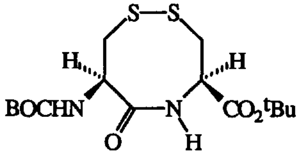
Tetrahedron 1993, *49*, 5891

THE CONFORMATION OF *CYCLO*-[(R)-CYSTEINYL-(R)-CYSTEINE] IN SOLUTION

Andrew Horne[a], Michael North[a]*, John A. Parkinson[b], and Ian H. Sadler[b]
a) Department of Chemistry, University of Wales, Bangor, Gwynedd, LL57 2UW
b) Department of Chemistry, The University of Edinburgh, King's Building, West Mains Rd., Edinburgh, EH9 3JJ

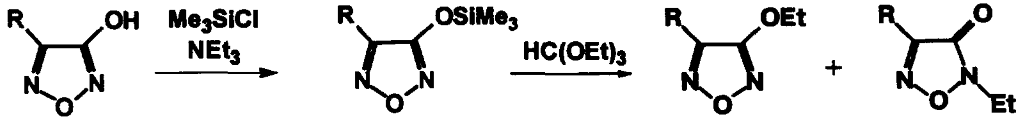


NMR and molecular mechanics calculations suggest that the title compound exists in chloroform solution as a mixture of two conformations which differ in the helicity of the disulphide, but both have a *cis* amide bond.

Tetrahedron 1993, *49*, 5905

1,2,5–OXADIAZOLES SUBSTITUTED AT RING NITROGEN. PART 1. SYNTHESIS AND STUDY OF 2–ETHYL–1,2,5–OXADIAZOL–3(2H)–ONES.

Aleksei B. Sheremetev*, Yuri A. Strelenko, Tat'yana S. Novikova, Lenor I. Khmel'nitskii
N.D.Zelinsky Institute of Organic Chemistry, Russian Academy of Sciences, 117913 Moscow, Russia.



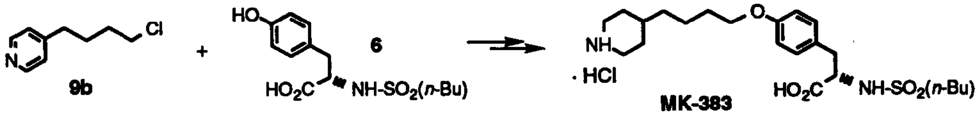
GRAPHICAL ABSTRACTS

Tetrahedron, 1993, *49*, 5767

A Practical Synthesis of Fibrinogen Receptor Antagonist MK-383. Selective Functionalization of (S)-Tyrosine

John Y.L. Chung,* Dalian Zhao, David L. Hughes and Edward J.J. Grabowski
Department of Process Research, Merck Research Laboratories, Merck & Co., Inc.,
P. O. Box 2000, Rahway, New Jersey 07065

The development of a highly efficient 4-step synthesis of MK-383 from 4-picoline and (S)-tyrosine is described.

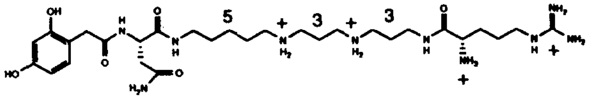


Tetrahedron, 1993, *49*, 5777

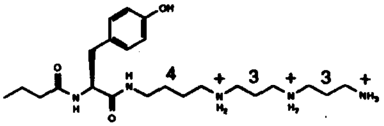
SYNTHESIS AND ASSAY OF HYBRID ANALOGS OF ARGIOTOXIN-636 AND PHILANTHOTOXIN-433: GLUTAMATE RECEPTOR ANTAGONISTS

Seok-Ki Choi, Koji Nakanishi*, Peter N. R. Usherwood[†]
Department of Chemistry, Columbia University, New York, NY 10027, USA
[†]Department of Life Science, University of Nottingham, Nottingham NG7 2RD, UK

The syntheses of argiotoxin-636 analogs and argiotoxin-636/philanthotoxin hybrids, and assay results on the glutamate receptors are presented.



Argiotoxin-636

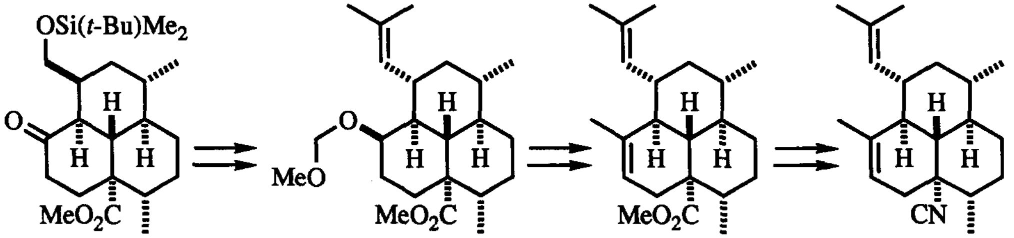


Philanthotoxin

Tetrahedron, 1993, *49*, 5791

TOTAL SYNTHESIS OF AMPHILECTANE-TYPE DITERPENOIDS : (±)-8-ISOCYANO-10,14-AMPHILECTADIENE.

Edward Piers* and Miguel A. Romero
Department of Chemistry, University of British Columbia, Vancouver, B.C., Canada V6T 1Z1

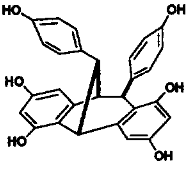


Tetrahedron, **1993**, *49*, 5801

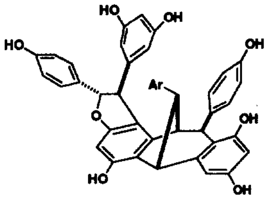
AMPELOPSINS F AND G, NOVEL BRIDGED PLANT OLIGOSTILBENES FROM *AMPELOPSIS BREVIPEDUNCULATA* VAR. *HANCEI* ROOTS (VITACEAE)

Yoshiteru Oshima
Department of Bioscience and Biotechnology, Faculty of Engineering,
Aomori University, Kobata, Aomori 030, Japan
Yuji Ueno
Pharmaceutical Institute, Tohoku University,
Aoba-yama, Aoba-ku, Sendai 980, Japan
Kanehiko Hisamichi and Mitsuhiro Takeshita
Tohoku College of Pharmacy, Komatsushima, Aoba-ku, Sendai 981, Japan

Ampelopsins F (1) and G (2), two novel oligostilbenes having structurally unusual dibenzobicyclo[3.2.1]octadiene system have been isolated from *Ampelopsis brevipedunculata* var. *hancei* roots.



1



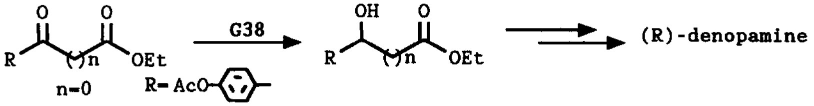
2

Tetrahedron, **1993**, *49*, 5805

Reductive Biotransformation of Carbonyl Compounds --Application of Fungus, *Geotrichum sp.*G38 in Organic Synthesis

Gu Jian-Xin, Li Zu-Yi, Lin Guo-Qiang*
Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences,
345 Lingling Lu, Shanghai 200032, China

Chiral key intermediates and several bioactive compounds were obtained by using the bioreduction of *Geotrichum sp.*G38 with R stereoselectivity.



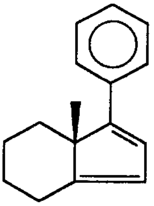
Tetrahedron, **1993**, *49*, 5817

Dienes as Chiral Templates : Easy Access to pure (2*S*,3*S*,4*R*)-4-Hydroxy-2,3-epoxycyclohex-5-en-1-one

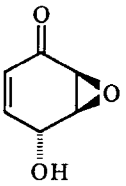
Antony Mauvais, Ekkehard Winterfeldt*
Institut für Organische Chemie der Universität Hannover, Schneiderberg 1B, D-3000 Hannover 1, Germany.

With the chiral diene 2, a concise sequence including a Diels-Alder reaction and the retro-process gave the title compound 6 in 64% overall yield, starting from 1,4-benzoquinone.

2



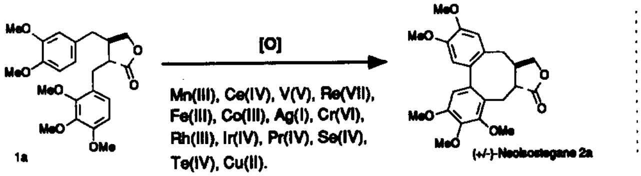
6



Tetrahedron, **1993**, *49*, 5823

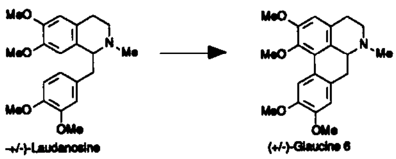
Synthesis of Non-Phenolic Bisbenzocyclooctadiene Lignan Lactones and Aporphinic Alkaloids, by Oxidative Coupling with New Agents in Fluoro Acid Medium. IV.

D. Planchenault, R. Dhal and J.-P. Robin*
Département de Chimie, Institut Universitaire de Technologie, Université du Maine, Route de Laval, 72017 Le Mans Cedex, France.



1a

(+/-)-Neoisostegane 2a



-+/-)-Laudanosine

(+/-)-Glaucine 6

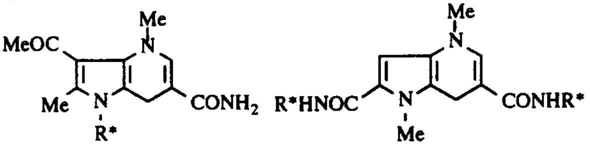
Tetrahedron, **1993**, *49*, 5831

SYNTHESIS OF CHIRAL NADH MODEL COMPOUNDS IN THE PYRROLO[3,2-b]PYRIDINE SERIES MODELS WITH A CHIRAL GROUP ON THE PYRROLE NITROGEN OR ON THE CARBOXAMIDE SIDE CHAIN.

Marie-Odile Monnet, Pierre Prévost, Georges Dupas, J. Bourguignon* and Guy Quéguiner.
URA 1429 CNRS / Institut National des Sciences Appliquées.
BP-08. 76131 Mont Saint Aignan Cédex (France).

Attempts to synthesize NADH models annulated with a pyrrole ring bearing a chiral auxilliary are described. Similar methodology afforded a chiral bis amide derived from phenylalaninol.

The compounds obtained have been tested in the enantioselective reduction of methyl benzoylformate

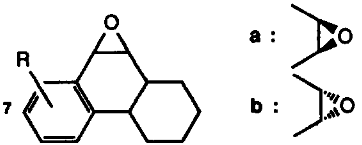


Tetrahedron, **1993**, *49*, 5845

AROMATIC SUBSTITUENT EFFECT ON THE STEREOSELECTIVITY OF THE GAS-PHASE ACID-INDUCED RING OPENING IN 9,10-OXIDES DERIVED FROM *trans*-1,2,3,4,4a,10a-HEXAHYDROPHENANTHRENE

M.Chini,[a] P.Crotti,[a*] F. Minutolo,[a] E. Dezi,[b] A. Lombardozzi,[b]A. Pizzabiocca,[b] G. Renzi[b*]
[a]Dipartimento di Chimica Bioorganica, Università di Pisa, via Bonanno 33, I-56126 Pisa, Italy.
[b]Dipartimento di Scienze Chimiche, Università di Camerino, Via S.Agostino 1, I-62032 Camerino, Italy.

The effect of the aromatic substituent on the pruduct distribution of gas-phase acid-induced ring opening of benzocondensed epoxides 2a and 2b with MeOH was examined, and compared with results from methanolysis. The syn/anti diastereoselectivity observed is strictly dependent on the aromatic ring substituent (6-OCH$_3$ or 7-Br) and a very satisfactory Hammett-type linear correlation was found for both epoxides. A razionalization of the results is given.



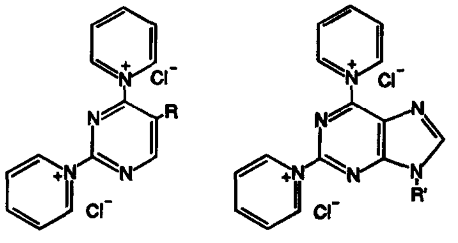
2, R=H,6-OCH$_3$, 7-Br

Tetrahedron, **1993**, *49*, 5859

PYRIDINE ASSISTED PHOSPHORYLATIONS OF NUCLEOBASE BIS-LACTAM SYSTEMS.
FORMATION AND REACTIVITY OF DIPYRIDINIUM SPECIES.

Bohdan Skalski[1], Grażyna Wenska[1], Zofia Gdaniec[2] and Ryszard W. Adamiak[2]*
[1]Faculty of Chemistry, Adam Mickiewicz University, Poznań, Poland
[2]Institute of Bioorganic Chemistry, Polish Academy of Sciences, Poznań, Poland

Uracil, thymine, xanthine and O-acetylated xanthosine undergo pyridine assisted phosphorylations with formation of respective dipyridinium products. Their synthesis, spectral properties and reactivity is described.



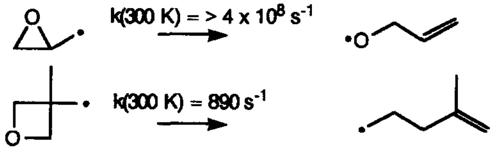
R = H, CH_3 R' = H, R' = 2',3',5'-tri-O-acetyl-β-D-ribofuranosyl

---

Tetrahedron, **1993**, *49*, 5869

"Ring Opening of Oxiranylmethyl and 3-Methyl-3-oxetanylmethyl Radicals

David Laurie,[a] Derek C. Nonhebel,[a]* Colin J. Suckling[a] and John C. Walton[b]*
[a]Department of Pure and Applied Chemistry, University of Strathclyde, Glasgow G1 1XL
[b]Chemistry Department, University of St. Andrews, St. Andrews, Fife KY16 9ST



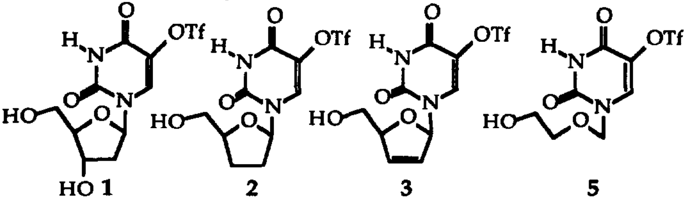
Comparison of the rates of ring opening of oxiranylmethyl and 3-methyl-3-oxetanylmethyl radicals with cyclopropylmethyl and 1-methylcyclobutylmethyl radicals respectively suggests that the transition states have dipolar character.

Tetrahedron, **1993**, *49*, 5873

APPROACHES TO SUGAR MODIFIED 5-TRIFLUOROMETHANESULFONYLPYRIMIDINE NUCLEOSIDES

Geoffrey T. Crisp* and Bernard L. Flynn
Department of Organic Chemistry, University of Adelaide, Adelaide, South Australia, Australia, 5001

Approaches to the synthesis of sugar ring modified C5-trifluoromethanesulfonyluridine nucleosides and acyclic sugar derivatives of C5-trifluoromethanesulfonyluracil are described. Compounds 1 and 5 have been prepared as well as protected precursors to compounds 2 and 3.



1 2 3 5