANTIFEEDANTS FROM AZADIRACHTA INDICA (PART 17): SYNTHESIS OF MODEL COMPOUNDS OF AZADIRACHTIN. UNUSUAL EFFECT OF REMOTE SUBSTITUENTS ON THE COURSE OF THE OXIDATIVE RING CONTRACTION REACTION.**

Robert B. Grossman and Steven V. Ley,\* Department of Chemistry, University of Cambridge, Lensfield Rd., Cambridge CB2 1EW, UK

