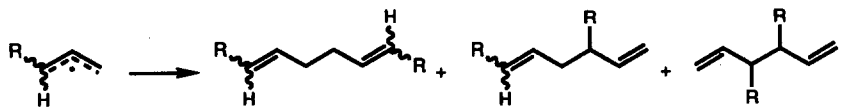
*Tetrahedron*, **1993**, *49*, 3259

## ON THE REGIOSELECTIVITY OF COUPLING OF SUBSTITUTED ALLYL RADICALS. STERIC VERSUS FMO CONTROL

Daniel J. Pasto* and Gael L'Hermine, Department of Chemistry and Biochemistry, University of Notre Dame, Notre Dame, IN 46556

The regiocelectivity of the coupling of substituted allyl radicals has been investigated, the results showing that both steric and FMO (SOMO) effects are operative.

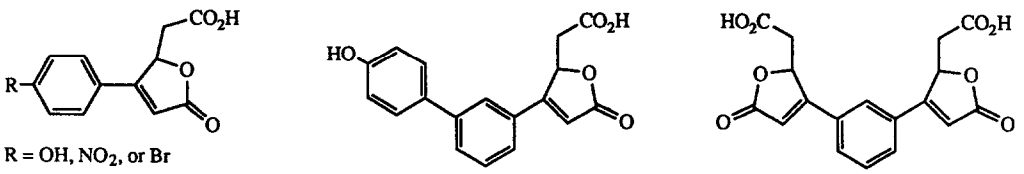


*Tetrahedron*, **1993**, *49*, 3273

## SYNTHESIS OF 3-ARYLMUCONOLACTONES USING BIPHENYL METABOLISM IN *ASPERGILLUS*

David P. Mobley,* Herman L. Finkbeiner, Suzanne H. Lockwood and Jay Spivack
GE Corporate Research and Development, P. O. Box 8, Schenectady, NY 12301

3-Arylmuconolactones are synthesized by *Aspergillus* fungi from biphenyl and substituted biphenyls.

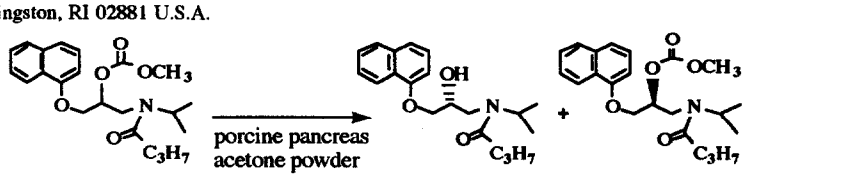


R = OH, $NO_2$, or Br

*Tetrahedron*, **1993**, *49*, 3281

## BIOCATALYTIC RESOLUTION OF DL-PROPRANOLOL. A SUCCESSFUL EXAMPLE OF COMPUTER-AIDED SUBSTRATE DESIGN

Ching-Shih Chen,* Da-Ming Gou, Woan-Ru Shieh, and Yeuk-Chuen Liu
Department of Pharmacognosy & Environ. Health Sci., College of Pharmacy, University of Rhode Island, Kingston, RI 02881 U.S.A.



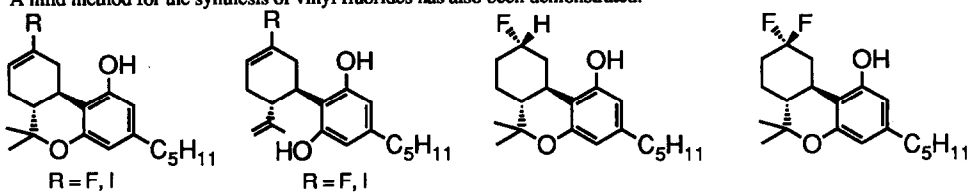

c = 47% ee = 0.91 ee = 0.82 E = 76

*Tetrahedron*, **1993**, *49*, 3291

## HALOGENATED CANNABINOID SYNTHESIS

Marcus A. Tius, G. S. Kamali Kannangara and Michael A. Kerr
Department of Chemistry, University of Hawaii, 2545 The Mall, Honolulu, Hawaii 96822, U.S.A.
Krista J. S. Grace
Pharmacology Research and Teaching Program, Department of Biological Sciences, University of California, Santa Barbara, California 93106-9610, U.S.A.

A convenient synthesis of several tricyclic and bicyclic fluoro- and iodo analogs of cannabinoids has been reported. These analogs, along with (-) and (+)-$\Delta^9$-THC carboxylic acids, have been screened for anti-inflammatory activity in the mouse ear edema assay. A mild method for the synthesis of vinyl fluorides has also been demonstrated.



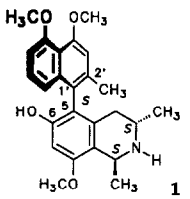

*Tetrahedron*, **1993**, *49*, 3305

## CIRCULAR DICHROISM OF NAPHTHYLTETRAHYDROISO QUINOLINE ALKALOIDS:

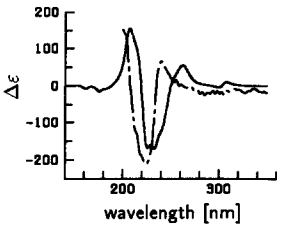
## CALCULATION OF CD SPECTRA BY SEMIEMPIRICAL METHODS

G. Bringmann*[a], K.-P. Gulden[a], H. Busse[a], J. Fleischhauer*[b], B. Kramer[b], and E. Zobel[b]
[a]Institut für Organische Chemie, Universität Würzburg, D-8700 Würzburg, FRG;
[b]Lehr- und Forschungsgebiet Theoretische Chemie, RWTH-Aachen, D-5100 Aachen, FRG.

The circular dichroism (CD) of ancistrocladine (1) and its atropdiastereomer hamatine have been calculated using the CNDO/2S method. Experimental (— - —) and theoretical (—) CD spectra are in good agreement.




1

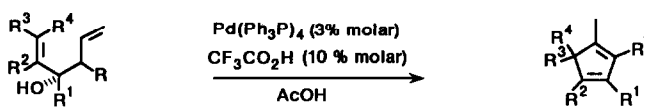



*Tetrahedron*, **1993**, *49*, 3313

## PALLADIUM-MEDIATED CYCLIZATION OF 1,5-HEXADIEN-3-OLS TO 1-METHYL-1,3-CYCLOPENTADIENES.

Touriya Zair, Christiane Santelli-Rouvier and Maurice Santelli*
URA au CNRS n° 1411, Centre de St-Jérôme, Av. Esc. Normandie-Niemen, 13397 Marseille Cedex 20 (France)

Treatment of 1,5-hexadien-3-ols in acetic acid by Pd(0) [$Pd(PPh_3)_4$] led to 1-methyl-1,3-cyclopentadienes. Cyclization is improved by the presence of catalytic amount of trifluoroacetic acid. Mechanism is discussed from the observed results with deuterated alcohols.

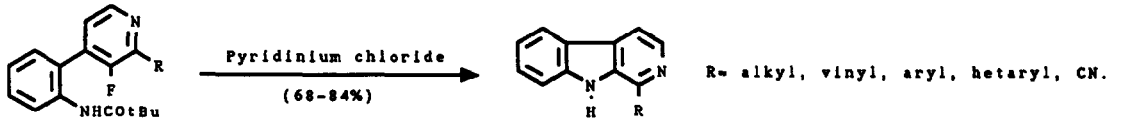


*Tetrahedron*, **1993**, *49*, 3325

## A NEW CONVERGENT SYNTHESIS OF α-SUBSTITUTED-β-CARBOLINES.

Patrick ROCCA, Francis MARSAIS, Alain GODARD and Guy QUEGUINER*.
URA CNRS 1429, INSA de Rouen, BP 08, 76131 Mont-Saint-Aignan Cédex, FRANCE.

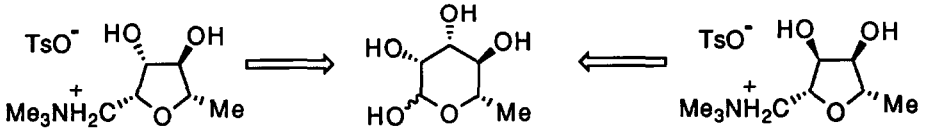
α-Substituted-β-carbolines were prepared through metalations, cross-couplings and intramolecular substitution via (2-aminobenzene)boronic acid, arylstannanes and ortho-fluoroiodopyridines.




*Tetrahedron*, **1993**, *49*, 3343

## 3-HYDROXYMUSCARINES FROM L-RHAMNOSE

Simon J. Mantell,[a] Peter S. Ford,[b] David J. Watkin,[b] George W. J. Fleet[a*] and David Brown[c]
[a]Dyson Perrins Laboratory, Oxford University, South Parks Road, Oxford OX1 3QY, UK
[b]Chemical Crystallography Laboratory, Oxford University, 9, Parks Road, Oxford OX1 3PD, UK
[c]Pfizer Central Research, Sandwich, Kent CT13 9NJ, UK

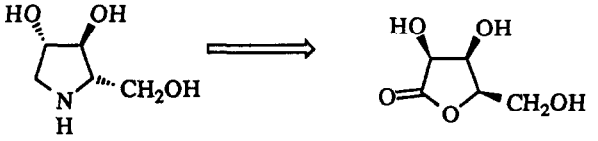


*Tetrahedron*, **1993**, *49*, 3359

## SYNTHESIS FROM D-LYXONOLACTONE OF 1,4-DIDEOXY-1,4-IMINO-L-ARABINITOL, A GLUCOSIDASE INHIBITOR WITH *IN VITRO* ANTI-VIRAL ACTIVITY

James R. Behling,[a] Arthur L. Campbell,[a] Kevin A. Babiak,[a] John S. Ng,[a] John Medich,[a] Payman Farid[a] and George W. J. Fleet[b]
[a]G D Searle, 4901, Searle Parkway, Skokie, Illinois, 60077, U S A
[b]Dyson Perrins Laboratory, Oxford University, South Parks Road, Oxford OX1 3QY, U K

Benzylidenation is the only protection required in a 7 step synthesis of the hydrochloride of 1,4-dideoxy-1,4-imino-L-arabinitol from D-lxyonolactone in an overall yield of 21%.

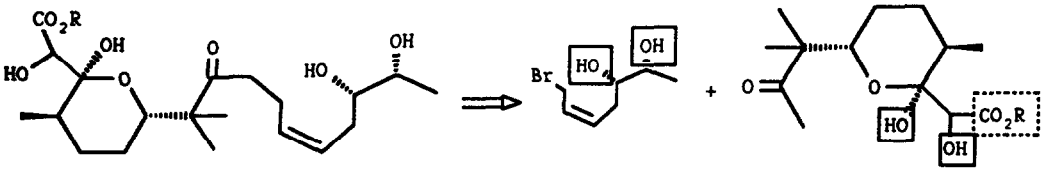


*Tetrahedron*, **1993**, *49*, 3367

## SIMILAR GROUP INTERFERENCES. A GENERAL APPROACH TO THE LOCATION OF INTERFERING FUNCTIONALITIES.

**L. Baumer, G. Sala, G. Sello.** Dipartimento di Chimica Organica e Industriale, Universita' di Milano, via Venezian 21, Milano, Italy.

The location and evaluation of interfering functionalities is realized by a procedure that uses a group of molecular descriptors. Nucleophilic and electrophilic situations are distinguished. An example is:

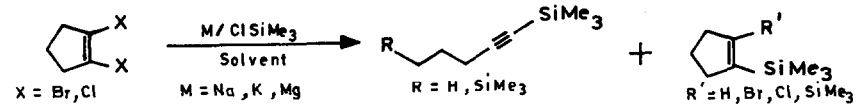


*Tetrahedron*, **1993**, *49*, 3387

## REACTIONS OF 1,2-DIHALOCYCLOALKENES WITH ALKALI METALS IN PRESENCE OF CHLOROTRIMETHYLSILANE. REDUCTIVE CARBON-CARBON BOND CLEAVAGE IN FIVE MEMBERED HOMOCYCLIC SYSTEM

S. HariPrasad and Gopalpur Nagendrappa*
Department of Chemistry, Bangalore University (Central College Campus),
Bangalore-560 001, India

Alkali metals effect ring cleavage of 1,2-dihalocyclopentenes in presence of $ClSiMe_3$ to silylated 1-pentynes. The results depend on solvent and metal.



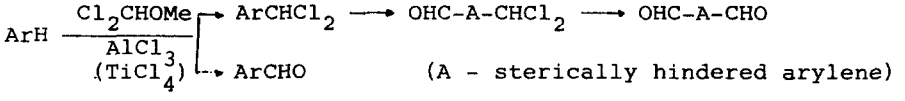
*Tetrahedron*, **1993**, *49*, 3397

## FORMYLATION AND DICHLOROMETHYLATION AS ALTERNATIVE DIRECTIONS OF RIECHE REACTION. A NOVEL APPROACH TO THE SYNTHESIS OF STERICALLY HINDERED AROMATIC DIALDEHYDES

Alexander P. Yakubov, Dmitry V. Tsyganov, Leonid I. Belen`kii*, Mikhail M. Krayushkin

N.D.Zelinsky Institute of Organic Chemistry, Russian Academy of Sciences, 117913, Moscow, Russian Federation

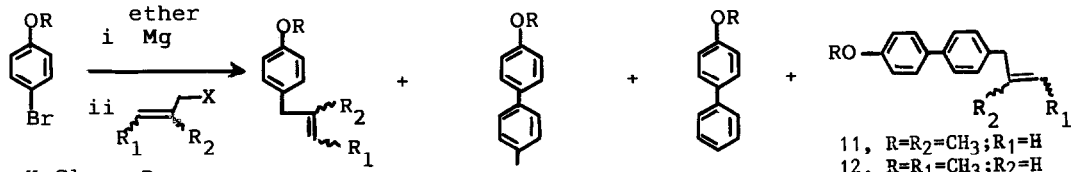
A previously unknown direction of Rieche reaction, i.e. dichloromethylation has been found. Dichloromethyl group is offered as a protective one for preparation of sterically hindered aromatic dialdehydes.



*Tetrahedron*, **1993**, *49*, 3405

## EVIDENCE FOR THE OCCURRENCE OF SUBSTITUTION SIDE PRODUCTS IN GRIGNARD REACTIONS

Nordin H. Lajis*, Mohammad Niyaz Khan and Hazimah A. Hassan; Chemistry Department, Universiti Pertanian Malaysia, 43400 UPM Serdang, Selangor, Malaysia

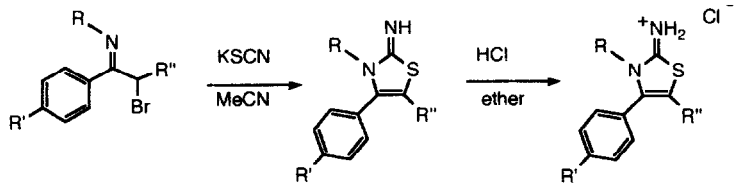



*Tetrahedron*, **1993**, *49*, 3411

## A NOVEL SYNTHESIS OF 2-IMINO-4-THIAZOLINES FROM α-BROMOKETIMINES

N. De Kimpe,* M. Boelens and J.-P. Declercq
Department of Organic Chemistry, University of Gent, Faculty of Agricultural and Applied Biological Sciences, B-9000 Gent, Belgium

Reaction of α-bromoketimines with potassium cyanate in acetonitrile gave rise to 2-imino-4-thiazolines




*Tetrahedron*, **1993**, *49*, 3425

## CYTOTOXIC 9,10-DIHYDROPHENANTHRENES FROM *Juncus effusus* L.

M.Della Greca, A.Fiorentino, L.Mangoni, A.Molinaro, P.Monaco and L.Previtera
Dipartimento di Chimica Organica e Biologica, Università Federico II, Via Mezzocannone 16, I-80134 Napoli, Italy.

Eighteen 9,10-dihydrophenanthrenes have been isolated from *Juncus effusus* and their structures have been determined on the basis of the physical features. The brine shrimp lethality assay and the antitumor potato disc assay evidenced good cytotoxic activity for many of them.