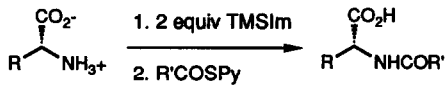
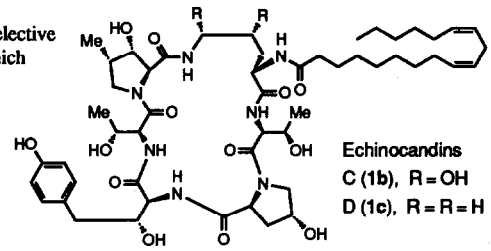
Tetrahedron, **1993**, *49*, 6195

SYNTHETIC STUDIES ON ANTIFUNGAL CYCLIC PEPTIDES, ECHINOCANDINS. STEREOSELECTIVE TOTAL SYNTHESIS OF ECHINOCANDIN D VIA A NOVEL PEPTIDE COUPLING

Natsuko Kurokawa and Yasufumi Ohfune*
Suntory Institute for Bioorganic Research, Shimamoto-cho, Osaka 618, Japan

Total synthesis of echinocandin D (1c) has been accomplished via a stereoselective synthesis of its constituent amino acids followed by the peptide coupling which was accompanied by the development of an efficient coupling method using unprotected amino acid and trimethylsilyl imidazole (TMSIm).

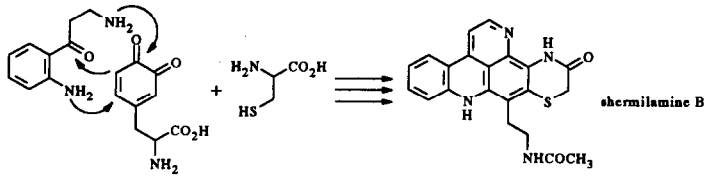




Tetrahedron, **1993**, *49*, 6223

Biosynthesis of Shermilamine B

Bert Steffan[a]*, Klaudia Brix[b], Winfried Pütz[c]
[a]Institut für Organische Chemie der Universität München, Karlstraße 23, D- 8000 München 2; [b]Institut für Zellbiologie der Universität Bonn, Ulrich-Haberland-Str. 61a, [c]Institut für Physikalische Chemie der Universität Bonn, Wegelerstr. 12, D-5300 Bonn, Germany.



The biosynthesis of shermilamine B is proposed wich involves tryptophan, dopamine and cysteine.

Tetrahedron, **1993**, *49*, 6229

MICROWAVE HEATING AS A NEW WAY TO INDUCE SELECTIVITY BETWEEN COMPETITIVE REACTIONS. APPLICATION TO CONTROL OF ISOMERIC RATIO IN SULFONATION OF NAPHTALENE

D. Swierga*, K. Gonon, and M. Lallemant
Laboratoire de Recherches sur la Reactivite des Solides, Fac. Mirande, BP 138 21004 DIJON Cedex FRANCE

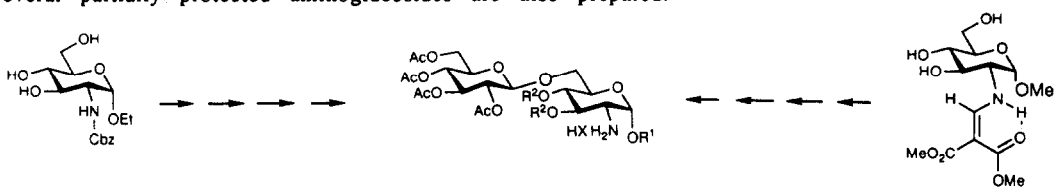
Heating rate associated with microwave heating are used to control isomeric ratio in sulfonation of naphtalene. General considerations about use of microwave heating in organic syntheses are also considered. The authors show specificities of microwave heating in terms of reactivity, associated with control of very fast heating rate.

Tetrahedron, **1993**, *49*, 6235

SYNTHESES OF *O*-PROTECTED 2-AMINO-2-DEOXY-GENTIOBIOSIDE HYDROHALIDES.

José Fuentes*, Tomasa Cuevas, and M. Angeles Pradera
Departamento de Química Orgánica, Facultad de Química, Universidad de Sevilla, 41071 Sevilla. Spain

The title compounds are synthesized from *N*-protected 2-amino-2-deoxy-D-glucosides using two different *N*-protecting groups. The best overall yields are obtained when the Cbz group is used. Several partially protected aminoglucosides are also prepared.

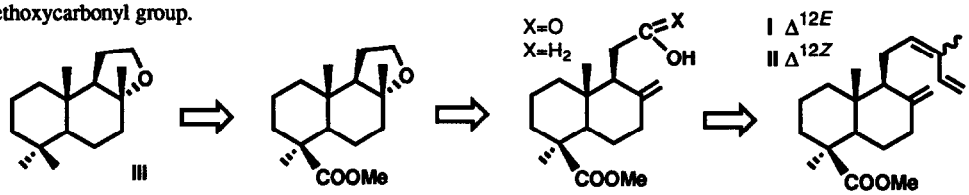


Tetrahedron, **1993**, *49*, 6251

SYNTHESIS OF *AMBROX*® FROM COMMUNIC ACIDS

Alejandro F. Barrero,* Joaquín Altarejos, Enrique J. Alvarez-Manzaneda,
José M. Ramos and Sofía Salido
Departamento de Química Orgánica, Facultad de Ciencias, Universidad de Granada, 18071 Granada (Spain)

The methyl esters of the communic acids (I, II) have been converted into (-)-ambrox (III) through the selective degradation of their side chains, stereoselective formation of the tetrahydrofurane ring, and reduction of the axial methoxycarbonyl group.

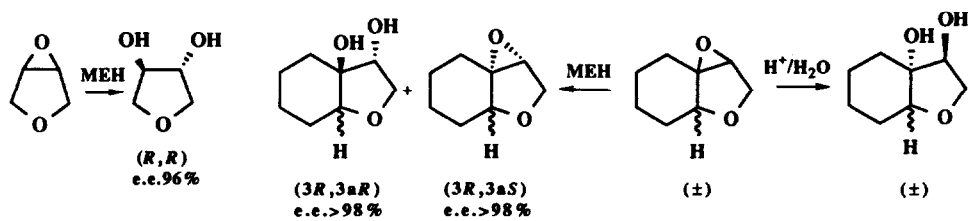


Tetrahedron, **1993**, *49*, 6263

Regio- and Stereochemistry of the Acid Catalyzed and of a Highly Enantioselective Enzymatic Hydrolysis of Some Epoxytetrahydrofurans.

P.L. Barili, G. Berti and E. Mastrorilli* University of Pisa (Italy).

Highly enantioselective hydrolyses with microsomal epoxide hydrolase (MEH). Opposite regioselectivity in acid catalyzed hydrolyses

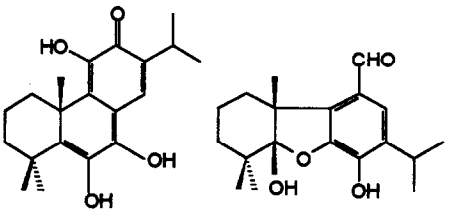


Tetrahedron, **1993**, *49*, 6277

NEW DITERPENES FROM *SALVIA MUNZII*: CHEMICAL AND BIOGENETIC ASPECTS

Javier G. Luis* and Teresa A. Grillo
C.P.N.O.A.G., U.La Laguna, 38206 Tenerife, Canary Islands, Spain

New natural diterpenes, 5,6-didehydro-7-hydroxy-taxodone **1**, and salvicanaraldehyde **4** and known compounds were isolated from the roots of *Salvia munzii* and characterized from their spectroscopic data and by chemical correlations. Our earlier hypothesis of a biogenetic pathway to highly oxidized abietatriene diterpenes involving enzymatic dehydrogenation and singlet-state oxygen was further confirmed.



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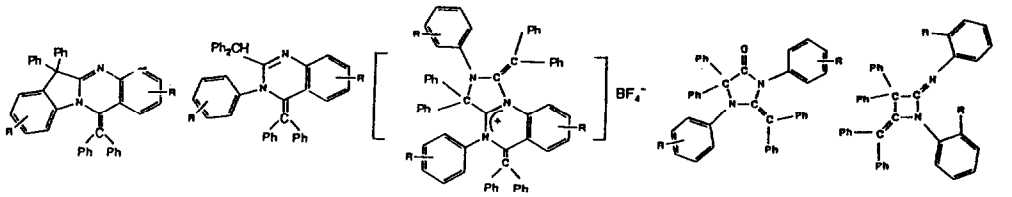
Tetrahedron, **1993**, *49*, 6285

ELECTRONIC, STERIC AND ACID-BASE EFFECTS ON THE ANODIC OXIDATION OF ARYL-SUBSTITUTED KETENE IMINES

James Y. Becker* and Elias Shakkour, Department of Chemistry, Ben-Gurion University of the Negev, Beer Sheva 84120, Israel

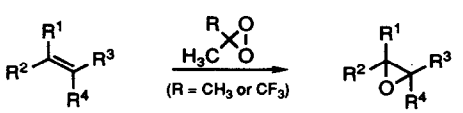
Abstract: The electrochemical properties of nine aryl-substituted ketene imines of type $XC_6H_4N{=}C{=}CPh_2$ have been studied by cyclic voltammetry, in dichloromethane and acetonitrile. Their anodic oxidation leads to various heterocycles, depending on the nature of substituent, its position on the aryl ring, and the experimental conditions.

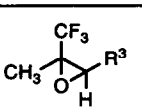


Tetrahedron, **1993**, *49*, 6299

REGIO- AND CHEMOSELECTIVE EPOXIDATION OF FLUORINATED MONOTERPENES AND SESQUITERPENES BY DIOXIRANES

Anna-Maria Lluch [a], Francisco Sánchez-Baeza [a], Caterina Fusco [b], Ruggero Curci [b] and Angel Messeguer [a]*
[a] Dpt. of Biological Organic Chemistry, CID (CSIC). J. Girona, 18. 08034 Barcelona, Spain.
[b] CNR Centre "M.I.S.O.", Dpt. of Chemistry, University of Bari, via Amendola 173, Bari, 70126 Italy.





The first direct preparation of these epoxides by non-biochemical means.

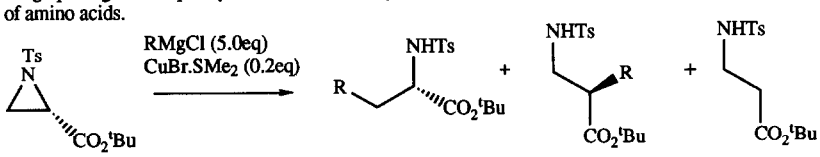
Trend in ease of epoxidation: $(CH_3)(R^1)C{=}CH(R^3) \equiv (CH_3)(R^1)C{=}CH(CH_2OR^5) \equiv (CH_3)(R^1)C{=}CF(R^3) >> (CH_3)(R^1)C{=}CH(COOR^5) > (CF_3)(R^1)C{=}CH(R^3)$.

Tetrahedron, **1993**, *49*, 6309

AMINO ACID SYNTHESIS VIA RING OPENING OF N-SULPHONYL AZIRIDINE-2-CARBOXYLATE ESTERS WITH ORGANOMETALLIC REAGENTS

Jack E. Baldwin, Alan C. Spivey, Christopher J. Schofield and J. B. Sweeney
The Dyson Perrins Laboratory and the Oxford Centre for Molecular Sciences, South Parks Road, Oxford, OX1 3QY, UK

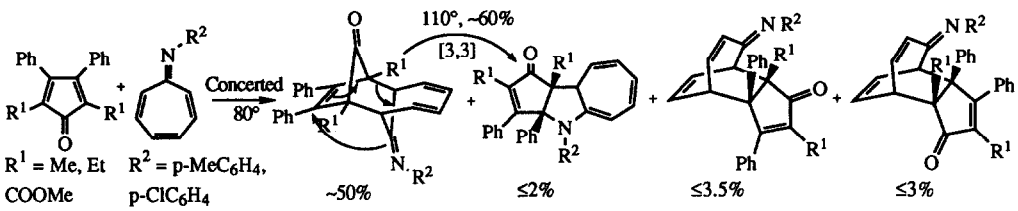
Ring opening of N-suphonyl aziridine-2-carboxylate esters with organometallic reagents was investigated as a method for the synthesis of amino acids.



Tetrahedron, **1993**, *49*, 6331

Periselectivity in the Reactions of Cyclopentadienones with 8-Aryl-8-azaheptafulvenes

Anna Gamba,[a] Remo Gandolfi,[a] Roberta Oberti[b] and Nicola Sardone[b]
a) Dip. Chim. Organica, Universita' di Pavia; b) Centro CNR per la Cristallochimica e la Cristallografia, Pavia-Italy



R^1 = Me, Et COOMe R^2 = p-MeC_6H_4, p-ClC_6H_4 ~50% ≤2% ≤3.5% ≤3%