

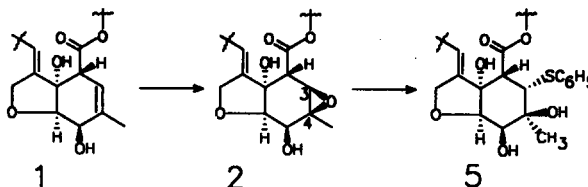
GRAPHICAL ABSTRACTS

Tetrahedron Lett. 1990, 31, 4965

SYNTHESIS, REACTIVITY, AND BIOACTIVITY OF AVERMECTIN B₁-3,4-OXIDE.

Timothy A. Blizzard,* Helmut Mrozik, Franz A. Preiser, and Michael H. Fisher
Merck Sharp and Dohme Research Laboratories
R80M-119 P.O. Box 2000 Rahway NJ 07065

Synthesis of avermectin B₁-3,4-oxide (**2**) from avermectin B₁ (**1**) is reported. Conversion of **2** to **5** and other analogs is described. Activity of **2** and the other analogs against two-spotted spider mites and brine shrimp larvae is discussed briefly.

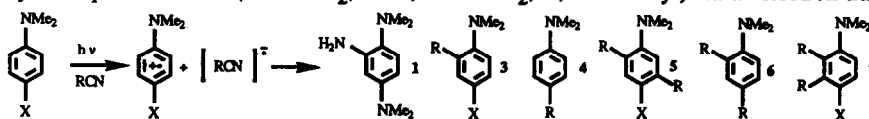


Tetrahedron Lett. 1990, 31, 4969

Photoinduced Electron Transfer between Aromatic Amines and Alkyl Nitriles.

P. Maslak* and J. Kula, Dept. of Chemistry, The Pennsylvania State University, University Park, PA 16802

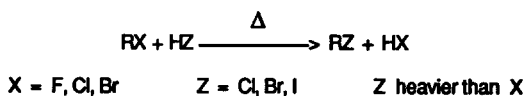
Irradiation of aromatic amines in the presence of alkyl nitriles gives amination product **1** (X = NMe₂, R = Me, Bu, *t*-Bu) or alkylation products **3** - **7** (X = NMe₂, OMe, 4-PhNMe₂, H; R = benzyl) via an electron transfer mechanism.



Tetrahedron Lett. 1990, 31, 4973

HALOGEN EXCHANGE REACTIONS BETWEEN ALKYL HALIDES AND AQUEOUS HYDROGEN HALIDES. A NEW METHOD FOR PREPARATION OF ALKYL IODIDES FROM ALKYL HALIDES.

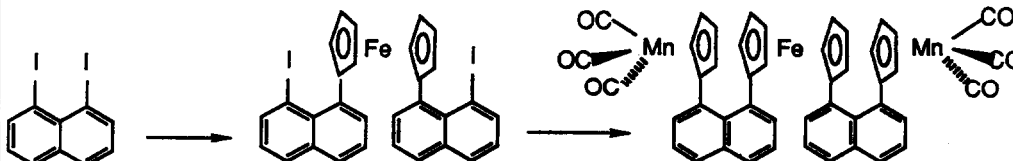
Mohammad Namavari, N. Satyamurthy, Michael E. Phelps, Jorge R. Barrio*
Division of Nuclear Medicine and Biophysics, Department of Radiological Sciences, School of Medicine and the Laboratory of Nuclear Medicine, Los Angeles, California 90024.



Tetrahedron Lett. 1990, 31, 4977

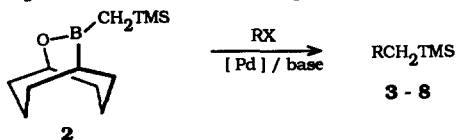
FACE-TO-FACE METALLOCENES. THE SYNTHESIS OF A CYMANTRENE-FERROCENE TRIAD

Dana A. Gronbeck, Stephen A. Matchett and Myron Rosenblum*
Department of Chemistry, Brandeis University, Waltham, M 02254



ALLYL, BENZYL AND PROPARGYL SILANES VIA THE SUZUKI REACTION

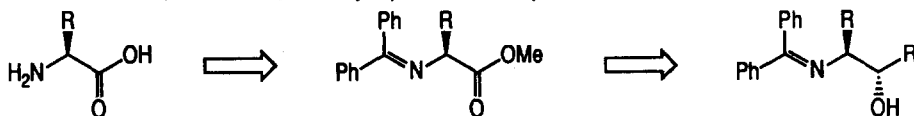
John A. Soderquist,* Braulio Santiago and Isaac Rivera
Department of Chemistry, University of Puerto Rico, Rio Piedras, Puerto Rico 00931



The Pd-catalyzed cross-coupling of vinyl, alkynyl and aryl bromides with the air-stable organoborane, 2, gives excellent yields of the corresponding silylmethylated products, proceeding with complete retention of configuration in the first case.

β -AMINO ALCOHOLS FROM AMINO ACIDS: CHELATION CONTROL VIA SCHIFF BASES

Robin Polt* and Matt A. Peterson, Chemistry Department, University of Arizona, Tucson, AZ 85721

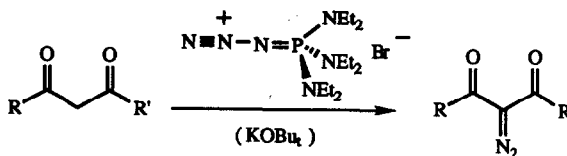


Sequential addition of DIBAL-H and R'Li or R'MgX to Schiff base esters derived from amino acids provides a simple route to β -amino alcohols. The reaction proceeds without racemization, and with high three selectivity.

AZIDOTRIS(DIETHYLAMINO)PHOSPHONIUM BROMIDE: A SELF-CATALYZING DIAZO TRANSFER REAGENT

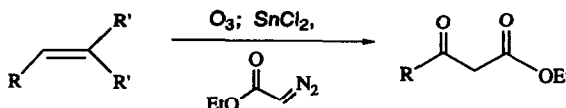
Mark McGuiness and Harold Shechter
Department of Chemistry, The Ohio State University
Columbus, Ohio 43210

Acidic methylene compounds are converted to diazo compounds in high yields by the title reagent using catalytic amounts of base. The reagent is readily prepared in bulk and is exceptionally safe.



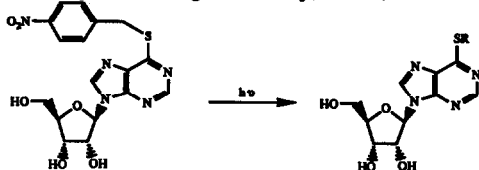
The Conversion of Olefins to β -Keto esters:
Ozonolysis of Olefins Followed by *in situ* Reduction with Tin(II)
Chloride in the Presence of Ethyl Diazoacetate.

Christopher R. Holmquist, Eric J. Roskamp*
Department of Chemistry
Northwestern University
Evanston, Illinois 60208-3113



PHOTOCHEMISTRY OF THE NUCLEOSIDE MEMBRANE

TRANSPORT INHIBITOR 6-[(4-NITROBENZYL)THIO]-9-

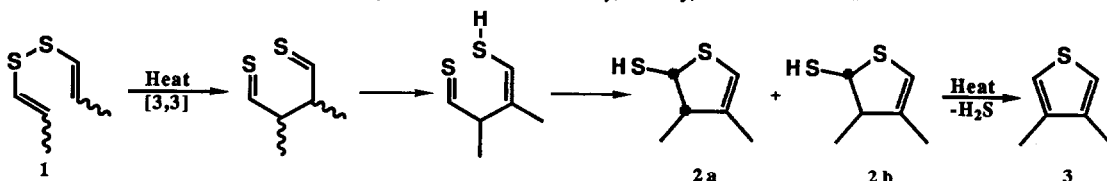
 β -D-RIBOFURANOSYL)PURINE; Steven A. Fleming*, David B. Rawlins, and Morris J. Robins; Department of Chemistry, Brigham Young University, Provo, UT 84602

- 1 R = CH₂C₆H₄NO₂(p)
 2 = H (thione tautomer)
 3 = SCH₂CH₂CH₃
 4 = CH₂CH₂CH₃

ONION ESSENTIAL OIL CHEMISTRY. CIS- AND TRANS-2-MERCAPTO-3,4-DIMETHYL-2,3-DIHYDROTHIOPHENE FROM PYROLYSIS OF BIS(1-PROPENYL) DISULFIDE

Eric Block* and Shu Hai Zhao

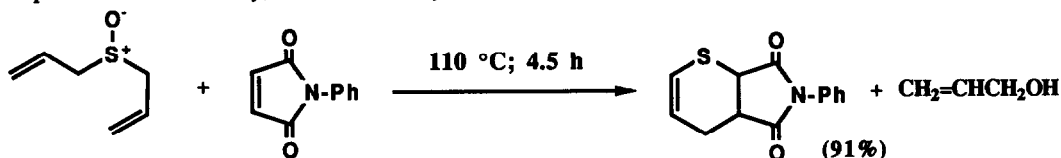
Department of Chemistry, State University of New York at Albany, Albany, New York 12222



DIALLYL SULFOXIDE: A CONVENIENT SOURCE OF THIOACROLEIN FOR DIELS-ALDER TRAPPING

Eric Block* and Shu Hai Zhao

Department of Chemistry, State University of New York at Albany, Albany, NY 12222



EFFICIENT, HIGH YIELD OXIDATION OF THIOLS AND SELENOLS TO DISULPHIDES AND DISELENIDES

Alexander McKillop* and Demet Koyunçu

School of Chemical Sciences, University of East Anglia, Norwich, NR4 7TJ, U.K.

Alain Krief,* Willy Dumont, Philippe Renier and Mahmoud Trabelsi

Laboratoire de Chimie Organique, Facultés Universitaires Notre-Dame de la Paix, 61 rue de Bruxelles, B-5-000 Namur, Belgium.

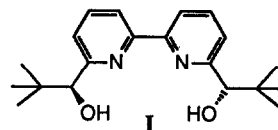
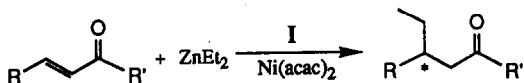
Thiols and selenols are smoothly oxidised in high yield to disulphides and diselenides by sodium perborate at room temperature:



OPTICALLY ACTIVE BIPYRIDINES IN NICKEL CATALYZED ENANTIOSELECTIVE CONJUGATE ADDITION TO ENONES

Carsten Bolm* and Martina Ewald

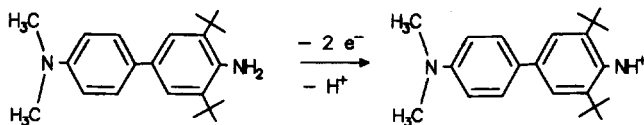
Institut für Organische Chemie der Universität Basel,
St. Johans-Ring 19, 4056 Basel, Switzerland



The use of catalytic amounts of Ni(acac)₂ and I leads to enantioselective addition of diethyl zinc to enones.

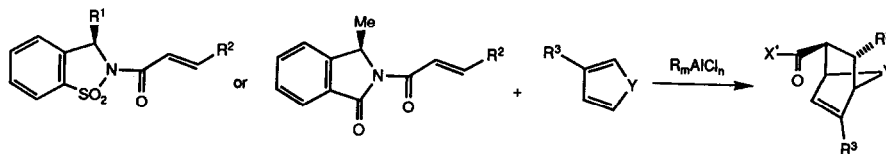
ELECTROCHEMISTRY OF ANILINES. PART 5. SPECTROSCOPIC AND ELECTROCHEMICAL CHARACTERIZATION OF A PERSISTENT BIPHENYLYL NITRENIUM ION

Anton Rieker and Bernd Speiser, Universität Tübingen, Institut für Organische Chemie, Auf der Morgenstelle 18, D-7400 Tübingen 1, FRG



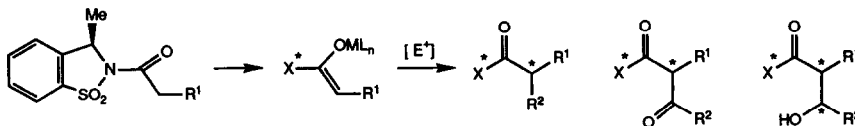
CHIRAL TOLUENE-2,α-SULTAM AUXILIARIES: ASYMMETRIC ALKYLATIONS, ACYLATIONS AND ALCOLIZATIONS OF N-ACYL DERIVATIVES

Wolfgang Oppolzer*, Martin Wills, Martha J. Kelly, Marcel Signer and Julian Blagg
Département de Chimie Organique, Université de Genève, CH-1211 Genève 4, Switzerland



CHIRAL TOLUENE-2,α-SULTAM AUXILIARIES: ASYMMETRIC ACYLATIONS AND ALCOLIZATIONS OF N-ACYL DERIVATIVES

Wolfgang Oppolzer*, Ines Rodriguez, Christian Starkemann and Eric Walther
Département de Chimie Organique, Université de Genève, CH-1211 Genève 4, Switzerland

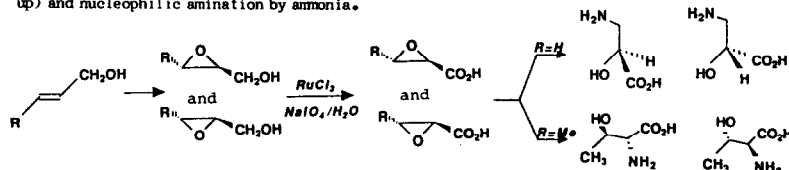


AN EFFICIENT SYNTHESIS OF ENANTIOMERICALLY PURE L AND D-ALLOTHREONINE,(S) AND (R) ISOSERINE BY NUCLEOPHILIC AMINATION OF CHIRAL EPOXYACIDS.

Tetrahedron Lett. 1990, 31, 5023

D. Pons, M. Savignac and J.-P. Genêt, Laboratoire de Synthèse Organique, Associé au CNRS ; Ecole Nationale de Chimie de Paris, 11, rue Pierre et Marie Curie, 75231 Paris - FRANCE.

(S) and (R) isoserine as well as (D) and (L) allothreonine are prepared optically pure in three steps by Sharpless epoxidation of crotyl alcohols followed by a modified procedure of allylic alcohol moiety oxidation ($\text{RuCl}_3/\text{NaIO}_4/\text{H}_2\text{O}$) into water soluble glycidic acids (no aqueous work up) and nucleophilic amination by ammonia.

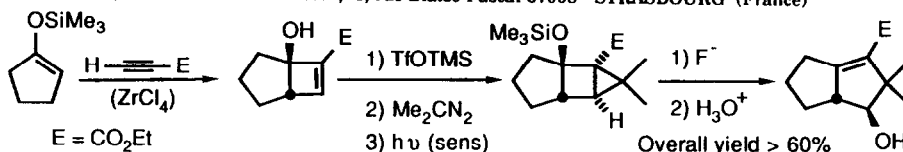


THE BICYCLO [2.1.0] PENTANE WAY TO THE DIQUINANE ALCOHOL PART OF NATURAL TRIQUINANES. A HIGH YIELD ACCESS STARTING FROM TRIMETHYLSILYLOXYCYCLOPENTENE.

Tetrahedron Lett. 1990, 31, 5027

Michel FRANCK-NEUMANN, Michel MIESCH, Laurence GROSS

Laboratoire de Chimie Organique Synthétique, associé au CNRS (URA DO466), Institut de Chimie, Université Louis Pasteur, 1, rue Blaise Pascal 67008 - STRASBOURG (France)



SOLID STATE PHOTODIMERIZATION OF PSORALEN DERIVATIVES

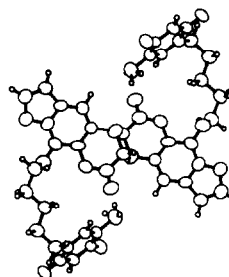
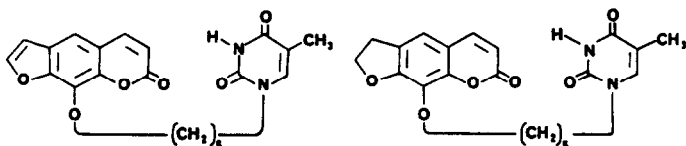
Tetrahedron Lett. 1990, 31, 5031

C. Courseille^a, M. Hospital^a, J.L. Décout^b and J. Lhomme^{*b}

^a Laboratoire de Cristallographie, Université de Bordeaux I, 33405 TALENCE, France

^b L.E.D.S.S., Université Joseph Fourier, BP 53X, 38041 GRENOBLE CEDEX, France

Arrangement in the crystal of 8-alkoxypsoralen 1-thymine derivatives leads to a regio- and stereo-selective photodimerization which produces only the "pyrone-pyrone" *exo* head-to-tail dimers.

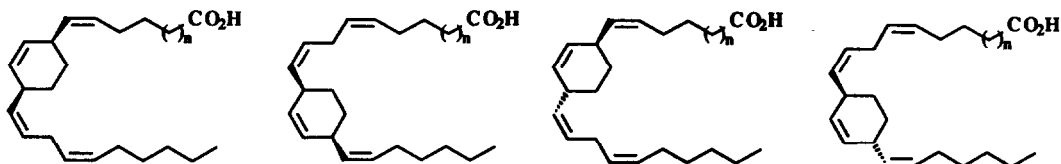


Synthesis of Rigidified Arachidonic Acid Analogues

Tetrahedron Lett. 1990, 31, 5035

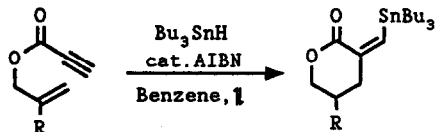
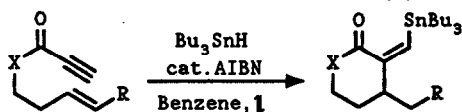
A. Stoller, C. Mioskowski*, Université Louis Pasteur, Laboratoire de Chimie Bio-organique associé au CNRS, Faculté de Pharmacie, 74 route du Rhin BP 24, F-67401 Strasbourg.

J. Millet, C. Sepulchre, F. Bellamy, Laboratoires Fournier, F-21121 Fontaine-les-Dijon.



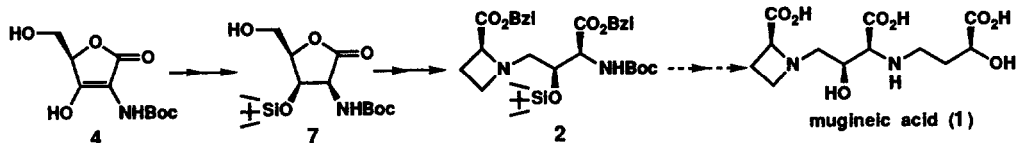
**SYNTHESIS OF α -METHYLENE- δ -VALEROLACTONES
AND α -METHYLENECYCLOHEXANONES VIA RADICAL
CYCLIZATION OF PROPIOLATES AND ACETYLENIC KETONES**

Eun Lee*, Chang Uk Hur and Cheol Min Park
Department of Chemistry, College of Natural Sciences,
Seoul National University, Seoul 151-742, Korea



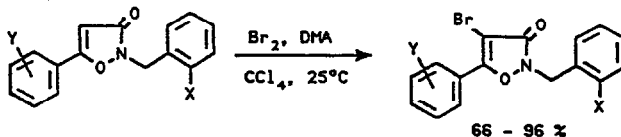
**A NEW STEREOSELECTIVE SYNTHESIS OF A γ -AZETIDINYL- β -HYDROXY- α -AMINO ACID MOIETY OF MUGINEIC ACID---
A FORMAL SYNTHESIS OF MUGINEIC ACID**

Yasumasa Hamada,* Kiyotaka Iwai, and Takayuki Shioiri*
Faculty of Pharmaceutical Sciences, Nagoya City University, Tanabe-dori, Mizuho-ku, Nagoya 467, Japan



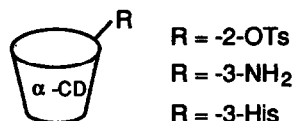
**SYNTHESIS OF 4-BROMO-4-ISOXAZOLIN-3-ONES: APPLICATION
OF BROMINE-N,N-DIMETHYLACETAMIDE COMPLEX**

Kyongtae Kim†*, Eung K. Ryu‡, and Yeongwan Seo†
†Department of Chemistry, Seoul National University, Seoul 151-742
‡Korea Research Institute of Chemical Technology, Daejeon, 300-31, Korea



**MODIFICATIONS OF THE SECONDARY HYDROXYL SIDE OF
 α -CYCLODEXTRIN AND NMR STUDIES OF THEM**

Hiroshi Ikeda, Yuichi Nagano, Yi-qun Du,
Tsukasa Ikeda, and Fujio Toda*
Department of Bioengineering, Tokyo Institute of Technology, O-okayama,
Meguro-ku, Tokyo 152, Japan.

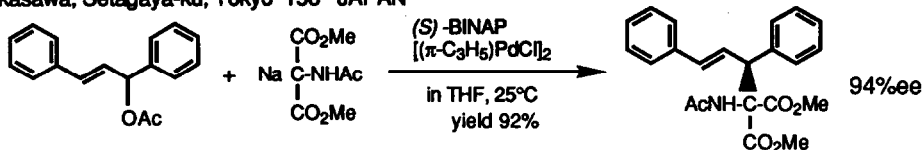


Conformations and configurations of some modified α -CD were studied by some kinds of 2D NMR. These results indicated that Ts group of α -CD-2-OTs was directed perpendicular to z-axis of α -CD and α -CD-3-NH₂ and α -CD-3-His had modified altrose unit with ¹C₄ conformation.

**PALLADIUM-CATALYZED ASYMMETRIC ALKYLATION
VIA π -ALLYL INTERMEDIATE :**

ACETAMIDOMALONATE ESTER AS A NUCLEOPHILE.

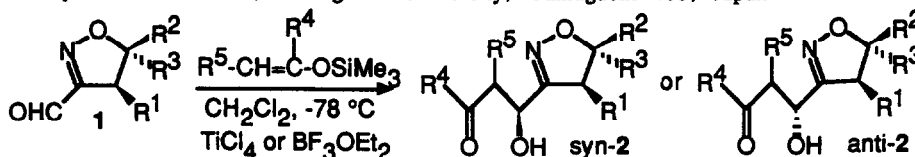
Motowo Yamaguchi,* Toshihide Shima, Takamichi Yamagishi,* and Mitsuhiro Hida.
Department of Industrial Chemistry, Faculty of Technology, Tokyo Metropolitan University
Fukasawa, Setagaya-ku, Tokyo 158 JAPAN



Tetrahedron Lett. 1990, 31, 5049

**syn- and anti-Selective Preparation of
3-Substituted- Δ^2 -isoxazolines**

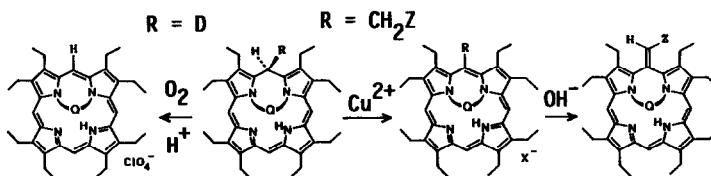
Akio Kamimura* and Shinji Marumo, Department of Chemistry,
Faculty of Liberal Arts, Yamaguchi University, Yamaguchi 753, Japan



Tetrahedron Lett. 1990, 31, 5053

OXIDATION OF N(21),N(22)-ETHENO-BRIDGED 5H-PHLORINS
TO THE MONOCATIONIC N(21),N(22)-ETHENO-BRIDGED
5-ALKYLPORPHYRINS BY Cu(BF₄)₂.

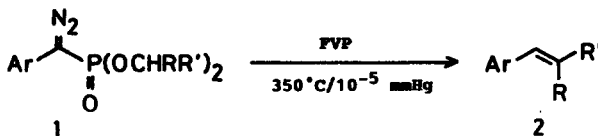
J.-i. SETSUNE,*
Dept. Chem., Kobe Univ.,
Kobe 657, Japan
H. YAMAJI and T. KITAO
Dept. Appl. Chem., Univ.
Osaka Pref., Sakai,
Osaka 591, Japan



Tetrahedron Lett. 1990, 31, 5057

**FLASH VACUUM PYROLYSIS OF DIALKYL
DIAZOBENZYLPHOSPHONATES FORMING STYRENES
VIA A WITTIG TYPE INTERMEDIATE**

Hideo Tomioka*, Masayuki Watanabe, Noriyuki Kobayashi and Katsuyuki Hirai
Department of Industrial Chemistry, Faculty of Engineering,
Mie University, Tsu, Mie 514 Japan



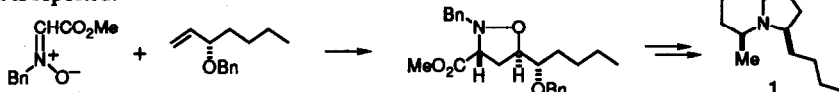
Tetrahedron Lett. 1990, 31, 5061

AN ALTERNATIVE ENANTIOSELECTIVE TOTAL SYNTHESIS OF (+)-MONOMORINE I

Masayuki Ito and Chihiro Kibayashi*

Tokyo College of Pharmacy, Horinouchi, Hachioji, Tokyo 192-03, Japan

An alternative enantioselective total synthesis of (+)-monomorine I (**1**) based on asymmetric nitronene cycloaddition is reported.



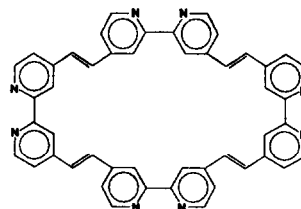
NOVEL POLYTOPIC MACROCYCLIC RECEPTOR MOLECULES CONTAINING MULTIPLE BIPYRIDYL AND DIBENZO-18-CROWN-6 UNITS

Oldrich Kocian^a, Roger J. Mortimer^b and Paul D. Beer^{**}

^a Department of Chemistry, University of Birmingham, U.K.

^b Department of Chemistry, University of Loughborough, U.K.

Polytopic macrocycles containing multiple bipyridyl and dibenzo-18-crown-6 units are described

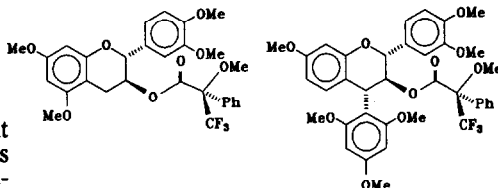


ABSOLUTE CONFIGURATIONS OF FLAVAN-3-OLS AND 4-ARYLFLAVAN-3-OLS via A MODIFIED MOSHER'S METHOD.

Alexander F. Hundt, Johann F.W. Burger, Jan P. Steynberg, Jacobus A. Steenkamp*, and Daneel Ferreira*

Department of Chemistry, University of the Orange Free State, P.O. Box 339, Bloemfontein, 9300 South Africa.

¹H NMR analysis of *R*-(+)-MTPA esters of different sets of enantiomeric flavan-3-ols and 4-arylflavan-3-ols respectively, permits assessment of the absolute configurations at C-3 of these condensed tannin structural units.

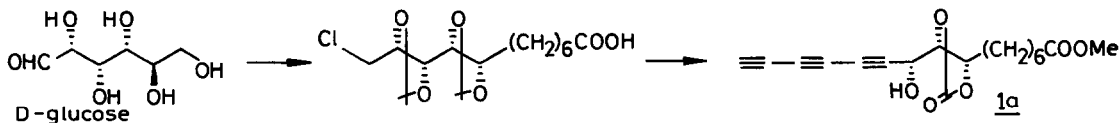


TOTAL SYNTHESIS OF TRIYNE CARBONATE L-660, 631 METHYL ESTER FROM D-GLUCOSE

J S Yadav* and D Rajagopal

Indian Institute of Chemical Technology, Hyderabad 500 007, India

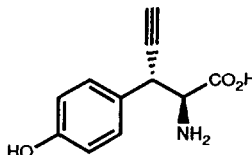
Synthesis of titled compound (**1a**) is described.



ENANTIOSELECTIVE SYNTHESIS OF (+)-(2S,3S)-3-ETHYNYLTYROSINE

Antony N. Shaw*, Roland E. Dolle and Lawrence I. Kruse
SmithKline Beecham Pharmaceuticals, Research Department, The Frythe,
Welwyn, Hertfordshire, U.K. AL6 9AR

A 15-step synthesis of the title amino acid is described. The tyrosine was designed as a potential dual enzyme-activated irreversible inhibitor of dopamine β -hydroxylase.



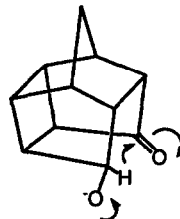
EMPIRICALLY OPTIMIZED "TRANSITION STATE MODELS"

Michael J. Sherrod

Department of Chemistry, Emory University, Atlanta, Georgia 30322, USA.

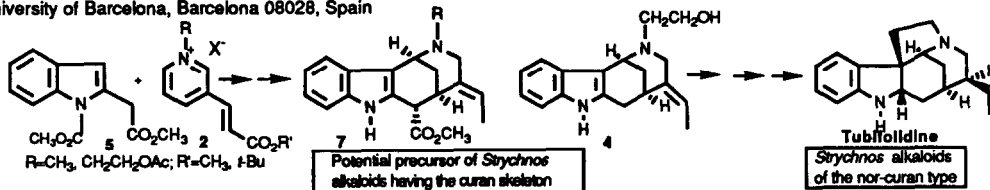
Current Address: University Chemical Laboratory, Lensfield Road, Cambridge CB2 1EW, England.

The predictive ability of molecular mechanics-based transition state models can be empirically optimized by systematic adjustment of the related geometric parameters and force constants. A previously developed force field for hydride transfers serves as an example of the process.



NUCLEOPHILIC ADDITION OF INDOLE-2-ACETIC ESTER ENOLATES TO N-ALKYLPYRIDINIUM SALTS. A FORMAL SYNTHESIS OF THE STRYCHNOS ALKALOIDS TUBIFOLIDINE AND TUBIFOLINE

M. Alvarez, M. Salas, A. de Veciana, R. Lavilla, and J. Bosch*. Laboratory of Organic Chemistry, Faculty of Pharmacy, University of Barcelona, Barcelona 08028, Spain



DEOXYGENATION OF ALCOHOLS BY THE REACTIONS OF THEIR XANTHATE ESTERS WITH TRIETHYLSILANE: AN ALTERNATIVE TO TRIBUTYLTIN HYDRIDE IN THE BARTON-McCOMBIE REACTION

J. Nicholas Kirwan, Brian P. Roberts*, and Colin R. Willis

Christopher Ingold Laboratories, University College London, 20 Gordon Street, London WC1H 0AJ, U.K.

