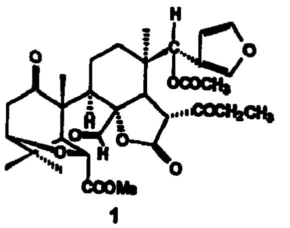
GRAPHICAL ABSTRACTS

Tetrahedron Letters, **1994**, *35*, 3437

CEDRELANOLIDE I, A NEW LIMONOID FROM CEDRELA SALVADORENSIS. Rosabel Segura, José Calderón, Rubén A. Toscano, Atilano Gutiérrez, Instituto de Química, Universidad Nacional Autónoma de México, Coyoacán 04510, México D.F., México.
Rachel Mata, Facultad de Química, Universidad Nacional Autónoma de México, Coyoacán 04510, México, D.F., México.

A new rearranged limonoid, cedrelanolide I (1), has been isolated from the stembark of *Cedrela salvadorensis* (Meliaceae). The structure was unambiguously established by X-ray diffraction analysis.

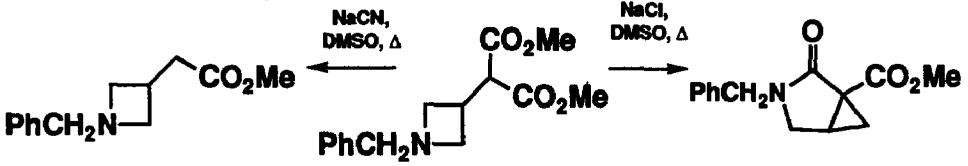


1

Tetrahedron Letters, **1994**, *35*, 3441

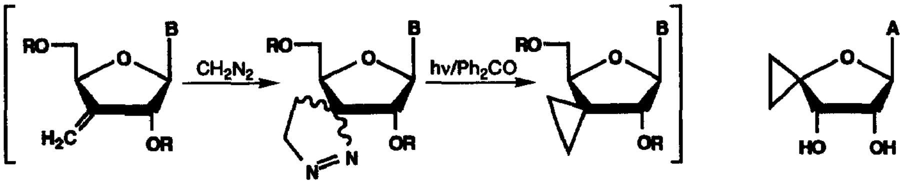
DIVERGENT MECHANISMS FOR THE DEALKOXYCARBONYLATION OF A 2-(3-AZETIDINYL)MALONATE BY CHLORIDE AND CYANIDE. Paul J. Gilligan* and Paul J. Krenitsky, The DuPont Merck Pharmaceutical Co., P.O. Box 80353, Wilmington, DE 19880-0353

Dealkoxycarbonylation of dimethyl 2-(1-benzylazetidin-3-yl)propane-1,3-dioate with NaCN or NaCl in wet DMSO afforded different products.



Tetrahedron Letters, **1994**, *35*, 3445

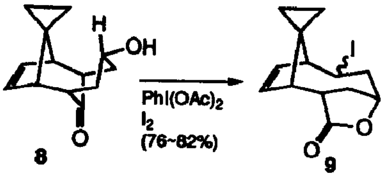
SYNTHESIS OF 3'-DEOXYADENOSINE-3'-SPIROCYCLOPROPANE, 3'-DEOXYURIDINE-3'-SPIROCYCLOPROPANE, AND 5'-DEOXY-4',5'-METHANOADENOSINE **Vicente Samano and Morris J. Robins,*** Department of Chemistry, Brigham Young University, Provo, UT 84602, U.S.A.



Tetrahedron Letters, **1994**, *35*, 3449

SYNTHETIC STUDIES ON TAXOL. PART II. β-FRAGMENTATION OF ALKOXY RADICALS IN MEDIUM-SIZED CARBOCYCLE SYNTHESIS.
Jonghoon Oh, Jinhwa Lee, Shu-juan Jin, and Jin Kun Cha*
Department of Chemistry, University of Alabama, Tuscaloosa, AL 35487, U.S.A.

An efficient excision of the keto bridge present in tricyclo[4.3.1.1^{2,5}]undecanones or tricyclo[5.3.1.1^{2,6}]-dodecanones (*e.g.*, **8** → **9**) has been accomplished by β-fragmentation of an alkoxy radical by the procedure of Suárez [$PhI(OAc)_2$-I_2].

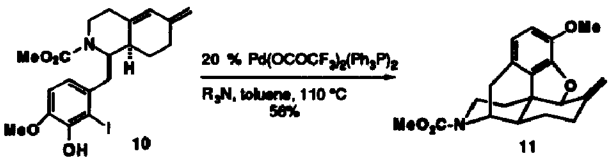


Tetrahedron Letters, **1994**, *35*, 3453

Preparation of Opium Alkaloids by Palladium Catalyzed Bis-Cyclizations. Formal Total Synthesis of Morphine.

Chang Y. Hong and Larry E. Overman,*
Department of Chemistry, University of California, Irvine, CA 92717-2025, USA

Palladium catalyzed cyclization of hydroisoquinoline diene **10** to afford the pentacyclic opiate **11** is the central step in a new synthesis of opium alkaloids.



10

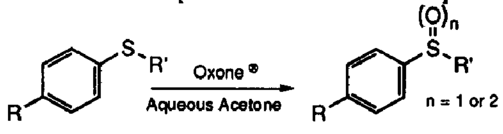
11

Tetrahedron Letters, **1994**, *35*, 3457

A Mild, Inexpensive and Practical Oxidation of Sulfides.

Kevin S. Webb, SmithKline Beecham Pharmaceuticals,
Synthetic Chemistry Department, P.O.Box 1539, King of Prussia, Pennsylvania 19406

Several sulfides have been converted to sulfoxides or sulfones in modest to excellent yields. The oxidant was oxone® and the reactions were performed in 12.5% aqueous acetone and buffered to pH 7.5 - 8.0 with sodium bicarbonate.

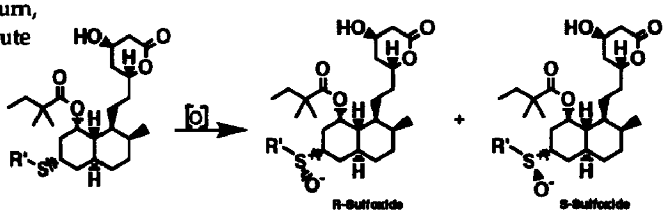


Tetrahedron Letters, **1994**, *35*, 3461

DIASTEREOSELECTIVE OXIDATION OF SULFIDES TO SULFOXIDES. SYNTHESIS OF NOVEL C-6 SULFOXY TETRAHYDROMEVINIC ACIDS.

Kathleen M. Poss,* Sam T. Chao, Eric M. Gordon, Peggy J. McCann, Dinos P. Santafianos,
Sarah C. Traeger, Ravi K. Varma, and William N. Washburn,
The Bristol-Myers Squibb Pharmaceutical Research Institute
P.O. Box 4000, Princeton, New Jersey 08543-4000

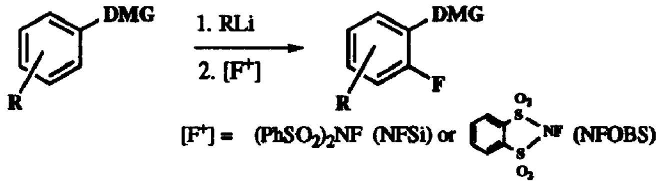
The synthesis and diastereoselective oxidation of novel tetrahydromevinic acid lactone sulfides to sulfoxides is described.



Tetrahedron Letters, **1994**, *35*, 3465

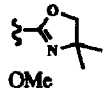
DIRECTED *ORTHO* METALATION - MEDIATED F⁺ INTRODUCTION. REGIOSPECIFIC SYNTHESIS OF FLUORINATED AROMATICS

Victor Snieckus,*[1] Francis Beaulieu,[1] Kunihiko Mohri,[1] Wei Han,[2] Christopher K. Murphy,[2] and Franklin A. Davis*[2]
[1]Guelph-Waterloo Centre for Graduate Work in Chemistry, University of Waterloo, Waterloo, Ontario, CANADA N2L 3G1
[2]Department of Chemistry, Drexel University, Philadelphia, PA 19104, USA



DMG = Directed Metalation Group

CONHt-Bu



OMe

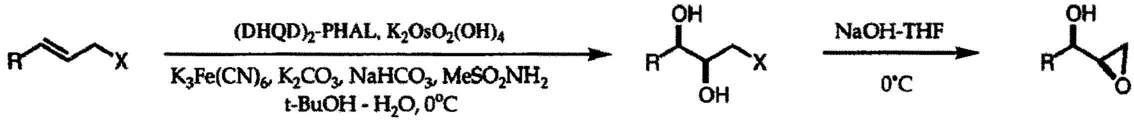
OCSNEt$_2$
SO$_2$NHMe
SO$_2$NR$_2$ (R = Me, Et)
S(O)$_n$t-Bu (n = 1,2)

Tetrahedron Letters, **1994**, *35*, 3469

Asymmetric Dihydroxylation of Primary Allylic Halides and a Concise Synthesis of (–)-Diepoxybutane

Koen P.M. Vanhessche, Zhi-Min Wang and K.B. Sharpless*
Department of Chemistry, The Scripps Research Institute, 10666 North Torrey Pines Road, La Jolla, CA 92037, U.S.A.

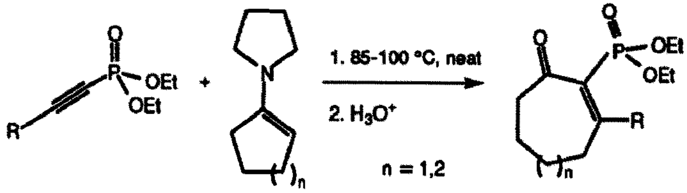
The asymmetric dihydroxylation (AD) of primary allylic halides is described. Subsequent base treatment affords *threo*-1,2-epoxy-3-ols in high yield.



Tetrahedron Letters, **1994**, *35*, 3473

CYCLOADDITION OF ENAMINES WITH ALKYNYLPHOSPHONATES. A ROUTE TO FUNCTIONALIZED MEDIUM SIZED RINGS.

Suzanne M. Ruder* and Bradley K. Norwood. Virginia Commonwealth University, Richmond, VA 23284.

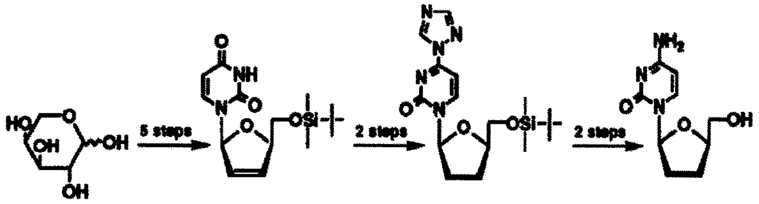


Cyclic enamines and alkynyl phosphonates undergo reaction and thermal rearrangement to give ring expansion by two carbons, providing seven and eight membered rings.

Tetrahedron Letters, **1994**, *35*, 3477

A Stereospecific Synthesis of 2',3'-Dideoxy-β-L-cytidine (β-L-ddC), A Potent Inhibitor Against Human Hepatitis B Virus (HBV) and Human Immunodeficiency Virus (HIV)

Tai-Shun Lin,* Mei-Zhen Luo, and Mao-Chin Liu, Department of Pharmacology and The Comprehensive Cancer Center, Yale University School of Medicine, New Haven, Connecticut 06520-8066, USA

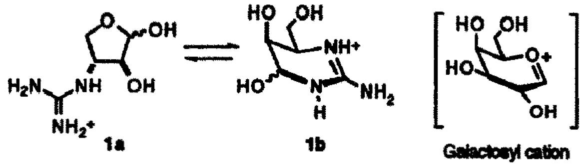


Tetrahedron Letters, **1994**, *35*, 3481

SYNTHESIS OF A GUANIDINO-SUGAR AS A GLYCOSYL CATION MIMIC.

Christopher H. Fotsch and Chi-Huey Wong,*
Department of Chemistry, The Scripps Research Institute, 10666 North Torrey Pines Road, La Jolla, California 92037

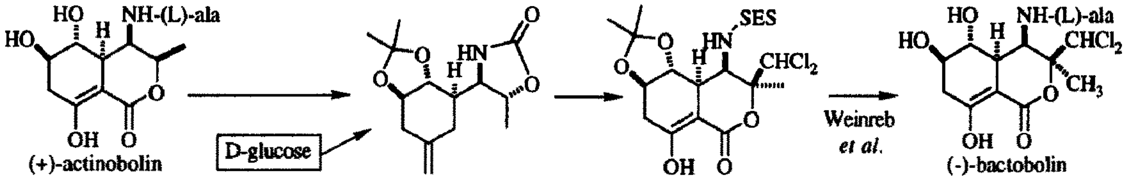
The synthesis and biological properties of a guanidine threose (1) are described.



Tetrahedron Letters, **1994**, *35*, 3485

SYNTHESIS OF (-)-BACTOBOLIN FROM D-GLUCOSE AND FROM (+)-ACTINOBOLIN

Dale E. Ward*, Yuanzhu Gai, and Brian F. Kaller
Department of Chemistry, University of Saskatchewan, Saskatoon, CANADA, S7N 0W0.

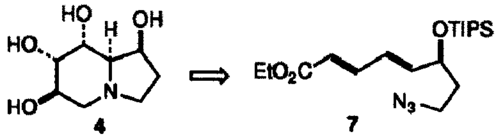


Tetrahedron Letters, **1994**, *35*, 3489

AN AZIDE-DIENE CYCLOADDITION APPROACH TO INDOLIZIDINE ALKALOIDS. AN ENANTIOSELECTIVE SYNTHESIS OF 6,7-DIEPICASTANOSPERMINE

No-Soo Kim, Chul Hyun Kang and Jin Kun Cha*
Department of Chemistry, University of Alabama,
Tuscaloosa, AL 35487, U.S.A.

A short, enantioselective synthesis of 6,7-di*epi*-castanospermine (4) has been achieved by an intramolecular azide-diene 1,3-dipolar cycloaddition, followed by ring-opening of the resulting vinyl-aziridine and subsequent dihydroxylation.



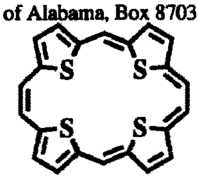
Tetrahedron Letters, **1994**, *35*, 3493

TETRATHIA[22]ANNULENE[2,1,2,1]. A NEW THIOPHENE-DERIVED AROMATIC MACROCYCLE.

Zhongying Hu and Michael P. Cava*, Department of Chemistry, The University of Alabama, Box 870336,
Tuscaloosa, AL 35487-0336, U.S.A.

The first neutral aromatic porphyrinoid containing only sulfur bridges, tetrathia[22]annulene[2,1,2,1] (4), has been synthesized in four steps from 2-bromothiophene.

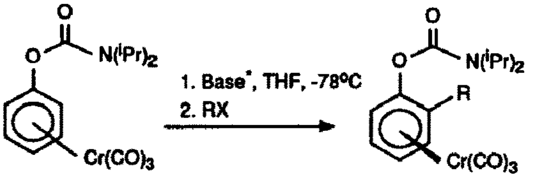
4



Tetrahedron Letters, **1994**, *35*, 3497

PLANAR CHIRAL ARENE TRICARBONYLCHROMIUM COMPLEXES VIA ENANTIOSELECTIVE DEPROTONATION / ELECTROPHILE ADDITION REACTIONS

E. Peter Kündig* and Anna Quattropani
Département de Chimie Organique, Université de Genève, 30 quai Ernest Ansermet, CH-1211 Genève 4, Switzerland



R = SiMe$_3$, CO$_2$Me, CONMe$_2$, Me, CHO

yields : 71 - 93%

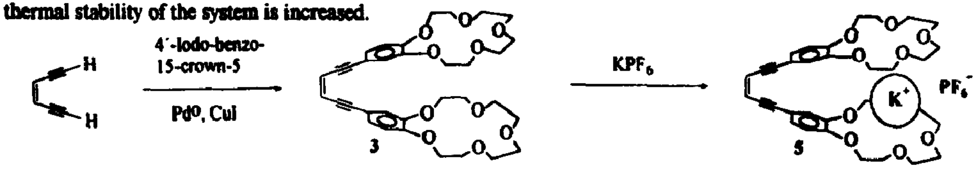
ee : 64 - 73 %
87 - 95 % after cryst.

Tetrahedron Letters, **1994**, *35*, 3501

SYNTHESIS AND REACTIVITY OF THE FIRST BIS(CROWN ETHER) ENEDIYNE

Burkhard König* and Heike Rütters, Institut für Organische Chemie
der Technischen Universität Braunschweig, Hagenring 30, D-38106 Braunschweig, Germany

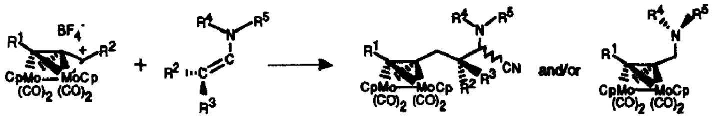
The bis(crown ether) enediyne 3 was obtained *via* a palladium catalyzed coupling reaction. By complexation with sodium and potassium ions the thermal stability of the system is increased.



Tetrahedron Letters, **1994**, *35*, 3505

Transition Metal Mediated Three Component Coupling Reactions with Enamines[1]

Klaus-Dieter Roth, Institut für Organische Chemie, Universität Erlangen, Henkestr. 42, 91054 Erlangen

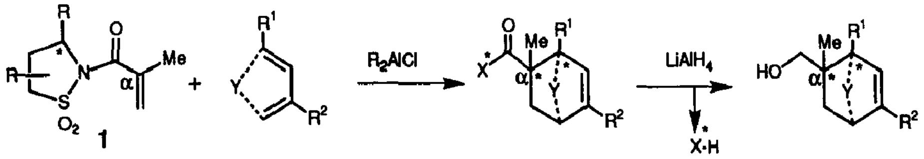


Three component coupling reactions of molybdenum stabilized propargyl cations with enamines and TMSCN are described. The solvent-dependent product distribution is discussed, leading to a general reaction scheme.

Tetrahedron Letters, **1994**, *35*, 3509

Asymmetric Diels-Alder Reactions of Chiral N-Methacryloylsultams with 1,3-Dienes

Wolfgang Oppolzer,* Boris M. Seletsky and Gérald Bernardinelli
Département de Chimie Organique, Université de Genève, CH-1211 Genève, Switzerland

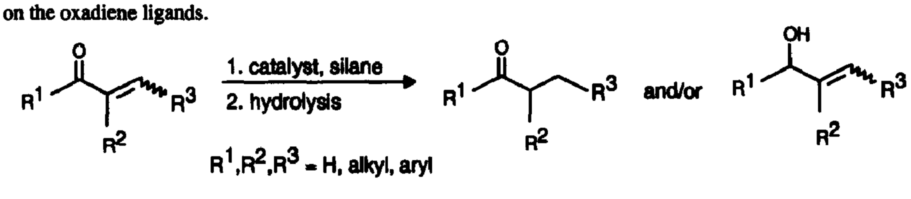


Tetrahedron Letters, **1994**, *35*, 3513

MOLYBDENUM OXADIENE CATALYSTS FOR THE CHEMOSELECTIVE HYDROSILYLATION OF α,β-UNSATURATED KETONES AND ALDEHYDES.

Thomas Schmidt, Max-Planck-Institut für Kohlenforschung, Kaiser-Wilhelm-Platz 1, D-45470 Mülheim an der Ruhr, Germany

Molybdenum oxadiene catalysts for the hydrosilylation of α,β-unsaturated carbonyl compounds exhibit variable chemoselectivity depending on the oxadiene ligands.



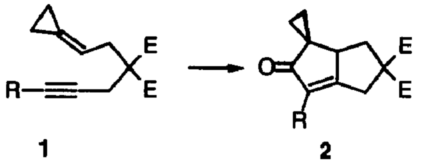
The Virtue of Methylenecyclopropane Terminators in Intramolecular Pauson-Khand Reactions

Tetrahedron Letters, **1994**, *35*, 3517

Andreas Stolle,[a,b] Heike Becker,[a] Jacques Salaün,[b] Armin de Meijere[a]

Institut für Organische Chemie, Georg-August-Universität Göttingen,[a] Tammannstraße 2, D-37077 Göttingen, Germany – Laboratoire des Carbocycles, Institut de Chimie Moléculaire d'Orsay,[b] Université de Paris-Sud, F-91405 Orsay, France

1,6-Enynes with a methylenecyclopropane moiety at the end undergo intramolecular Pauson-Khand reactions particularly efficiently.



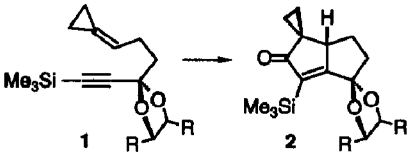
Enantioselective Construction of Spiro{cyclopropane-1,4'-bicyclo[3.3.0]oct-1-en-3-ones}

Tetrahedron Letters, **1994**, *35*, 3521

Andreas Stolle,[a,b] Heike Becker,[a] Jacques Salaün,[b] Armin de Meijere[a]

Institut für Organische Chemie, Georg-August-Universität Göttingen,[a] Tammannstraße 2, D-37077 Göttingen, Germany – Laboratoire des Carbocycles, Institut de Chimie Moléculaire d'Orsay,[b] Université de Paris-Sud, F-91405 Orsay, France

Intramolecular Pauson-Khand reactions of enynes **1** with a chiral 1,3-dioxolane moiety gave spiro{cyclopropane-1,4'-bicyclo[3.3.0]oct-1-en-3-ones} **2** with a diastereoselectivity of up to 6.4 : 1.

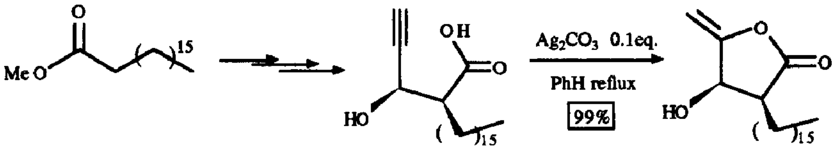


SILVER CATALYZED HETEROCYCLIZATION: FIRST TOTAL SYNTHESIS OF THE NATURALLY OCCURING CIS 2-HEXADECYL-3-HYDROXY-4-METHYLENE BUTYROLACTONE

Tetrahedron Letters, **1994**, *35*, 3525

V.Dalla, P. Pale,*
Laboratoire de chimie organique physique, associé au CNRS, Université de Reims-Champagne-Ardenne
51100 Reims, France.

The title compound was obtained in 4 steps with an overall yield of 64% with the silver-catalyzed cycli-zation of the corresponding substituted β- hydroxy-γ - acetylenic acid as the key-step.

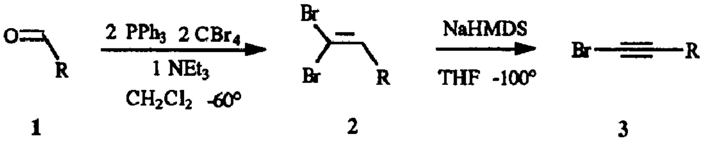


AN IMPROVED PROCEDURE FOR ALDEHYDE-TO-ALKYNE HOMOLOGATION VIA 1,1-DIBROMOALKENES; SYNTHESIS OF 1-BROMOALKYNES.

Tetrahedron Letters, **1994**, *35*, 3529

D. Grandjean, P. Pale, J. Chuche
Laboratoire de chimie organique physique, URA CNRS 459, Université de Reims-Champagne-Ardenne
51100 Reims, France.

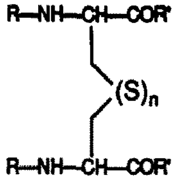
1,1-Dibromoalkenes, 1-bromoalkynes and alkynes could be obtained in excellent yields by homologation of functionnalized aldehydes through a modified Mc Kelvie-Corey procedure.



Tetrahedron Letters, **1994**, *35*, 3531

Preparation of Trisulfide Derivatives of Cystine and their Formation as By-products during Peptide Synthesis.

B. Parmentier, M. Moutiez, A. Tartar and C. Sergheraert*.
Service de Chimie des Biomolécules, associé au CNRS.Institut Pasteur de Lille. 1 rue Calmette 59019 Lille (France).



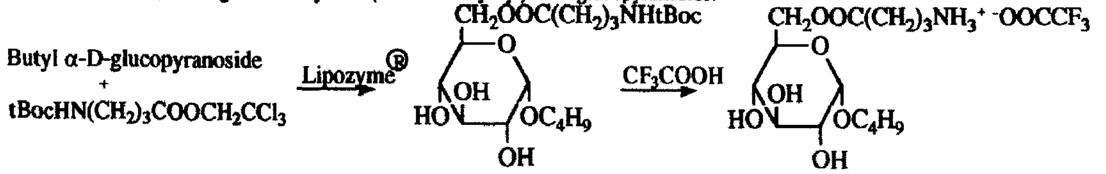
The formation of stable trisulfide derivatives of cystine (n=3) has been detected during peptide synthesis.
A method to prepare these compounds and higher polysulfides (n = 4 to 5) is described.

Tetrahedron Letters, **1994**, *35*, 3535

ENZYMATIC SYNTHESIS OF AMINO ACID ESTER OF BUTYL α-D-GLUCOPYRANOSIDE.

Jean Fabre, François Paul*, Pierre Monsan, Casimir Blonski◇, Jacques Périé◇. BioEurope, 4 impasse Didier Daurat, BP 4196, 31031 Toulouse Cedex, France. ◇Laboratoire de Chimie Organique Biologique, associé au C.N.R.S., Université Paul Sabatier, 118 route de Narbonne, 31062 Toulouse, France.

The regiospecific enzymatic esterification of butyl α-D-glucopyranoside with trichloro 2,2,2 ethyl N-tBoc 4-amino butyrate was achieved using Lipozyme® avoiding time consuming protection-deprotection steps. The tBoc group was subsequently removed using trifluoroacetic acid, leading to the butyl 6-0-(4-amino butyroyl)-α-D-glucopyranoside.

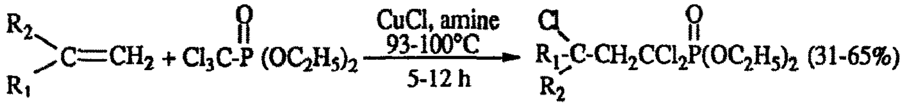


Tetrahedron Letters, **1994**, *35*, 3537

Addition of diethyl trichloromethylphosphonate to olefins catalysed by copper complexes.

Didier Villemin[a], Frédérique Sauvaget[a] and Milan Hàjek[b]; a) ISMRA, Ecole Nationale Supérieure d'Ingénieurs de Caen, URA 480, F-14050 Caen cedex, France;b) Institute of Chemical Process Fundamentals, Academy of Sciences of Czech Republic, 16502 Prague 6-Suchdol, Czech Republic

$Cl_3CPO(OC_2H_5)_2$ is added on olefins by non-chain catalytic reactions catalysed by copper amine complexes.



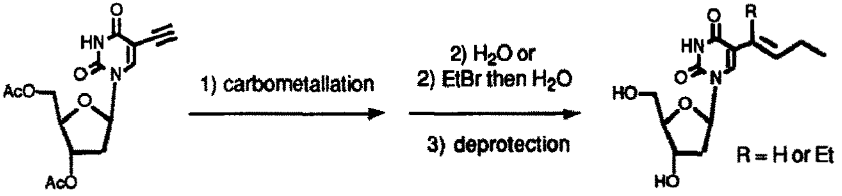
$$\underset{R_1}{\overset{R_2}{>}}C{=}CH_2 + Cl_3C\text{-}\overset{O}{\overset{\|}{P}}(OC_2H_5)_2 \xrightarrow[\text{5-12 h}]{\text{CuCl, amine} \atop \text{93-100°C}} R_1\text{-}\overset{Cl}{\underset{R_2}{C}}\text{-}CH_2CCl_2\overset{O}{\overset{\|}{P}}(OC_2H_5)_2 \ (31\text{-}65\%)$$

Tetrahedron Letters, **1994**, *35*, 3539

Carbometallation of 5-ethynyl-pyrimidine-2'-deoxy Nucleosides: Preparation of 5-(1-[E]-butenyl)- and 5-(3-[E]-hex-3-enyl)-2'-deoxyuridine.

Stanislas Czernecki,* Antoine Hoang and Jean-Marc Valéry.

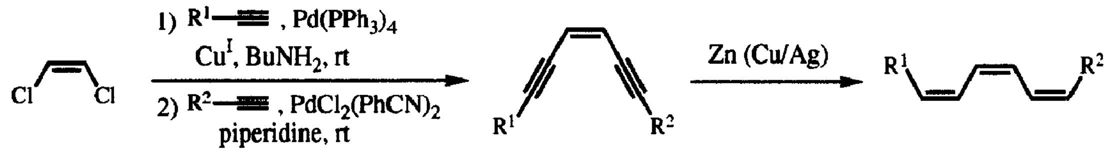
Laboratoire de Chimie des Glucides; Université Pierre et Marie Curie.
4 Place Jussieu. 75005 PARIS (FRANCE).



Tetrahedron Letters, **1994**, *35*, 3543

Convenient One-Pot Synthesis of Functionalized Unsymmetrical (Z) or (E)-Enediynes From (Z) or (E) 1,2-Dichloroethylene. An Efficient Route to (Z,Z,Z) and (Z,E,Z)-Trienes

Mouâd Alami*, Benoit Crousse and Gérard Linstrumelle Laboratoire de chimie, Ecole Normale Supérieure, 24 rue Lhomond, 75231 Paris Cedex 05, France

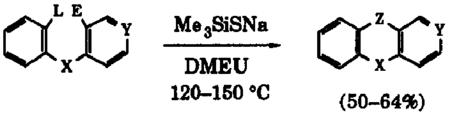


Tetrahedron Letters, **1994**, *35*, 3545

Sodium Trimethylsilanethiolate in Novel Cyclizations for Synthesis of Aromatic Heterotricyclic Compounds.

Long-Li Lai,*,† Pen-Yuan Lin,† Wen-Hong Huang,† Min-Jen Shiao,† and Jih Ru Hwu,*,†,§ †Institute of Chemistry, Academia Sinica, Nankang, Taiwan 11529, R.O.C. and §Department of Chemistry, National Tsing Hua University, Hsinchu 30043, R.O.C.

A new method was developed for the synthesis of aromatic heterotricyclic compounds from diaryl starting materials by use of Me_3SiSNa in 1,3-dimethyl-2-imidazolidinone.



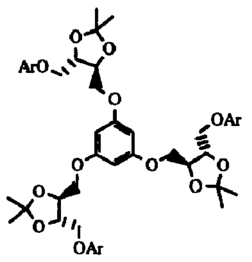
E = OMe, COOMe, CN
X = none, O, C=O
Z = O, C(=O)O, C(=S)NH
L = F, OMe
Y = C, N

Tetrahedron Letters, **1994**, *35*, 3547

SYNTHESIS AND CHARACTERIZATION OF OPTICALLY ACTIVE, HOMOCHIRAL DENDRIMERS.

Hak-Fun Chow*, Lai Fan Fok, and Chi Ching Mak
Department of Chemistry, The Chinese University of Hong Kong,
Shatin, NT, HONG KONG

(2*R*, 3*R*)-Tartaric acid is used to construct optically active, homochiral, monodisperse generation zero dendrimer 1 and generation one dendrimer.



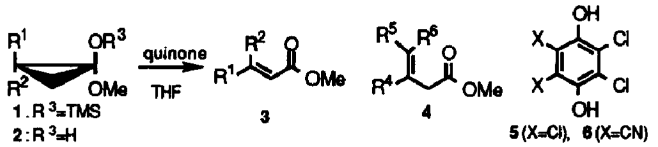
1

Tetrahedron Letters, **1994**, *35*, 3551

FORMATION OF UNSATURATED ESTERS IN THE REACTION OF CYCLOPROPANONE ACETALS WITH QUINONES UNDER NON-IRRADIATED CONDITIONS.

Manabu Abe and Akira Oku*, Department of Chemistry and Materials Technology, Kyoto Institute of Technology, Matsugasaki, Sakyo-ku, Kyoto 606, Japan.

Unsaturated esters 3 or its mixture with 4 were formed in the non-irradiated SET reaction of 1 or 2 with DDQ or chloranil.

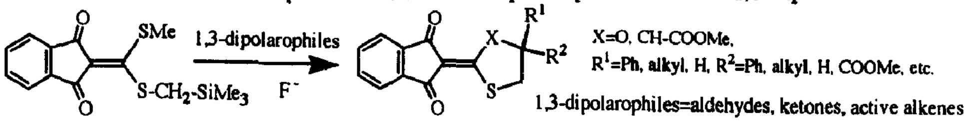


Tetrahedron Letters, **1994**, *35*, 3555

S-SILYLMETHYL-SUBSTITUTED KETENE DITHIOACETALS AS SYNTHETIC EQUIVALENT OF A NOVEL 1,3-DIPOLAR REAGENT, ALKYLIDENETHIOCARBONYL YLIDE; SYNTHESIS AND [3+2] CYCLOADDITION REACTIONS

Yoshinori Tominaga, Satoshi Takada, and Shinya Kohra, Faculty of Pharmaceutical Sciences, Faculty of Liberal Arts, Nagasaki University, 1-14, Bunkyo-machi, Nagasaki, Japan

Ketene dithioacetal with fluoride ions in the presence of reactive dipolarophiles afforded 1,3-dipolar cycloadducts.

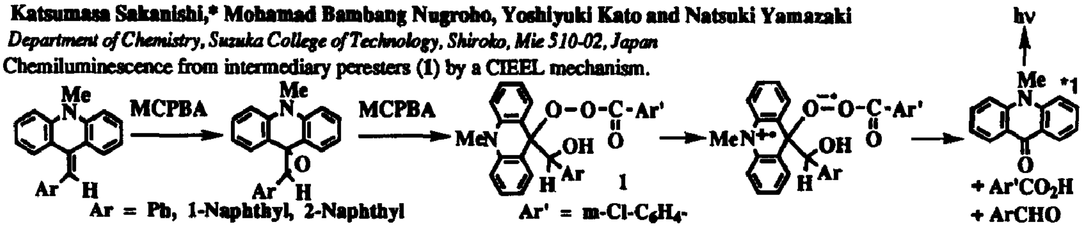


Tetrahedron Letters, **1994**, *35*, 3559

A Novel Chemiluminescence from the Reaction of 9-Arylmethylene-10-methyl-9,10-dihydroacridines and Peroxyacid

Katsumasa Sakanishi,* Mohamad Bambang Nugroho, Yoshiyuki Kato and Natsuki Yamazaki
Department of Chemistry, Suzuka College of Technology, Shiroko, Mie 510-02, Japan

Chemiluminescence from intermediary peresters (1) by a CIEEL mechanism.

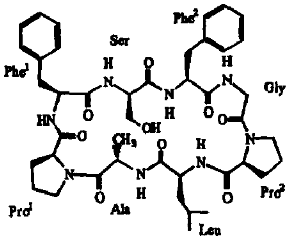


Tetrahedron Letters, **1994**, *35*, 3563

PSEUDOSTELLARIN G, A NEW TYROSINASE INHIBITORY CYCLIC OCTAPEPTIDE FROM *PSEUDOSTELLARIA HETEROPHYLLA*

Hiroshi Morita, Hideyuki Kobata, Koichi Takeya and Hideji Itokawa*

Department of Pharmacognosy, Tokyo College of Pharmacy, Horinouchi 1432-1, Hachioji, Tokyo 192-03, Japan



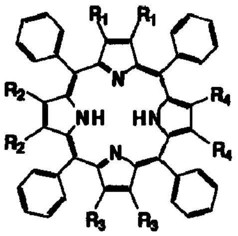
Pseudostellarin G

Tetrahedron Letters, **1994**, *35*, 3565

Synthesis and Nonplanar Macrocyclic Characters of Hexa-, Octa-, and Decaphenylporphyrins

Jun Takeda* and Mitsuo Sato
Biophysics Division, Faculty of Pharmaceutical Sciences, Teikyo University, Sagamiko, Kanagawa 199-01, Japan

Porphyrins bearing six, eight, and ten phenyl groups were synthesized and characterized by UV-visible and NMR spectroscopy.



HPP	$R_1 = Ph, R_2 = R_3 = R_4 = H$
trans-OPP	$R_1 = R_3 = Ph, R_2 = R_4 = H$
cis-OPP	$R_1 = R_2 = Ph, R_3 = R_4 = H$
DecPP	$R_1 = R_2 = R_3 = Ph, R_4 = H$

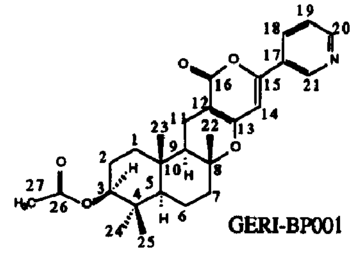
GERI-BP001, A New Inhibitor Of Acyl-CoA: Cholesterol Acyltransferase Produced By *Aspergillus fumigatus* F37

Tetrahedron Letters, **1994**, *35*, 3569

Tae-Sook Jeong, Sung-Uk Kim, Byoung-Mog Kwon, Kwang-Hee Son,
Young-Kook Kim, Myung-Un Choi† and Song-Hae Bok*

Bioproducts Research Group, Genetic Engineering Research Institute, KIST,
P.O. Box 115, Yoosung, Daejon 305-600, Korea
†Department of Chemistry, College of Natural Sciences, Seoul National
University, Seoul 151-742, Korea

GERI-BP001, a new inhibitor(IC$_{50}$ 50μM) of acyl-CoA: cholesterol acyltransferas (ACAT), was isolated from a culture broth of *Aspergillus fumigatus* F37 and the structure was elucidated on the basis of spectroscopic data.



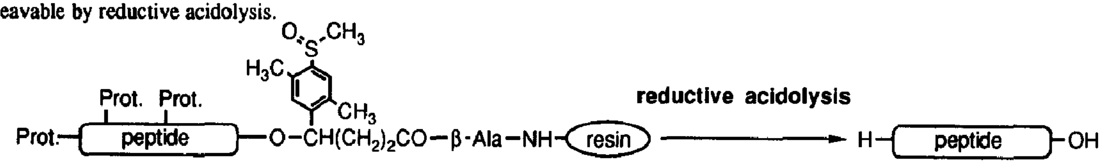
GERI-BP001

A NEW REDUCTIVE ACIDOLYSIS FINAL DEPROTECTION STRATEGY IN SOLID PHASE PEPTIDE SYNTHESIS. USE OF A NEW SAFETY-CATCH LINKER.

Tetrahedron Letters, **1994**, *35*, 3571

Yoshiaki Kiso,* Toshio Fukui, Shigeki Tanaka, Tooru Kimura and Kenichi Akaji,
Department of Medicinal Chemistry, Kyoto Pharmaceutical University, Yamashina-ku, Kyoto 607, Japan

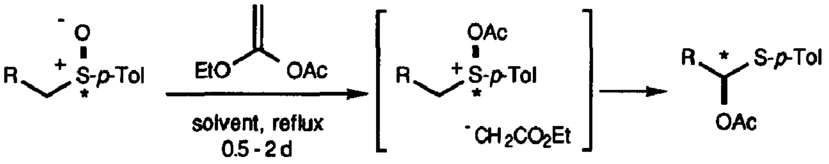
A new reductive acidolysis final deprotection strategy in solid phase peptide synthesis was developed using a new safety-catch linker cleavable by reductive acidolysis.



A NOVEL ASYMMETRIC PUMMERER REACTION INDUCED BY ETHOXY VINYL ESTER

Tetrahedron Letters, **1994**, *35*, 3575

Yasuyuki Kita,* Norio Shibata, Noriyuki Kawano, Seiji Fukui, and Chino Fujimori
Faculty of Pharmaceutical Sciences, Osaka University, 1-6 Yamada-oka, Suita, Osaka 565, Japan

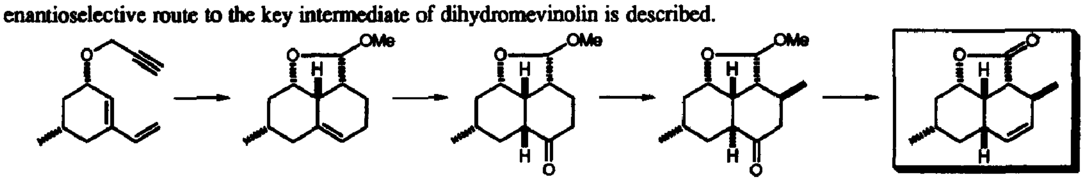


ACCESS TO AN OPTICALLY PURE KEY INTERMEDIATE OF DIHYDROMEVINOLIN.

Tetrahedron Letters, **1994**, *35*, 3577

Shigeru Nagashima, Teruhiko Taishi, and
Ken Kanematsu*, Institute of Synthetic Organic Chemistry, Faculty of Pharmaceutical Sciences,
Kyushu University 62, Higashi-ku, Fukuoka 812, Japan

An enantioselective route to the key intermediate of dihydromevinolin is described.

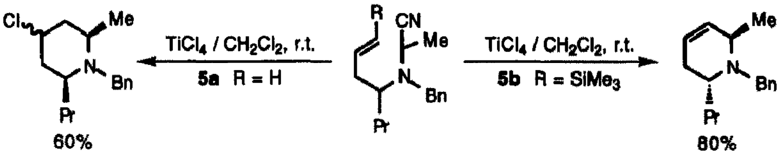


Stereoselective Synthesis of 2,6-Disubstituted Piperidine Alkaloids via TiCl$_4$ Induced Iminium Ion Cyclization of α-Cyanoamines

Tetrahedron Letters, **1994,** *35,* 3581

Teng-Kuei Yang*, Tsung-Fan Teng, Jyh-Hwa Lin, and Yen-Yuan Lay
Department of Chemistry, National Chung-Hsing University, Taichung, Taiwan 40227, R.O.C.

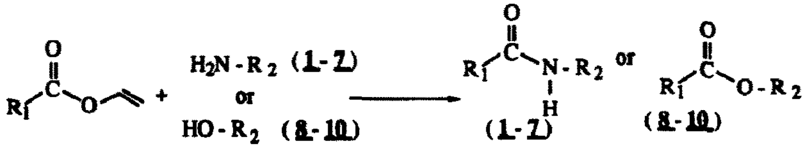
Highly stereoselective cyclization of α-cyanoamine produced either of cis and trans 2,6-disubstituted piperidine alkaloids through the tuning of vinyl substituents.



Vinyl Carboxylate, An Acylating Reagent for Selective Acylation of Amines and Diols.

Tetrahedron Letters, **1994,** *35,* 3583

S. T. Chen, S. Y. Chen, S. J. Chen, K. T. Wang, Institute of Biological Chemistry, Academia Sinica, Department of Chemistry, National Taiwan University.

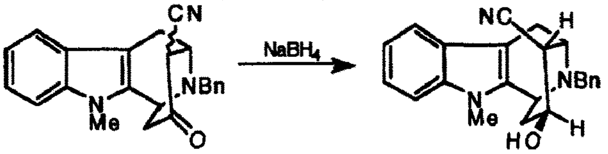


1-7 = Val-OBzl, Ser-OBzl, Phe-^{t}Bu, Phe-OH, Pro-NH$_2$, Pro-OH, Sarcosine,
8-10 = 2-phenyl-2-ethanediol, 1,3-butandiol, L-ascorbic acid.

STEREOSPECIFIC REDUCTION OF A β-KETO-NITRILE: FORMATION OF A SINGLE INDOLIC β-HYDROXY-NITRILE FROM A MIXTURE OF TAUTOMERS AND DIASTEREOISOMERS.

Tetrahedron Letters, **1994,** *35,* 3585

Patrick D. Bailey, Department of Chemistry, Heriot-Watt University, Riccarton, Edinburgh, EH14 4AS, U.K. Sean P. Hollinshead, Madeleine H. Moore, Keith M. Morgan, and John M. Vernon, Department of Chemistry, University of York, Heslington, York, YO1 5DD, U.K. David I. Smith, Department of Chemical Development, Sterling Winthrop Pharmaceuticals Research Division, Sterling Winthrop Research Centre, Alnwick, Northumberland, NE66 2JH, U.K.



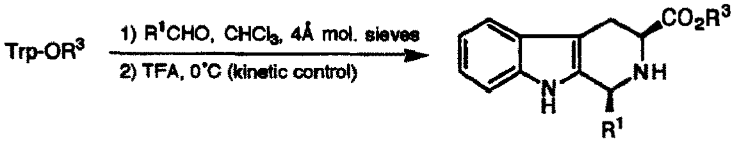
Borohydride reduction of a tautomeric mixture leads exclusively to one alcohol

---

ENHANCING THE YIELD AND DIASTEREOSELECTIVITY OF THE PICTET-SPENGLER REACTION: A HIGHLY EFFICIENT ROUTE TO *CIS*-1,3-DISUBSTITUTED TETRAHYDRO-β-CARBOLINES.

Tetrahedron Letters, **1994,** *35,* 3587

Patrick D. Bailey, Department of Chemistry, Heriot-Watt University, Riccarton, Edinburgh, EH14 4AS, U.K. Madeleine H. Moore, Keith M. Morgan, and John M. Vernon, Department of Chemistry, University of York, Heslington, York, YO1 5DD, U.K. David I. Smith, Department of Chemical Development, Sterling Winthrop Pharmaceuticals Research Division, Sterling Winthrop Research Centre, Alnwick, Northumberland, NE66 2JH, U.K.



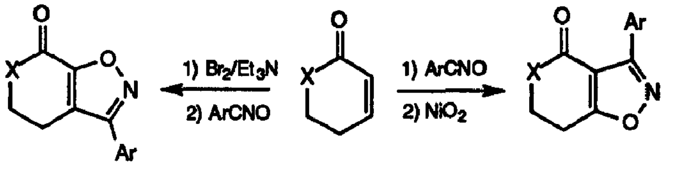
Yields >95% and choice of R^3 enables *cis*-diastereocontrol to be ≥ 3.5 : 1

Tetrahedron Letters, **1994**, *35*, 3589

REVERSAL OF REGIOCHEMISTRY IN THE SYNTHESIS OF ISOXAZOLES BY NITRILE OXIDE CYCLOADDITIONS.

Christopher J. Easton, C. Merrice Hughes and Edward R. T. Tiekink, Department of Chemistry, University of Adelaide, Adelaide, S.A. 5005, Australia
Carolyn E. Lubin, G. Paul Savage and Gregory W. Simpson,* CSIRO Division of Chemicals and Polymers, Private Bag 10, Rosebank MDC, Clayton, Vic. 3169, Australia

Isoxazolines, obtained from nitrile oxide cycloadditions to cyclohex-2-enones, reacted with nickel peroxide to give isoxazoles. In contrast, bromination followed by cycloaddition affords the regioisomeric isoxazoles.

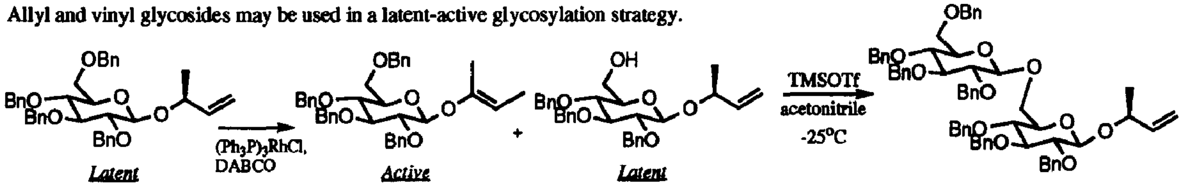


Tetrahedron Letters, **1994**, *35*, 3593

VINYL GLYCOSIDES IN OLIGOSACCHARIDE SYNTHESIS (PART 1): A NEW LATENT-ACTIVE GLYCOSYLATION STRATEGY.

***Geert-Jan Boons*, Stephen Isles**, School of Chemistry, The University of Birmingham, Edgbaston, Birmingham B15 2TT, UK.*

Allyl and vinyl glycosides may be used in a latent-active glycosylation strategy.

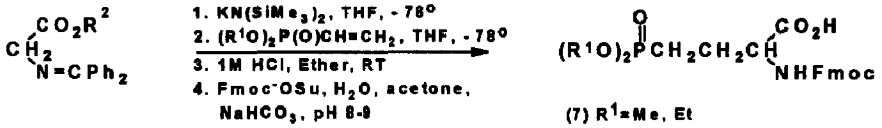


Tetrahedron Letters, **1994**, *35*, 3597

A CONVENIENT SYNTHESIS OF PHOSPHONATE ISOSTERES OF SERINE PHOSPHATES.

Robert Hamilton,[a] Richard E. Shute,[c] James Travers,[a] Brian Walker,[b] and Brian J. Walker, * [a] (a) School of Chemistry and (b) Division of Biochemistry, The Queen's University, Belfast BT9 5AG, and (c) ZENECA Pharmaceuticals, Mereside, Alderley Park, Macclesfield, Cheshire SK10 4TG

Serine phosphonate isosteres 4-(dialkylphosphono)-2-{*N*-(9-fluorenylmethoxycarbonyl)amino}butanoic acids (7), suitably protected for direct use in peptide synthesis, have been prepared from vinylphosphonate diesters in three steps and high overall yield.

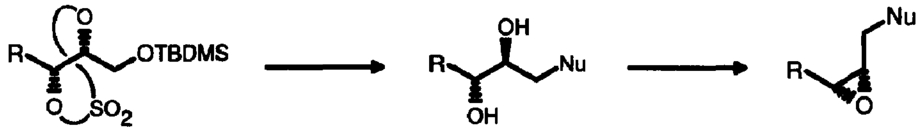


Tetrahedron Letters, **1994**, *35*, 3601

CIS-EPOXIDES VIA SHARPLESS' ASYMMETRIC DIHYDROXYLATION REACTION: SYNTHESIS OF (+)-DISPARLURE

Soo Y. Ko, Sandoz Institute for Medical Research, 5 Gower Place, London WC1E 6BN, U. K.

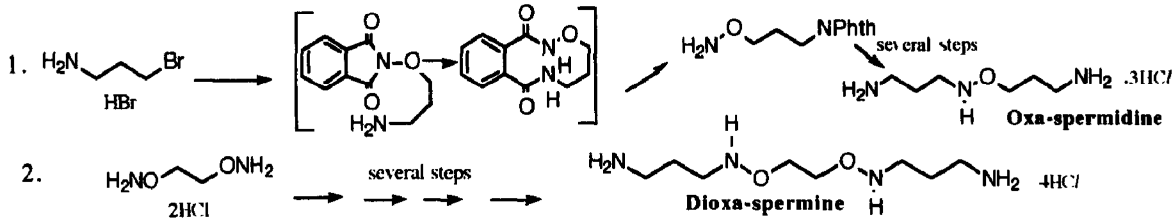
(+)-Disparlure was synthesized employing the AD and cyclic sulfate rearrangement-opening reactions as the key steps.



Synthesis of Novel Oxa-isosteres of Spermidine and Spermine

Tetrahedron Letters, **1994**, *35*, 3605

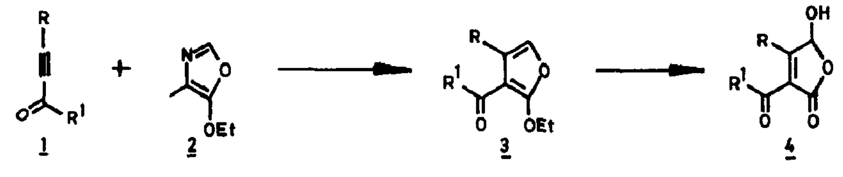
Paul Kong Thoo Lin*, Nuala M. Maguire and Daniel M. Brown+
The Robert Gordon University, School of Applied Sciences, St. Andrew st., Aberdeen AB1 1HG, UK
+MRC Laboratory of Molecular Biology, Hills Road, Cambridge CB2 2QH, UK



REGIOSELECTIVE SYNTHESIS OF HYDROXY BUTENOLIDES : A CONVENIENT SYNTHESIS OF A-FACTOR

Tetrahedron Letters, **1994**, *35*, 3609

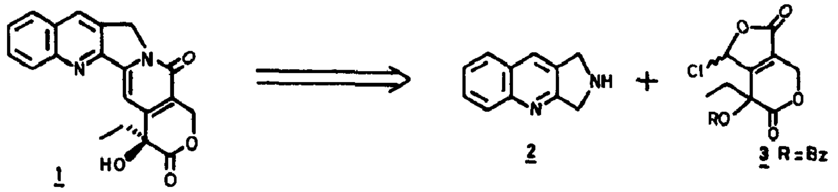
Yadav J S*, Muralikrishna Valluri and A V Rama Rao
Indian Institute of Chemical Technology, Hyderabad 500 007, India



REGIOSELECTIVE SYNTHESIS OF CAMPTOTHECIN

Tetrahedron Letters, **1994**, *35*, 3613

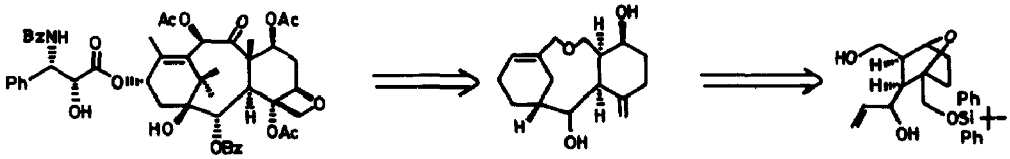
A V Rama Rao*, Yadav J S and Muralikrishna Valluri
Indian Institute of Chemical Technology, Hyderabad 500 007
India



FIRST AND STEREOCONTROLLED ENTRY TO C-7 HYDROXY FUNCTIONALITY OF TAXANES EMPLOYING BOORD REACTION

Tetrahedron Letters, **1994**, *35*, 3617

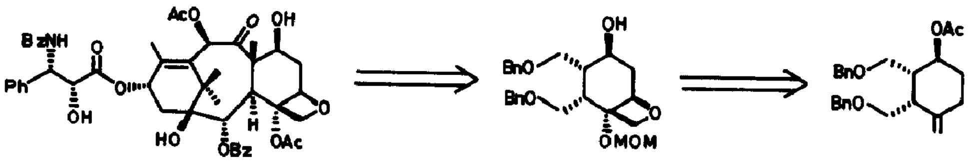
Yadav J S*, Ravishankar Renduchintala and Lakshman Samala
Indian Institute of Chemical Technology, Hyderabad 500007, India



A FACILE STEREOCONTROLLED SYNTHESIS OF TAXOL CD RINGS

Tetrahedron Letters, **1994**, *35*, 3621

Yadav J S*, Ravishankar Renduchintala and Lakshman Samala
Indian Institute of Chemical Technology, Hyderabad 500007, India



AN EXPEDITIOUS APPROACH TO THE SYNTHESIS OF CHIRAL BUTADIENYL ALCOHOLS

Tetrahedron Letters, **1994**, *35*, 3625

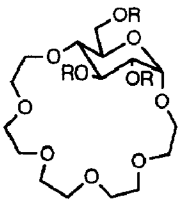
Yadav J S*, Srinivas D and Shekharam T
Indian Institute of Chemical Technology, Hyderabad 500007, India

Tetrahedron Letters, **1994**, *35*, 3629

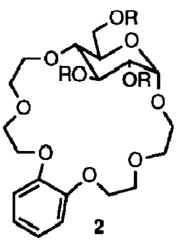
Synthesis of Novel Chiral Macrocycles: Crown Ethers Derived from D-Glucose

Neelakandha S. Mani*,[1] and Puthuparambil P. Kanakamma
Regional Research Laboratory (CSIR), Trivandrum 695019, India.

Two new macrocycles (1 and 2) incorporating a crown ether and a glucose unit have been synthesized efficiently in six steps from α-allyl glucopyranoside. Preliminary complexation studies with alkali metal and ammonium ions are described.



1

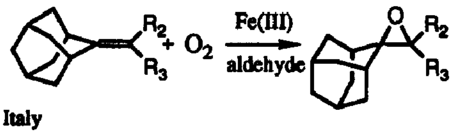


2

Aerobic Epoxidation of Hindered Olefins and Enol Ethers Catalyzed by a Polymerizable β-Ketoesterate Complex of Iron(III).

Tetrahedron Letters, **1994**, *35*, 3633

Luigi Lopez, Piero Mastrorilli, Giuseppe Mele, and Cosimo F.Nobile*
Centro CNR M.I.S.O., Istituto di Chimica del Politecnico di Bari and
Dipartimento di Chimica dell'Università di Bari, Trav. 200 Re David,4 70126 Bari Italy



$^1O_2$ and free peroxyacids seem to be discharged as active species in the epoxidation under Mukaiyama's conditions.