GRAPHICAL ABSTRACTS

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NEUROTROPHIC SESQUITERPENE-NEOLIGNANS FROM *MAGNOLIA OBOVATA*: STRUCTURE AND NEUROTROPHIC ACTIVITY

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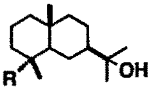
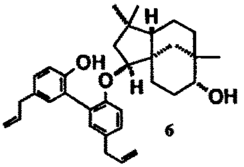
Structures of novel sesquiterpene-neolignan **1**-**7** are described. Compounds **1**, **6**, and **7** accelerated neurite sprouting and increased ChAT activity.



1; R= 1-*O*-Obovatol **4**; R=4-*O*-Honokiol
2; R= 2-*O*-Obovatol **5**; R=2'-*O*-Honokiol
3; R=*O*-Magnolol



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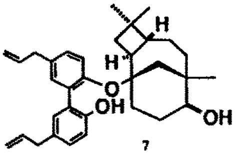

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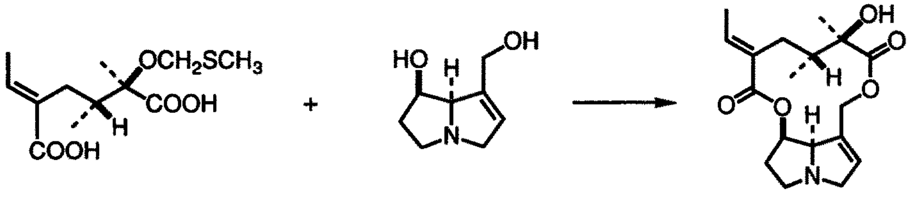
TOTAL SYNTHESIS OF OPTICALLY ACTIVE INTEGERRIMINE, A TWELVE-MEMBERED DILACTONIC PYRROLIZIDINE ALKALOID OF RETRONECINE TYPE

Haruki Niwa,* Yosuyoshi Miyachi, Osamu Okamoto, Youichi Uosaki, Akio Kuroda, Hiroyuki Ishiwata, and Kiyoyuki Yamada*
Department of Chemistry, Faculty of Science, Nagoya University, Chikusa, Nagoya 464, Japan



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ISOLATION OF AN ISOMER OF FK 506 FROM FERMENTATION OF STREPTOMYCES TSUKUBAENSIS AND ITS CHEMICAL SYNTHESIS FROM FK-506

Maximilian A.Grassberger, Theodor Fehr, Amyrylla Horvath and Gerhard Schulz

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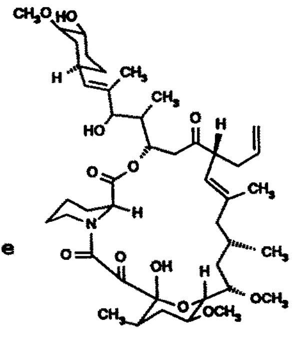
The FK-506 isomer **2a** was isolated as minor metabolite from S.tsukubaensis 9993 and synthesized from FK-506



2a

Tetrahedron, **1992**, *48*, 431

ASYMMETRIC SYNTHESIS OF PIPECOLIC ACID DERIVATIVES

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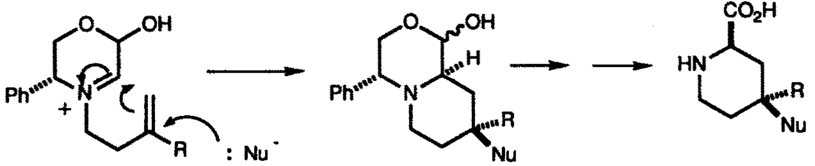
Laboratoire de Chimie Organique (URA CNRS 408), Université P. et M. Curie, 4 place Jussieu, 75005 Paris, France.



Homochiral pipecolic acid derivatives are synthesized via a ene-iminium cyclization.

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ACCESS TO UNSATURATED CHIRAL EPOXIDES I : BISALLYLIC CHIRAL EPOXIDES. APPLICATION TO THE SYNTHESIS OF LEPIDOPTERAN PHEROMONES

J. Soulié*, Ch. Ta and J.Y. Lallemand
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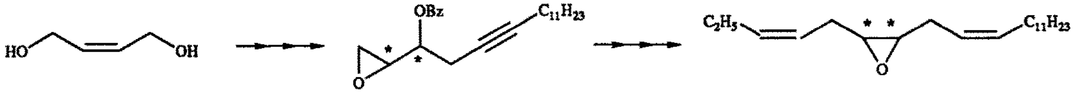
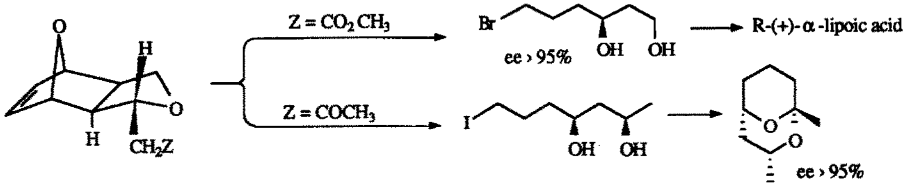
91128 Palaiseau, France.



Tetrahedron, **1992**, *48*, 453

Stereocontrolled Reaction Induced by a Thermolabile Group. Synthesis of Optically Active 1,3-Diols.

R. Bloch*, M. Bortolussi, C. Girard, M. Seck
U.R.A. 478, Institut de Chimie Moléculaire d'Orsay, Bât. 420, Université de Paris-Sud, 91405 ORSAY (FRANCE)



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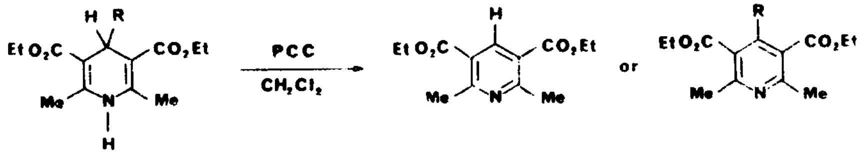
A Novel Application of the Oxidizing Properties of Pyridinium Chlorochromate: Aromatization of Hantzsch 1,4-Dihydropyridines

Jean-Jacques Vanden Eynde,* Annie Mayence, and André Maquestiau; University of Mons-Hainaut, Organic chemistry Laboratory, B-7000 Mons (Belgium)



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ANIONIC SPIROCYCLIZATION OF 3-NITRO-4-(2-HYDROXYPHENOXY)-2H-1-BENZOPYRAN-2-ONE: FORMATION OF STABILIZED MEISENHEIMER-TYPE SALTS

V.N.Drozd[a,*], V.N.Knyazev[a], N.L.Nam[a], D.S.Yufit[b], Yu.T.Struchkov[b], I.V.Stankevich[b], A.L.Chistyakov[b], V.P.Lezina[c], T.Ya.Mozhaeva[c], V.L.Saveljev[c].
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127550 Moscow. [b]Nesmeyanov Institute
of Organoelement Compounds, 117813 Moscow.
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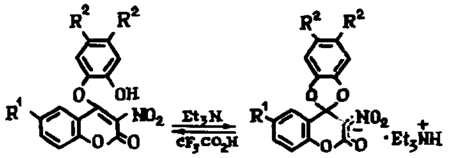
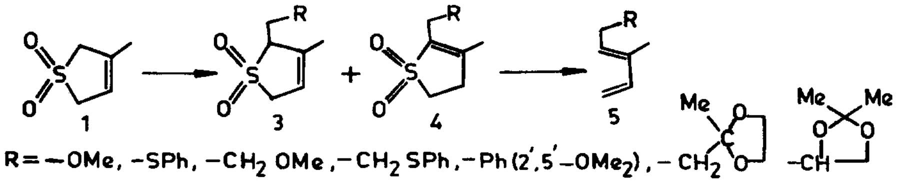
(USSR).



Tetrahedron, **1992**, *48*, 481

STUDIES IN ALKYLATION OF 3-METHYL-3-SULFOLENE & THERMOLYSIS OF RESULTING 2-ALKYL-SULFOLENES: CONVENIENT SYNTHESIS OF 1,2-DISUBSTITUTED-1,3-DIENES

Shailesh R. Desai, Vinayak K. Gore, T. Mayelvaganan, R. Padmakumar and Sujata V. Bhat*,
Department of Chemistry
Indian Institute of Technology, Powai, Bombay-400 076, India.



Tetrahedron, **1992**, *48*, 491

STRUCTURE CHARACTERIZATION BY TWO-DIMENSIONAL NMR SPECTROSCOPYOF TWO MARINE TRITERPENE OLIGOGLYCOSIDES FROM A PACIFIC SPONGE OF THE GENUS *ERYLUS*

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Dipartimento di Chimica delle Sostanze Naturali, Università di Napoli,
via D. Montesano 49, 80131 Napoli, Italy
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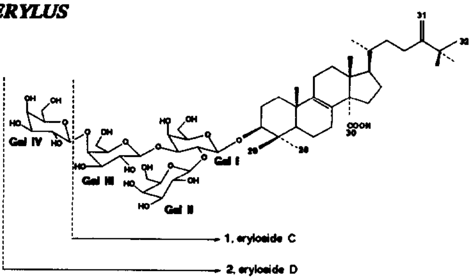
ORSTOM, Centre de Nouméa, B. P. A5, Nouméa, New Caledonia.

The structures of eryloside C (1) and D (2) are characterized by: {^{1}H,^{1}H}-COSY, 2D-homonuclear Hartmann-Hahn (HOHAHA) and ^{1}H-detected {^{1}H, ^{13}C} one bond (HMQC) and multiple bond (HMBC) shift correlation NMR experiments.



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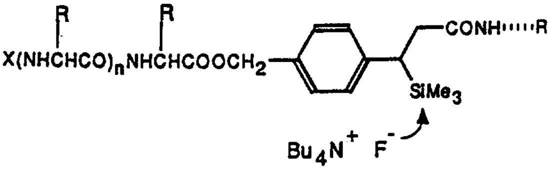
SOLID PHASE PEPTIDE SYNTHESIS: FLUORIDE ION RELEASE OF PROTECTED PEPTIDE FRAGMENTS

Robert Ramage, Christine A. Barron, Stanislaw Bielecki,
Robert Holden and David W. Thomas

Department of Chemistry, University of Edinburgh,
West Mains Road, Edinburgh EH9 3JJ

A linker unit, designed to be cleaved by fluoride ion, allows the release of t-butyl-derived protected peptide fragments after solid phase synthesis



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THERMAL ELECTROCYCLIC RING-OPENING OF CYCLOBUTENES: STEREOSELECTIVE ROUTES TO FUNCTIONALISED CONJUGATED (*Z,E*)- AND (*E,E*)-2,4-DIENALS

Falmai Binns, Roy Hayes, Stephen Ingham, Suthiweth T. Saengchantara,
Ralph W. Turner, and Timothy W. Wallace*
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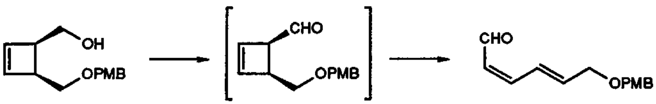
and ICI Pharmaceuticals, Mereside, Alderley Park, Macclesfield, Cheshire SK10 4TG, U.K.

Thermal electrocyclic ring-opening of the cyclobutenecarbaldehyde **12**, generated at –78 °C by oxidation of the alcohol **10**, proceeds at sub-ambient temperature to give only the (2*Z*,4*E*)-hexadienal **13**. Ring-opening is fast and stereoselective since the conrotatory preferences of the formyl and alkoxyalkyl groups are complementary.



10 **12** **13**

(PMB = 4-methoxybenzyl)

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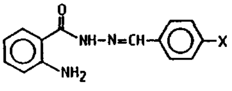
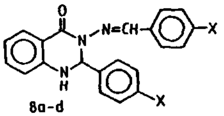
Formation of 1,2-Dihydroquinazolin-4(3*H*)-ones. Reinvestigation of a Recently Reported 1,3,4-Benzotriazepine Synthesis

Ferenc Fülöp*, Mario Simeonov and Kalevi Pihlaja
Department of Chemistry, University of Turku, SF-20500 Turku, Finland



7a-d



8a-d

A recent paper (*Bull. Chem. Soc. Jpn.* 59, 1575 /1986/) reported that the reactions of *o*-aminobenzoylhydrazine with benzylideneanilines lead to the formation of 1,3,4-benzotriazepin-5-one or 1-(*o*-benzylideneaminobenzoyl)-2-benzylidenehydrazines, depending on the substituents used. This is shown by the present paper to be incorrect. Depending on the proportions of the reagents, the above reactions lead to 1-(*o*-aminobenzoyl)-2-benzylidenehydrazines (7) or 2-aryl-3-benzylideneamino-1,2-dihydroquinazolin-4(3*H*)-ones (8).

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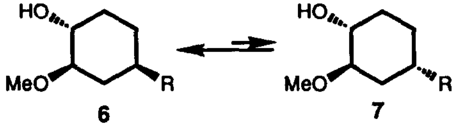
Practical, Asymmetric Synthesis of the Cyclohexyl C_{28}-C_{34} Fragment of the Immunosuppressant FK-506 *via* (*S*)-(-)-3-Cyclohexenecarboxylic Acid

Marco Chini,[§] Paolo Crotti,*[§] Franco Macchia,[§] Mauro Pineschi[§] and Lee A.Flippin[¶]
[§]Dipartimento di Chimica Bioorganica, Universita' di Pisa, Via Bonanno 33, 56126 Pisa, Italy, and [¶] Department of Chemistry and Biochemistry, San Francisco State University, 1600 Holloway Avenue, San Francisco, California 94132, USA.

The asymmetric synthesis of the cyclohexyl fragment (6b,c) of FK-506 is reported. The synthesis (five steps, 30% overall yield) starts, for the first time, from (S)-(-)-3-cyclohexenecarboxylic acid instead of the commonly used R form and utilizes an epimerization reaction. The overall yield is improved to 35% by recycling recovered starting ester 7c from the epimerization step.



6 7

a : R =CH_2OBn
b : R =CH_2OH
c : R =COOMe

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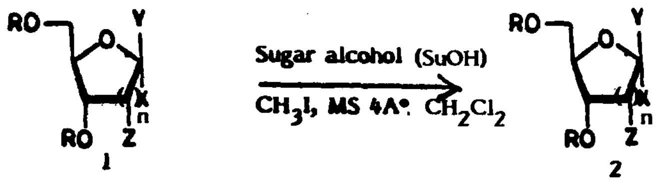
STEREOSELECTIVE SYNTHESIS OF α-LINKED 2-DEOXY-SACCHARIDES AND FURANOSACCHARIDES BY USE OF 2-DEOXY 2-PYRIDYL-1-THIO PYRANO- AND FURANOSIDES AS DONORS AND METHYL IODIDE AS AN ACTIVATOR

Hari Babu Mereyala*, Vinayak R Kulkarni , D Ravi , G V M Sharma, B Venkateswara Rao and G Bapu Reddy
Indian Institute of Chemical Technology, Hyderabad 500 007, India

Title synthesis is described.



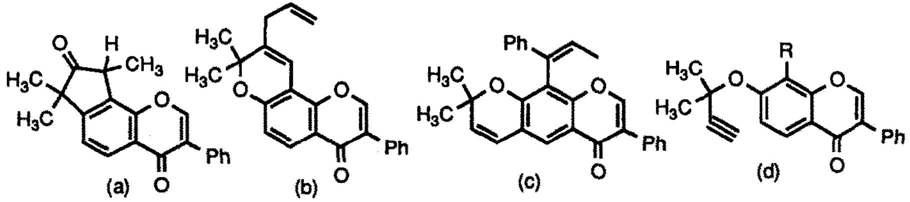
1 2

1. X = H, Y = 2.SPy,
   Z = H/OBn, R = Bn/Bz
2. X = OSu, Y = H,
   Z = H/OBn, R = Bn/Bz
   n = 1,2

Tetrahedron, **1992**, *48*, 563

A STUDY OF CLAISEN REARRANGEMENTS OF (1,1-DIMETHYL-3-PROP-2-YNYLOXY)-[4H]-1-BENZOPYRAN-4-ONE DERIVATIVES.

S. C. Joshi and K. N. Trivedi
Department of Chemistry, Faculty of Science,
Maharaja Sayajirao University of Baroda, Baroda 390002, INDIA.



(a) (b) (c) (d)

(a), (b) and (c) were synthesized from (d) by Claisen rearrangements.