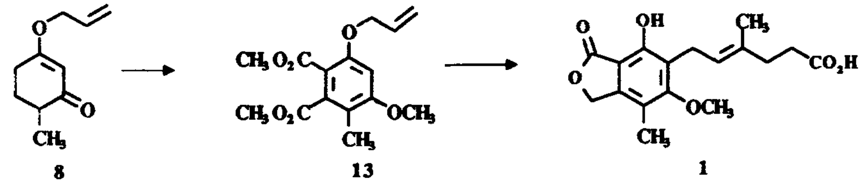
GRAPHICAL ABSTRACTS

Tetrahedron, **1993**, *49*, 4789

THE SYNTHESIS OF MYCOPHENOLIC ACID

John W. Patterson
Syntex Research, 3401 Hillview Avenue, P.O. Box 10850
Palo Alto, California 94304, USA

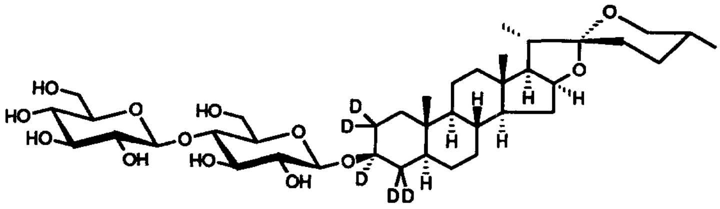
An efficient synthesis of mycophenolic acid 1 from cyclohexane-1,3-dione using the Alder-Rickert reaction is described.



Tetrahedron, **1993**, *49*, 4799

SYNTHESIS OF [2,2,3α,4,4-D_5]CP-88,818 (TIQUESIDE), AN INTERNAL STANDARD FOR A QUANTITATIVE HPLC/MS ASSAY SYSTEM

Michael P. Zawistoski, Jeffrey P. Kiplinger and Peter A. McCarthy
Central Research Division, Pfizer Inc. Eastern Point Road, Groton, Connecticut 06340



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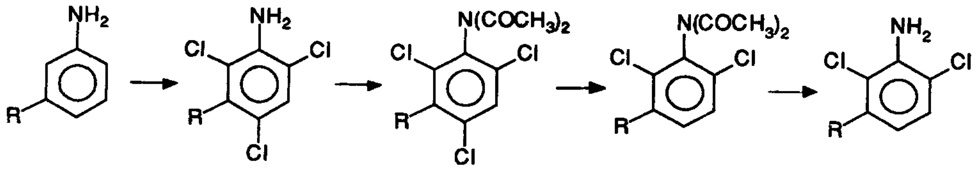
Tetrahedron, **1993**, *49*, 4809

SYNTHESIS OF 2,6-DISUBSTITUTED AND 2,3,6-TRISUBSTITUTED ANILINES.

R. Garth Pews, James E. Hunter, and Richard M. Wehmeyer, Central Research Laboratory, The Dow Chemical Company, Midland, MI 48674, U.S.A.

2,6-Disubstituted and 2,3,6-trisubstituted anilines have been synthesized by a four-step approach involving the selective reduction of the *para* halogen of the diacetanilide derivative utilizing a Pd/C catalyst and formic acid salts as the *in situ* hydrogen donor. The scope of the reaction as well as the effect of modification of the substituents on the amino nitrogen will be discussed.

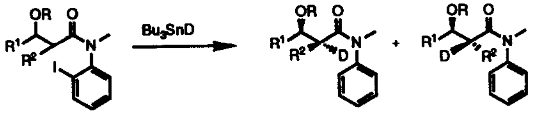


Tetrahedron, **1993**, *49*, 4821

1,2-Asymmetric Induction in Radical Reactions. Deuteration and Allylation Reactions of β-Oxy-*o*-Iodoanilides.

Dennis P. Curran* and Ann Abraham
Department of Chemistry, University of Pittsburgh, Pittsburgh, PA 15260, USA

Chiral radicals were generated by radical translocation reactions of β-oxy-*o*-iodoanilides and their asymmetric deuteration and allylation reactions were studied.

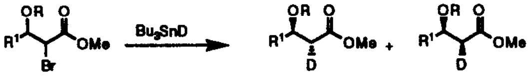


Tetrahedron, **1993**, *49*, 4841

1,2-Asymmetric Induction in Radical Reactions. Deuteration and Allylation Reactions of β-Oxy-α-Bromo Esters.

Dennis P. Curran* and P. S. Ramamoorthy
Department of Chemistry, University of Pittsburgh, Pittsburgh, PA 15260, USA

Chiral radicals were generated from β-oxy-α-bromo esters and their asymmetric deuteration and allylation reactions were studied.

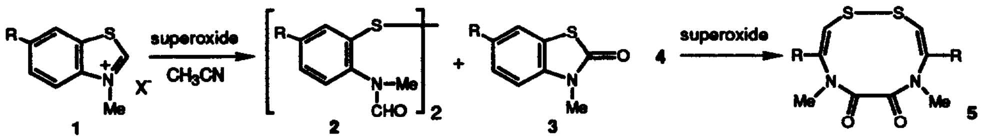


Tetrahedron, **1993**, *49*, 4859

THE REACTION OF 3-METHYLTHIAZOLIUM DERIVATIVES WITH SUPEROXIDE

Takashi Itoh, Kazuhiro Nagata, Mamiko Okada, and Akio Ohsawa,*
School of Pharmaceutical Sciences, Showa University, 1-5-8 Hatanodai,Shinagawa-ku, Tokyo 142, Japan.

The reaction of benzothiazolium salts **1** with superoxide gave novel disulfides **2** accompanied by **3**. The reaction was applied to bithiazolium salts **4** to afford 10 membered-ring **5** which was specific products for superoxide.

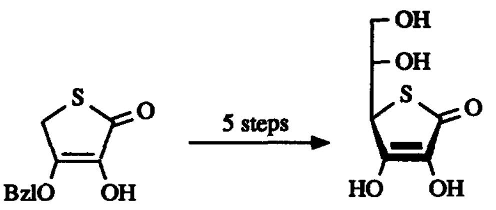


Tetrahedron, **1993**, *49*, 4871

SYNTHESIS OF (±)-THIOASCORBIC ACID

Hans-Dietrich Stachel* and Josef Schachtner
Institut für Pharmazie und Lebensmittelchemie,
Universität München, Sophienstraße 10,
D-8000 München 2

Hermann Lotter[1]
Institut für Pharmazeutische Biologie, Universität
München, Karlstraße 29, D-8000 München 2



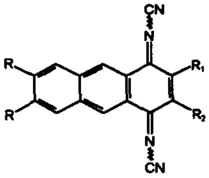
10 (±) **14**

Diastereoselective aldol addition of di-lithiated endiol ether **10** to *tert*-butyldimethylsilyloxy acetaldehyde followed by deprotection furnishes racemic thioascorbic acid (±) **14**.

Tetrahedron, **1993**, *49*, 4881

SYNTHESES, ELECTROCHEMISTRY AND MOLECULAR MODELING OF N,N'-DICYANOQUINONEDIIMINE (DCNQI) DERIVATIVES OF SUBSTITUTED 1,4-ANTHRACENEDIONES: PRECURSORS FOR ORGANIC METALS.

Elena Barranco, Nazario Martín*, José L. Segura and Carlos Seoane*. *Dep.Química Orgánica, Facultad de Química, U. Complutense, 28040-Madrid.* Pilar de la Cruz and Fernando Langa*. *Dep. Química Orgánica, Inorgánica y Bioquímica, Facultad de Química, U. Castilla La Mancha, 45001-Toledo.* Araceli Gonzalez and José M. Pingarrón. *Dep. Química Analítica, Facultad de Química, U. Complutense, 28040-Madrid, Spain.*



The title compounds have been obtained from the corresponding 1,4-anthracenedione derivatives, prepared by different synthetic routes, by reaction with bis(trimethylsilyl)carbodiimide (BTC). The acceptor ability of these compounds can be modulated by the presence of substituents on the DCNQI ring. The *syn/anti* isomers have been studied by molecular mechanics and the results are in good agreement with the ¹H-NMR high resolution spectral data.

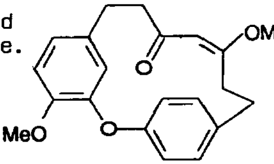
Tetrahedron, **1993**, *49*, 4893

THE SYNTHESIS OF GARUGAMBLIN-1

Borbála Vermes,[a] Gyorgy M. Keserü, Gabriella Mezey Vándor, Mihály Nógrádi*
and Gábor Tóth[a]

Research Group for Alkaloid Chemistry of the Hungarian Academy of Sciences and
Technical Analytical Research Group of the Hungarian Academy of Sciences[a]
H-1521 Budapest, P.O.B. 91, Hungary

The Z isomer of the title compound was synthesised which spontaneously isomerized to the E isomer i.e. to garugamblin 1 (1).



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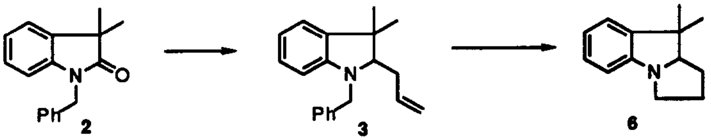
Tetrahedron, **1993**, *49*, 4901

A ROUTE TO THE PYRROLO[1,2-a]INDOLENINE RING SYSTEM VIA INTERMOLECULAR ORGANOLITHIUM ADDITION TO AN OXINDOLE

Keith Jones* and John M.D. Storey
Department of Chemistry, King's College London, Strand, London WC2R 2LS U.K.

Addition of allyllithium to oxindole **2** gives the dihydroindole **3** in good yield. This is elaborated to pyrrolo[1,2-a]indolenine **6**.

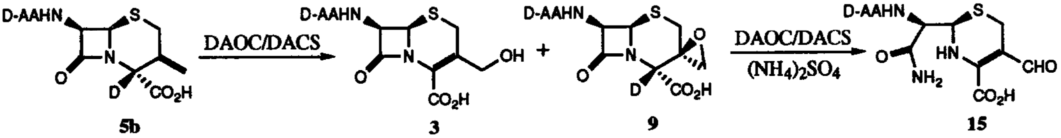


Tetrahedron, **1993**, *49*, 4907

EVIDENCE FOR EPOXIDASE ACTIVITY IN DEACETOXY/DEACETYL-CEPHALOSPORIN C SYNTHASE

Jack E. Baldwin, Robert M. Adlington, Nicholas P. Crouch and Inês A. C. Pereira
The Dyson Perrins Laboratory and the Oxford Centre for Molecular Sciences, University of Oxford, South Parks Road, Oxford OX1 3QY.

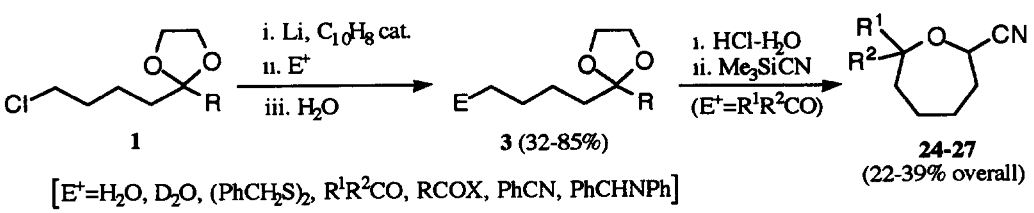
The new 3β-spiroepoxide cepham **9** has been isolated from incubations of the [4-^{2}H]exomethylene cepham **5b** with DAOC/DACS. Evidence suggests that this compound is a shunt metabolic product, which can be further converted by the enzyme to 3-formylcephalosporoate compounds such as **15**.



Tetrahedron, **1993**, *49*, 4923

NEW MASKED δ-LITHIOCARBONYL COMPOUNDS: PREPARATION AND SYNTHETIC APPLICATIONS

J. F Gil, D J. Ramón and M. Yus*
Departamento de Química Orgánica, Facultad de Ciencias, Universidad de Alicante, Apdo. 99, 03080 Alicante, Spain

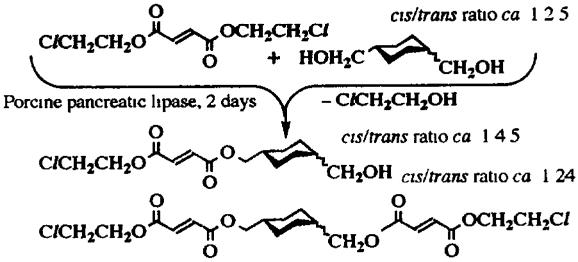


Tetrahedron, **1993**, *49*, 4939

ENZYMATIC SEPARATION OF *CIS/TRANS*-1,4-CYCLOHEXANEDIMETHANOL MIXTURES BY MONO- AND POLYTRANSESTERIFICATION

Shimona Geresh,[1*] Elizabeth Elbaz,[2] and Robert Glaser[2]

[1]The Institutes for Applied Research, and
[2]Department of Chemistry
Ben-Gurion University of the Negev
Beer-Sheva 84110, ISRAEL



Lipase-catalyzed mono- and polytransesterification reactions were used in kinetic separations of a commercial mixture of *cis/trans*-1,4-cyclohexanedimethanol with mono- and diesters as acylating reagents

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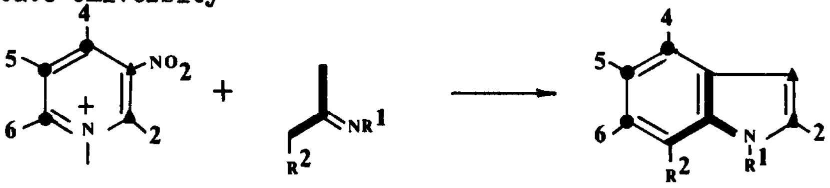
Tetrahedron, **1993**, *49*, 4945

SCHEME OF TRANSFORMATION OF 3-NITROPYRIDINIUM SALTS INTO INDOLES

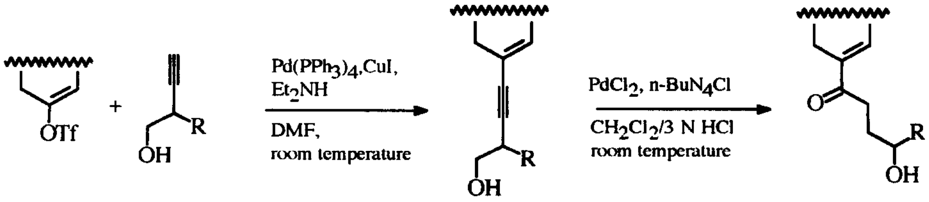
M.A.Yurovskaya*, A.Z.Afanasyev, F.V.Maximova, Yu.G.Bundel
Moscow State University



Tetrahedron, **1993**, *49*, 4955

THE CONVERSION OF VINYL TRIFLATES INTO γ'-HYDROXY-α,β-ENONES

Antonio Arcadi,[a] Sandro Cacchi,[b*] Fabio Marinelli[a]
[a]Dipartimento di Chimica, Ingegneria Chimica e Materiali, Università degli Studi, V. Assergi 4, I-67100 L'Aquila, Italy.
[b]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

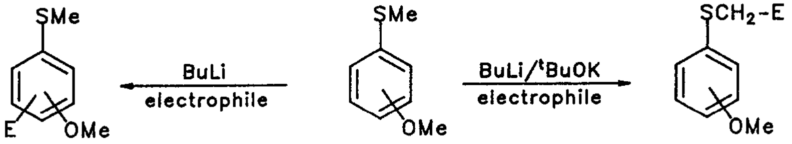


Tetrahedron, **1993**, *49*, 4965

METALLATION REACTIONS. XX. REGIOSELECTIVE METALLATION OF (ALKYLTHIO)METHOXYBENZENES BY SUPERBASES *VERSUS* ORGANOLITHIUM COMPOUNDS

Salvatore Cabiddu*, Claudia Fattuoni, Costantino Floris, Gioanna Gelli and Stefana Melis
Dipartimento di Scienze Chimiche, Università, Via Ospedale 72, I-09124 Cagliari (Italy)

Superbases and butyllithium do not functionalize the same sites: superbases monometallate the thiomethylic carbon while butyllithium the arylic carbon *ortho* to the methoxy group.

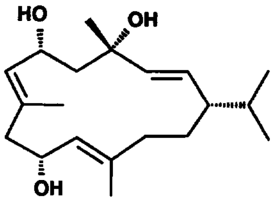


Tetrahedron, **1993**, *49*, 4975

EIGHT NEW CEMBRANOIDS FROM TOBACCO- STRUCTURAL ELUCIDATION AND CONFORMATIONAL STUDIES

Elisabeth Olsson,[a] Jan-Eric Berg[b] and Inger Wahlberg[a]*
[a]Reserca AB, S-118 84 Stockholm, Sweden.
[b]Department of Structural Chemistry, Arrhenius Laboratory, Univeristy of Stockholm, S-106 91 Stockholm, Sweden.

The structural elucidation of 1 and seven related new tobacco cembranoids is described as is a conformational study on two of the compounds by using NMR methods and molecular mechanics calculations.



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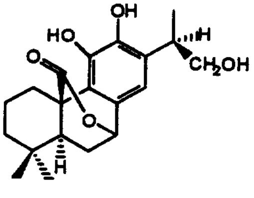
Tetrahedron, **1993**, *49*, 4993

C-16 HYDROXYLATED ABIETANE DITERPENES FROM *SALVIA MELLIFERA*. ABSOLUTE CONFIGURATION AND BIOGENETIC IMPLICATIONS.

Javier G. Luis*[1], Lucía S. Andrés[1], Aurea Perales[2]; [1]C.P.N.O. "Antonio González",Universidad de La Laguna, 38206 Tenerife, Canary Islands, Spain, [2]Crystallographic Department, Instituto Rocasolano, CSIC, 28006 Madrid, Spain.

New C-16 hydroxylated abietane diterpenes and cryptotanshinone and isopimaradiene were isolated from *S. mellifera*. Stereochemistry as determined by X-ray crystallography indicates that the monosubstituted double bond of an isopimaradiene precursor must be oxidated for such abietanes to form.



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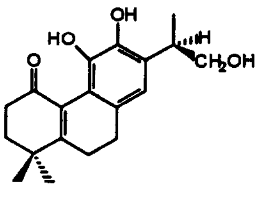

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