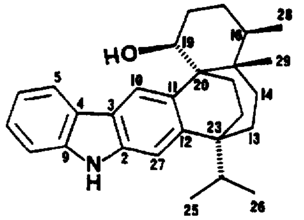
GRAPHICAL ABSTRACTS

Tetrahedron Lett. 30,5965(1989)

THE STRUCTURE OF TUBINGENSIN B: A CYTOTOXIC CARBAZOLE ALKALOID FROM THE SCLEROTIA OF ASPERGILLUS TUBINGENSIS

M.R. TePaske and J.B. Gloer*, Department of Chemistry, University of Iowa, Iowa City, Iowa, 52242, and D.T. Wicklow and P.F. Dowd, ARS, Northern Regional Research Center, USDA, Peoria, IL, 61604

Tubingensin B (4), a cytotoxic indole diterpenoid metabolite, was isolated from the sclerotia of the fungus Aspergillus tubingensis, and its structure was assigned through NMR studies.



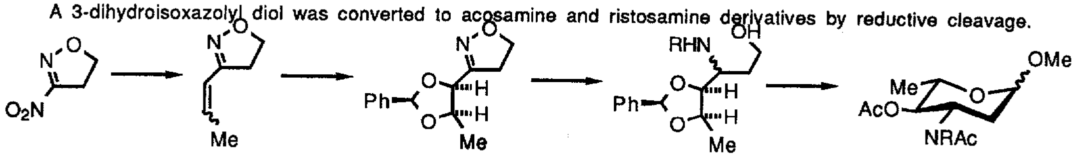
4

Tetrahedron Lett. 30,5969(1989)

A DIHYDROISOXAZOLE-BASED ROUTE TO 2,3,6-TRIDEOXY-3-AMINOHEXOSE DERIVATIVES

P. A. Wade*, J. A. Rao, J. F. Bereznak, and C.-K. Yuan, Dept. of Chemistry, Drexel University, Philadelphia, PA 19104, U.S.A.

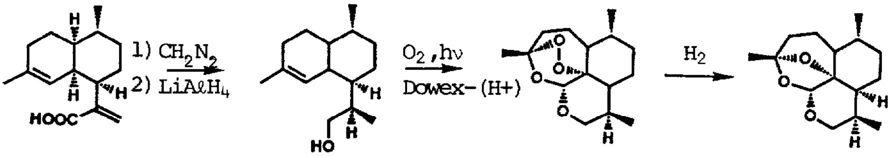
A 3-dihydroisoxazolyl diol was converted to acosamine and ristosamine derivatives by reductive cleavage.



Tetrahedron Lett. 30,5973(1989)

A SHORT AND STEREOSPECIFIC SYNTHESIS OF (+)-DEOXOARTEMISININ AND (-)-DEOXODESOXYARTEMISININ

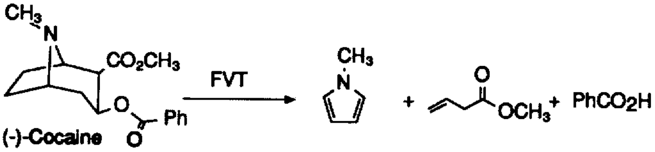
Mankil Jung*, Xun Li, Daniel A. Bustos, Hala N. ElSohly, and James D. McChesney
School of Pharmacy, University of Mississippi, University, MS 38677



Tetrahedron Lett. 30,5977(1989)

The Flash Vacuum Thermolysis of (–)-Cocaine

Nicholas J. Sisti, Joanna S. Fowler and Frank W. Fowler
Departments of Chemistry, State University of New York at Stony Brook, Stony Brook, New York 11790 and Brookhaven National Laboratory, Upton, New York 11973

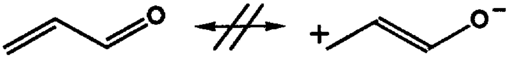


Tetrahedron Lett. 30,5981(1989)

CHARGE DENSITY DISTRIBUTION IN ACROLEIN, BUTADIENE AND VINYLAMINE. UNIMPORTANCE OF DIPOLAR RESONANCE STRUCTURES IN DETERMINING THE GROUND STATE CHARGE DISTRIBUTION.

Kenneth B. Wiberg* and Robert E. Rosenberg
Department of Chemistry, Yale University, New Haven, Connecticut 06511

A study of the charge density distribution in acrolein, butadiene and vinylamine shows that the dipolar resonance structures have little importance in determining the ground state charge distributions.

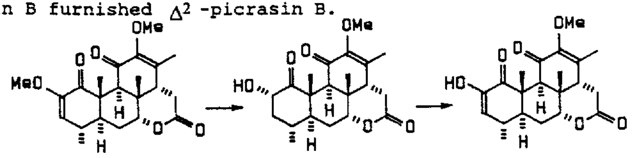


Tetrahedron Lett. 30,5985(1989)

A PARTIAL SYNTHESIS OF PICRASIN B AND Δ^2-PICRASIN B

Kenji Kawada, Moonsun Kim, and David S. Watt,
Department of Chemistry, Division of Medicinal Chemistry,
University of Kentucky, Lexington, KY. 40506

The reductive demethylation of the O-methyldiosphenol group in the A ring of quassin with iodotrimethylsilane provided picrasin B, and Swern oxidation of picrasin B furnished Δ^2-picrasin B.

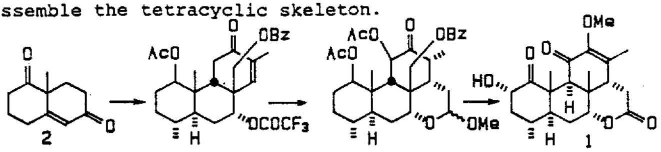


Tetrahedron Lett. 30,5989(1989)

AN ENANTIOSELECTIVE TOTAL SYNTHESIS OF (+)-PICRASIN B

Kenji Kawada, Moonsun Kim, and David S. Watt,
Department of Chemistry, Division of Medicinal Chemistry,
University of Kentucky, Lexington, KY. 40506

An enantioselective total synthesis of (+)-picrasin B (1) was completed from the R-(-)-enantiomer of the Wieland-Miescher ketone (2) using an A-AB-ABC-ABCD sequence to assemble the tetracyclic skeleton.

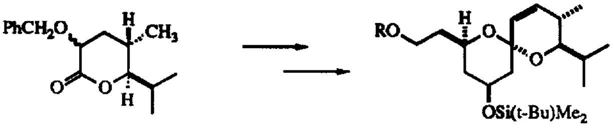


Tetrahedron Lett. 30,5993(1989)

Synthesis of the Spiroketal Fragment of Avermectin B_{1b}

Michael T. Crimmins* and Rosemary O'Mahony
Department of Chemistry; University of North Carolina; Chapel Hill, North Carolina 27599-3290

A new synthesis of the spiroketal fragment of the potent antiparasitic agent, avermectin B_{1b}, utilizing an improved procedure for the preparation of unsaturated spiroketals from lactones is described.

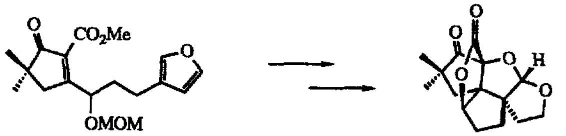


Tetrahedron Lett. 30,5997(1989)

Intramolecular Enone-Furan Photocycloadditions: Studies Toward The Synthesis of Ginkgolides A and B

Michael T. Crimmins* and James B. Thomas
Department of Chemistry; University of North Carolina; Chapel Hill, North Carolina 27599-3290

A furan-enone photocycloaddition is the key step in the preparation of a model for ginkgolides A and B.

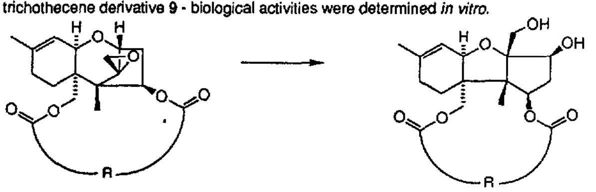


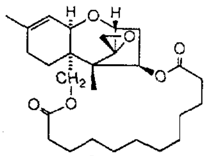
Tetrahedron Lett. 30,6001(1989)

APOTRICHOTHECENE REARRANGEMENT IN MACROCYCLIC TRICHOTHECENE DERIVATIVES

N. Jeker and Ch. Tamm *, Institute of Organic Chemistry, University of Basel, St. Johanns-Ring 19, CH-4056 Basel, Switzerland

From verrucarin A, J and roridin A the corresponding macrocyclic apotrichothecenes were prepared, as well as the macrocyclic trichothecene derivative 9 - biological activities were determined *in vitro*.





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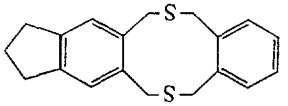
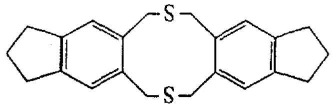
Tetrahedron Lett. 30,6005(1989)

CYCLOPHANES, 33

2,11-DITHIA-[3.3](5,6)INDANO-ORTHOCYCLOPHANE AND 2,11-DITHIA-[3.3](5,6)INDANOCYCLOPHANE SYNTHESIS, DNMR AND X-RAY STRUCTURE ANALYSIS

Graham Bodwell, Ludger Ernst, Henning Hopf* and Peter G. Jones
Institut für Organische Chemie
Universität Braunschweig, Hagenring 30
D-3300 Braunschweig, Fed.Rep. of Germany





Synthesis, DNMR and X-ray structural analysis of the title compounds

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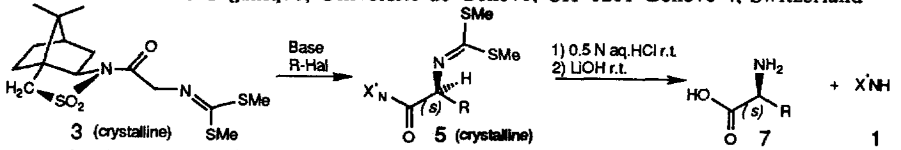
Tetrahedron Lett. 30,6009(1989)

ASYMMETRIC ALKYLATIONS OF A SULTAM-DERIVED GLYCINATE EQUIVALENT: PRACTICAL PREPARATION OF ENANTIOMERICALLY PURE α-AMINO ACIDS

Wolfgang Oppolzer*, Robert Moretti and Silvia Thomi
Département de Chimie Organique, Université de Genève, CH-1211 Genève 4, Switzerland



Deprotonation/alkylation/mild hydrolysis 3 → 5 → 7 gave α-amino acids 7 (100% e.e) in high overall yield.

Tetrahedron Lett. 30, 6011 (1989)

ENANTIOSELECTIVE SYNTHESIS OF OPTICALLY PURE NATURAL S(+) OR UNNATURAL R(-) DABA.

A. Solladié-Cavallo and M.C. Simon; E.H.I.C.S., 1 rue B. Pascal, 67008, Strasbourg.

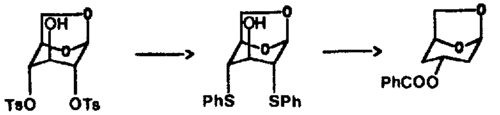
Optically pure S(+) DABA (100% A.I. in the key step) is obtained in more than 80% yield. A model is proposed to explain the dependence of asymmetric induction on the nature of the counter ion (Li^+, Mg^{++}, Bu_4N^+).

Tetrahedron Lett. 30, 6015 (1989)

MEVINIC ACIDS AND ANALOGS : A NOVEL EFFICIENT ROUTE TO CHIRAL SYNTHONS FROM 1,6-ANHYDRO-D-GLUCOSE

C. DAVID, J.P. GESSON and J.C. JACQUESY
Laboratoire de Chimie XII, Unité associée au CNRS
40, Avenue du Recteur Pineau
86022 POITIERS Cedex (France)

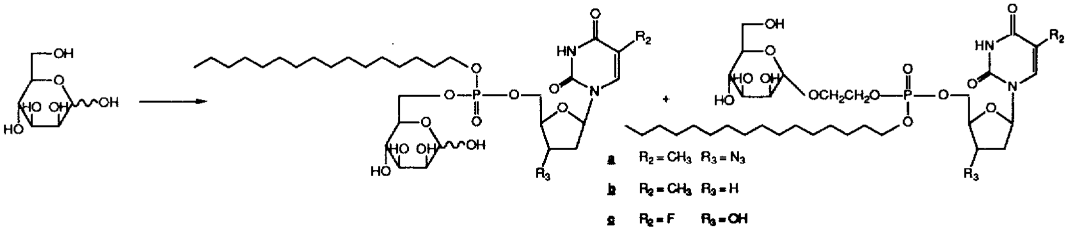
2,4-dideoxygenation of 1,6-anhydro-D-Glucose is carried out in 3 steps by displacement of the corresponding ditosylate by PhSNa followed by Raney Ni hydrogenolysis.



Tetrahedron Lett. 30, 6019 (1989)

6- and 1- substituted mannosyl phosphotriesters as lipophilic macrophage-targeted carriers of antiviral nucleosides

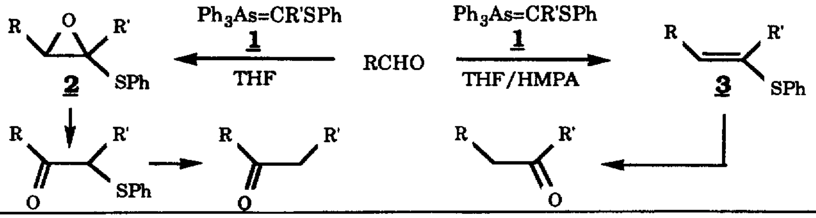
C. GOUYETTE, J.M. NEUMANN, R. FAUVE and T. HUYNH-DINH



Tetrahedron Lett. 30, 6023 (1989)

HOMOLOGATION OF ALDEHYDES USING (PHENYLTHIOMETHYLENE) TRIPHENYLARSORANE.

B. BOUBIA[a], C. MIOSKOWSKI[a*], S. MANNA[b] and J.R. FALCK[b]; [a]Université Louis Pasteur, Laboratoire associé au CNRS, Faculté de Pharmacie, 74 route du Rhin BP 24, 67401 Illkirch FRANCE [b]Departments of molecular Genetics and Pharmacology, University of Texas Southwestern Medical Center, Dallas, Texas 75235 U.S.A.

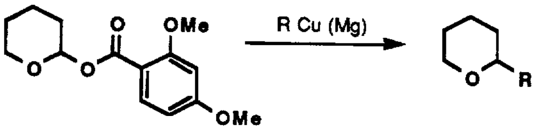


Tetrahedron Lett. 30,6027(1989)

Direct Anomeric Substitution of Pyranyl Esters Using Organocopper Reagents

V. Bolitt[1], C. Mioskowski*[1],J.R. Falck*[2]
[1]Université Louis Pasteur, Faculté de Pharmacie, 74 route du Rhin, F-67401 STRASBOURG
[2]Departments of Molecular Genetics and Pharmacology,
University of Texas Health Center, DALLAS, TX 75235, USA.

Various 2-substituted tetrahydropyrans were obtained with good yields by direct anomeric substitution of tetrahydropyranyl 2,4-dimethoxybenzoate, using Grignard derived organocopper reagents.

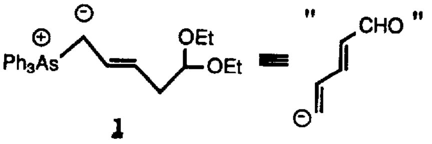


Tetrahedron Lett. 30,6031(1989)

(5,5-DIETHOXY-2-(E)-PENTENYL) TRIPHENYLARSONIUM YLIDE : A NEW SYNTHETIC EQUIVALENT OF δ-FORMYL BUTADIENYLANION

P. CHABERT, 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

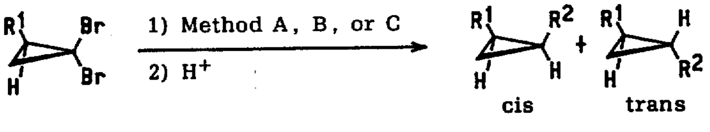
The title arsonium ylide permits a five carbon homologation of aldehydes to the corresponding 6-hydroxy-2,4-(E)-dienals. This new reagent can be considered as a new δ-formyl butadienyl anion.



Tetrahedron Lett. 30,6035(1989)

GENERATION AND ALKYLATION REACTION OF LITHIUM 1-HALOCYCLOPROPYLZINCATE

Toshiro Harada, Kazuhiro Hattori, Takeshi Katsuhira, and Akira Oku,* Department of Chemistry, Kyoto Institute of Technology, Matsugasaki, Sakyo-ku, Kyoto 606, Japan

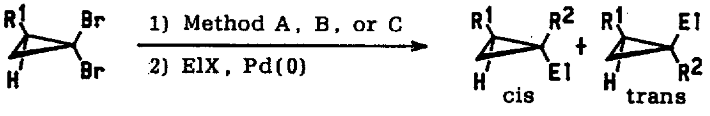


Method A; $(R^2)_3ZnLi$.
Method B; 1) n-BuLi, 2) $ZnCl_2$, 3) R^2Li,
Method C; 1) n-BuLi, 2) freon-113, 2) $(R^2)_3ZnLi$.

Tetrahedron Lett. 30,6039(1989)

STEREOSELECTIVE SYNTHESIS OF gem-DISUBSTITUTED CYCLOPROPANES FROM gem-DIBROMOCYCLOPROPANES

Toshiro Harada, Kazuhiro Hattori, Takeshi Katsuhira, and Akira Oku,* Department of Chemistry, Kyoto Institute of Technology, Matsugasaki, Sakyo-ku, Kyoto 606, Japan



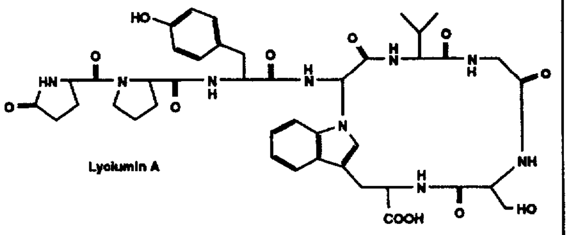
Method A; $(R^2)_3ZnLi$.
Method B; 1) n-BuLi, 2) $ZnCl_2$, 3) R^2Li,
Method C; 1) n-BuLi, 2) freon-113, 2) $(R^2)_3ZnLi$.

Tetrahedron Lett. 30, 6041 (1989)

STRUCTURES OF ANTI-ACE AND -RENIN PEPTIDES FROM LYCII RADICIS CORTEX

S.Yahara,[a] C.Shigeyama,[a] T.Nohara,[a] H.Okuda,[b]
K.Wakamatsu,[c] and T.Yasuhara[c]

Fac. of Pharm. Sci., Kumamoto Univ.,[a]
Kumamoto 862, Sch. of Med., Ehime Univ.,[b]
Ehime 791-02, and Tsukuba Res. Lab.,
Takeda Chem. Ind., Ltd.,[c] Ibaraki-ken 300-42,
Japan



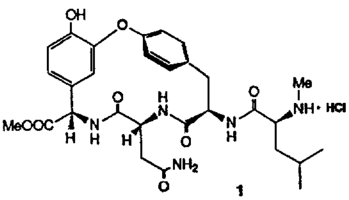
Lyciumin A

Tetrahedron Lett. 30, 6043 (1989)

SYNTHETIC STUDY ON VANCOMYCIN: SYNTHESIS OF MACROCYCLIC TETRAPEPTIDE AS A PLAUSIBLE ACTIVE CENTER

Y. Suzuki, S. Nishiyama, and S. Yamamura
Department of Chemistry, Faculty of Science and Technology, Keio University, Hiyoshi, Yokohama, JAPAN

Two oligopeptides (1, 2) have been synthesized in connection with vancomycin.



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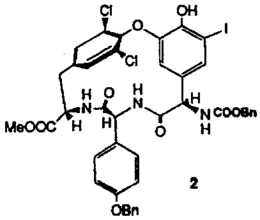

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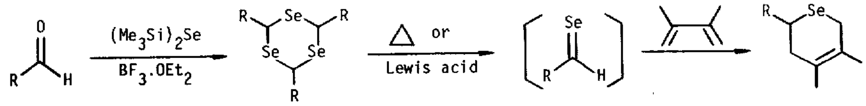
Tetrahedron Lett. 30, 6047 (1989)

NOVEL SYNTHESIS OF 1,3,5-TRISELENANES FROM ALDEHYDES, AND NOVEL GENERATION OF SELENOALDEHYDES BY FRAGMENTATION OF 1,3,5-TRISELENANES

Yuji Takikawa,* Akira Uwano, Hiroyuki Watanabe, Masaki Asanuma, and Kazuaki Shimada
Department of Applied Chemistry, Faculty of Engineering, Iwate University, Morioka 020, Japan

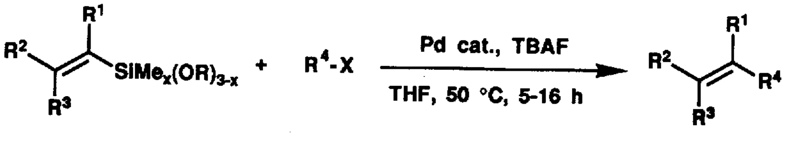
Reaction of aldehydes with (Me$_3$Si)$_2$Se in the presence of Lewis acid afforded 1,3,5-triselenanes via selenoaldehydes. Novel and convenient generation of selenoaldehydes was also achieved by thermally- or Lewis acid-induced fragmentation of 1,3,5-triselenanes.



Tetrahedron Lett. 30, 6051 (1989)

PALLADIUM-CATALYZED CROSS-COUPLING REACTION OF ALKENYLALKOXYSILANES WITH ARYL AND ALKENYL HALIDES IN THE PRESENCE OF A FLUORIDE ION

Kohei Tamao,* Kenji Kobayashi, and Yoshihiko Ito*
Department of Synthetic Chemistry, Faculty of Engineering, Kyoto University, Kyoto 606, Japan

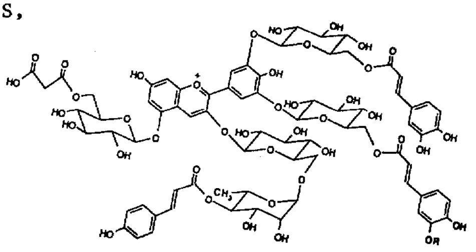


Tetrahedron Lett. 30, 6055 (1989)

STRUCTURE OF LOBELININ A AND B, NOVEL ANTHOCYANINS ACYLATED WITH THREE AND FOUR DIFFERENT ORGANIC ACIDS, RESPECTIVELY

Tadao Kondo*, Junko Yamashiki, Kiyoko Kawahori and Toshio Goto*
Chemical Instrument Center and Laboratory of Organic Chemistry, Faculty of Agriculture, Nagoya University, Chikusa, Nagoya 464, Japan

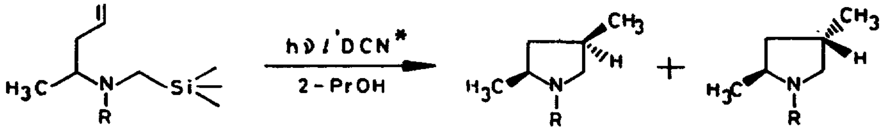
Lobelinin A (R = H) and lobelinin B (R = Me) were isolated from <u>Lobelia</u> <u>erinus</u> flower.



Tetrahedron Lett. 30, 6059 (1989)

PHOTOINDUCED SET GENERATION OF α-AMINE RADICALS : A PRACTICAL METHOD FOR THE SYNTHESIS OF PYRROLIDINES AND PIPERIDINES

G. Pandey, G. Kumaraswamy and U.T. Bhalerao
Indian Institute of Chemical Technology, Hyderabad 500 007, India.

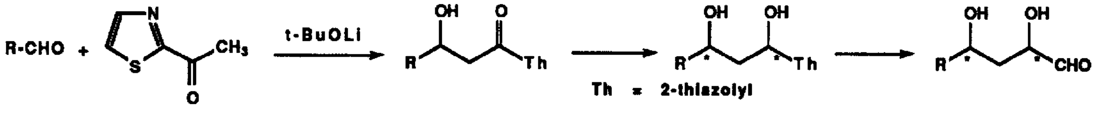


Tetrahedron Lett. 30, 6063 (1989)

2-ACETYLTHIAZOLE AS A THREE-CARBON HOMOLOGATING REAGENT OF ALDEHYDES. APPLICATION TOWARD THE SYNTHESIS OF AMINO HEXOSES FROM L-SERINAL.

A. Dondoni,* G. Fantin, M. Fogagnolo
Dipartimento di Chimica, Laboratorio di Chimica Organica, Università, Ferrara, Italy

2-Acetylthiazole acts as α-hydroxypropanal β-anion synthon equivalent for the construction of *syn*- and *anti*-α,γ-dihydroxybutanal units.

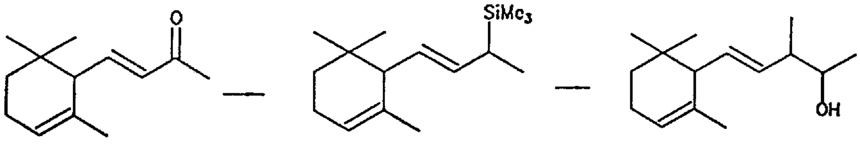


Tetrahedron Lett. 30, 6067 (1989)

ALLYLSILANES DERIVED FROM α- AND β-IONONE.

SYNTHESIS AND UNUSUAL REACTIVITY WITH ELECTROPHILES

Elisabetta Azzari, Cristina Faggi, Nedo Gelsomini and Maurizio Taddei*
Dipartimento di Chimica Organica "Ugo Schiff", Università di Firenze, Via G.Capponi 9 I-50121 Firenze Italy

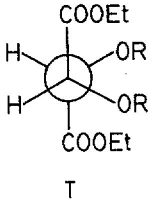


Tetrahedron Lett. 30, 6071 (1989)

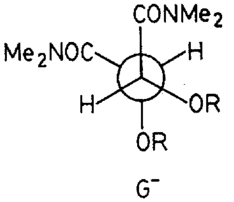
CONFORMATIONAL DISPARITY OF (R,R)-TARTARIC ACID ESTERS AND AMIDES

J. Gawronski, K. Gawronska and U. Rychlewska
Faculty of Chemistry, A. Mickiewicz University, 60780 Poznań, Poland

The exciton chirality method reveals different conformations of O,O-dibenzoyl (R=Bz) derivatives of (R,R)-tartaric esters (T) and amides (G^-). The gauche (G^-) conformation is also found in the solid state for the amides (R=H or Bz) by X-ray analysis.



T

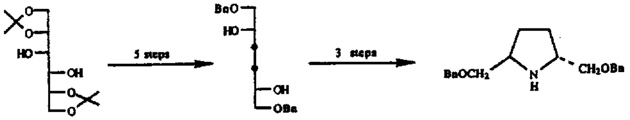


G^-

Tetrahedron Lett. 30, 6075 (1989)

ASYMMETRIC SYNTHESIS OF TRANS-(2R,5R)-BIS(BENZYLOXYMETHYL)PYRROLIDINE

M. Marzi[a] and D. Misiti[b]
a) Lab. Ricerca Chimica, Sigma Tau S.p.A., Via Pontina km 30,400, 00400 Pomezia (Italy)
b) Dip. Studi di Chim. e Tecnol. Sostanze Biologicamente Attive, Università "La Sapienza", P.le A. Moro 5, 00185 Roma (Italy)

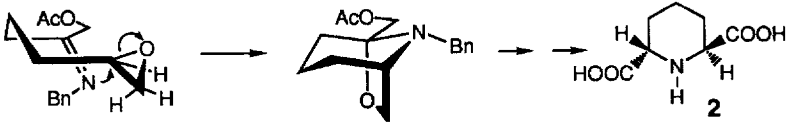


Tetrahedron Lett. 30, 6077 (1989)

THE IMINE-EPOXIDE REARRANGEMENT IN THE FORMATION OF TRANS-2,6-DISUBSTITUTED PIPERIDINES. A STEREOSELECTIVE SYNTHESIS OF (±)-TENERAIC ACID.

Harry H. Wasserman*, Karen Rodriques and Roman Kucharczyk
Department of Chemistry, Yale University, New Haven, CT 06511 USA

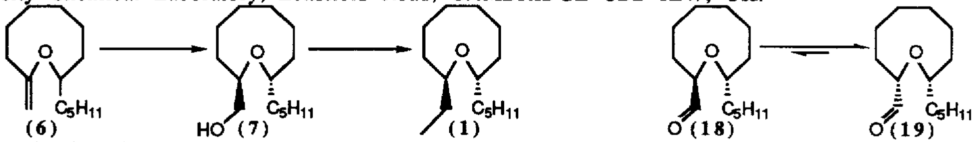
Teneraic acid **2** has been synthesized using the imine-epoxide rearrangement.



Tetrahedron Lett. 30, 6081 (1989)

SYNTHETIC METHODOLOGY FOR THE PREPARATION OF *TRANS*- AND *CIS*-2,9-DISUBSTITUTED OXONANES.

Robert W. Carling, Neil R. Curtis and Andrew B. Holmes*
University Chemical Laboratory, Lensfield Road, CAMBRIDGE CB2 1EW, UK.

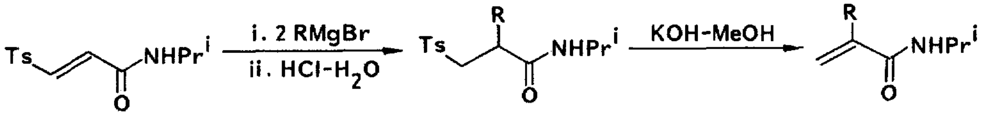


Trans-selective hydroboration of enol ether **(6)** gave oxonane **(7)**, which was converted into **(1)**, the carbon skeleton of obtusenyne. Epimerisation of **(18)** gave access to *cis*-oxonane **(19)**.

Tetrahedron Lett. 30, 6085 (1989)

(E)-N-ISOPROPYL-3-TOSYLACRYLAMIDE: A NEW α-ACYLVINYL CATION EQUIVALENT IN THE SYNTHESIS OF α-SUBSTITUTED ACRYLAMIDES

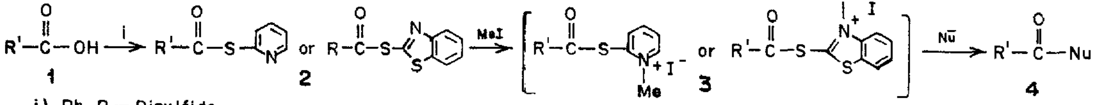
Carmen Nájera,* Balbino Mancheño, and Miguel Yus
División de Química Orgánica, Facultad de Ciencias, Universidad de Alicante, Alicante, Spain



Tetrahedron Lett. 30, 6089 (1989)

A New Mild Method for the Synthesis of Esters and Benzenethiol Esters by Activation of Pyridine-2-thiol or Benzothiazol-2-thiol Esters by Methyl Iodide

D.Ravi and Hari Babu Mereyala*
National Chemical Laboratory, Pune 411 008, India



i) Ph$_3$P — Disulfide

Nu = ROH or PhSH

Tetrahedron Lett. 30, 6091 (1989)

NUCLEOPHILICITY vs. BASICITY OF THE HYDROXIDE ION UNDER EXTRACTIVE PHASE TRANSFER CATALYSIS CONDITIONS.

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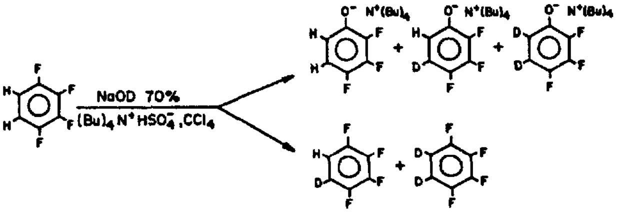
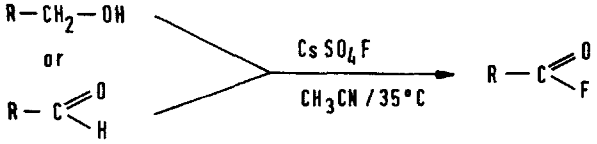


Tetrahedron Lett. 30, 6095 (1989)

MILD CONVERSION OF PRIMARY ALCOHOLS AND ALDEHYDES TO ACID FLUORIDES WITH CAESIUM FLUOROXYSULPHATE

Stojan Stavber, Zdenka Planinšek and Marko Zupan, Laboratory of Organic and Bioorganic Chemistry, "Jožef Stefan" Institute and Department of Chemistry, University of Ljubljana, 61000 Ljubljana, Yugoslavia.



R : C_nH_{2n+1} n = 5,7,9
Ph ; C_2H_4– Ph ; C_6H_4– X
1- or 2-naphthyl ;
9-phenanthryl