

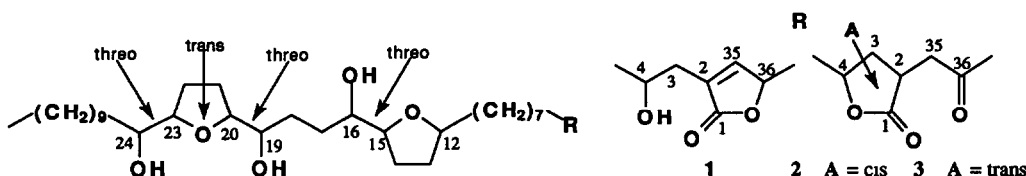
GRAPHICAL ABSTRACTS

New Cytotoxic Annonaceous Acetogenins: Bullatanocin and cis- and trans-Bullatanocinone, from *Annona bullata* (Annonaceae)

Tetrahedron, 1993, 49, 747

Zhe-ming Gu, Xin-ping Fang, Matthew J Rieser, Yu-hua Hui, Laura R Miesbauer, David L Smith, Karl V Wood^a, and Jerry L McLaughlin* Department of Medicinal Chemistry and Pharmacognosy, School of Pharmacy and Pharmacal Sciences, and ^aDepartment of Chemistry, School of Sciences, Purdue University, West Lafayette, IN 47907, U S A

Three new cytotoxic Annonaceous acetogenins, bullatanocin (1), cis-bullatanocinone (2), and trans-bullatanocinone (3), were isolated along with desacetylivanicin, and their bioactivities are reported.



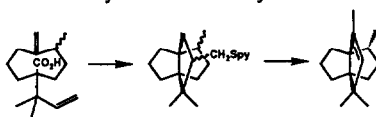
Tandem Transannular Radical Cyclizations. Total Syntheses of (±)-Modhephene and (±)-Epi-Modhephene

Tetrahedron, 1993, 49, 755

Dennis P Curran and Wang Shen

Department of Chemistry, University of Pittsburgh, Pittsburgh, PA 15260, USA

Modhephene and epi-modhephene have been synthesized by a new tandem transannular radical cyclization strategy. The key tandem cyclization is conducted by the Barton thiohydroxamate method with an exo(methylene)cyclooctane.



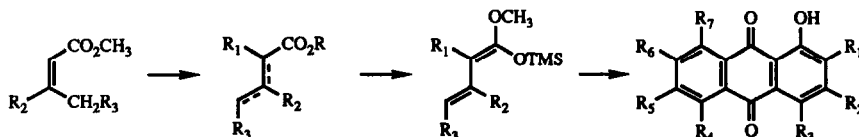
AN INTEGRATED APPROACH TO THE SYNTHESIS OF CONTIGUOUSLY SUBSTITUTED XANTHOPURPURINS, PACHYBASINS AND PURPURINS.

Tetrahedron, 1993, 49, 771

Brigitte Caron and Paul Brassard*

Département de chimie, Université Laval, Québec, Canada G1K 7P4

The structure of vismaquinone C, 7-geranylmodin, cinnalutein, 4,5-dihydroxydigitoluein, 2-hydroxyislandicin 1-methyl ether and calyculatone 1-methyl ether have been confirmed by unambiguous synthesis.

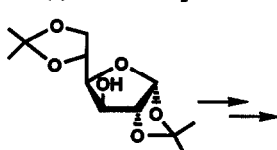


Total Synthesis of (+)-Valyldetoxinine and (-)-Detoxin D₁

Wen-Ren Li, So-Yeop Han[†], and Madeleine M. Joullie*

[†]Department of Chemistry, Ewha Womans University, Seoul 120-750, Korea and
Department of Chemistry, University of Pennsylvania, Philadelphia, PA 19104-6323

Two approaches toward the total synthesis of (+)-valyldetoxinine and (-)-detoxin D₁ are described. These routes involve a 2,3-disubstituted pyrrolidine as a common intermediate, and utilize glucose as the chiral precursor

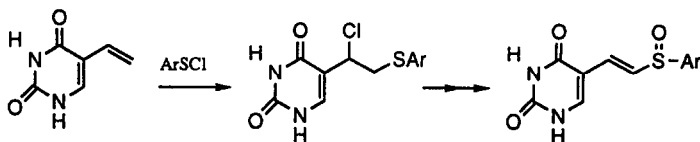


detoxin D₁ R₁ = Ac, R₂ = (S)-2-methylbutyryl-L-phenylalanine
valyldetoxinine R₁ = H, R₂ = H

A NEW APPROACH TO THYMIDYLATE SYNTHETASE INHIBITORS

Vittorio Farina* and Raymond A. Firestone, Bristol-Myers Squibb Pharmaceutical Research Institute, 5 Research Parkway, Wallingford CT 06492-7660 U S A

We describe two routes to uracil and 2'-deoxyuridine derivatives bearing vinylsulfoxide moieties at C-5 as a potential approach to cancer therapy



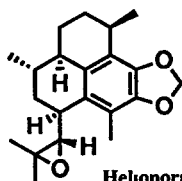
Helioporins: Bioactive Diterpenes from the Blue Coral *Heliopora coerulea*

J. Tanaka, N. Ogawa, J. Liang, T. Higa, and D. G. Gravalos[†]

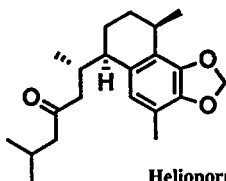
Department of Marine Sciences, University of the Ryukyus, Nishihara, Okinawa 903-01, Japan

[†]PharmaMar Research Institution, 28046 Tres Cantos, Madrid, Spain

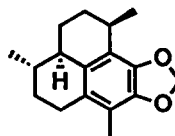
Seven new diterpenes, helioporsins A - G (e.g. 1, 2) have been isolated. Reaction of 1 with TMSI/NaI/McCN gave 11



Helioporsin A (1)



Helioporsin B (2)

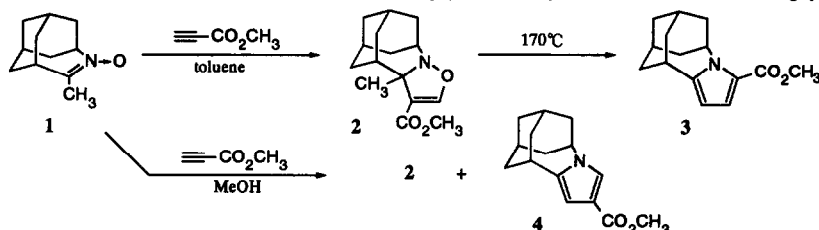


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SYNTHESIS AND 1,3-DIPOLAR CYCLOADDITION REACTION OF HOMOADAMANTANE-INCORPORATED NITRONES AND REARRANGEMENT OF THE CYCLOADDUCTS TO HOMOADAMANTANE-FUSED PYRROLES

Yang Yu, Masatomi Ohno, Shoji Eguchi*

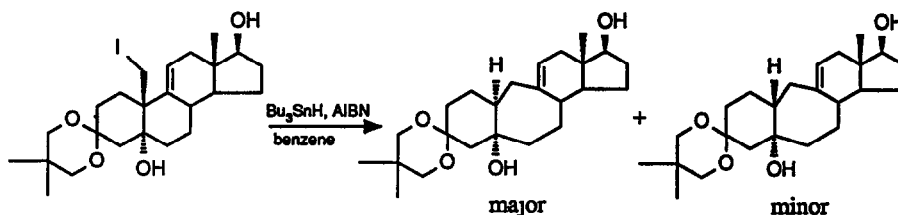
Institute of Applied Organic Chemistry, Faculty of Engineering, Nagoya University, Furo-cho, Chikusa-ku, Nagoya 464-01, Japan



A RADICAL APPROACH TO THE SYNTHESIS OF 9(10→19)ABEO-STEROIDS

Günter Neef, Eml Eckle and Anke Müller-Fahrnow

Research Laboratories of Schering AG, D-1000 Berlin 65, Germany



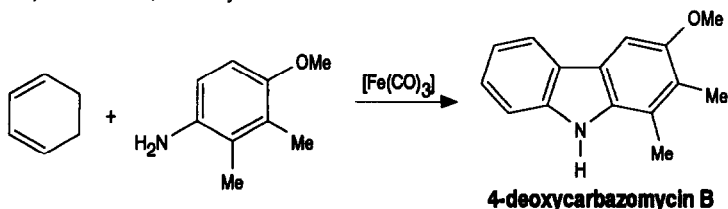
TRANSITION METAL-DIENE COMPLEXES IN ORGANIC SYNTHESIS

- 13. HIGHLY CHEMO- AND STEREOSELECTIVE OXIDATIONS OF

TRICARBONYLIRON-CYCLOHEXADIENE COMPLEXES: SYNTHESIS OF 4-DEOXYCARBAZOMYCIN B

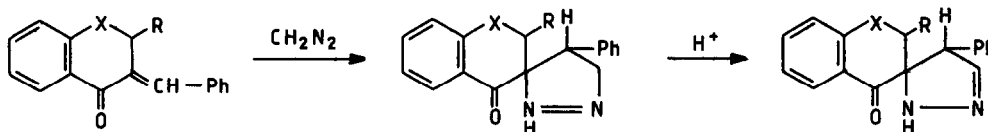
Hans-Joachim Knölker,* Michael Bauermeister, and Jörn-Bernd Pannek, Institut für Organische Chemie, Universität Karlsruhe, Richard-Willstätter-Allee, 7500 Karlsruhe 1, Germany, Dieter Bläser and Roland Boese, Institut für Anorganische Chemie, Universität-GHS Essen, Universitätsstraße 5-7, 4300 Essen 1, Germany

The selective iron-mediated oxidative coupling of 1,3-cyclohexadiene and 4-methoxy-2,3-dimethylaniline provides a direct access to 4-deoxycarbazomycin B



**SYNTHESIS AND CONFORMATIONAL ANALYSIS OF
SOME SPIROPYRAZOLINE ISOMERS**

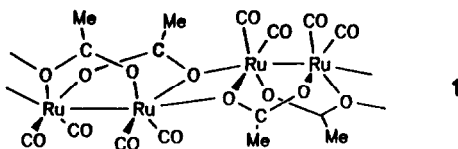
Gábor Tóth* (Technical University, Budapest), Albert Lévai (Debrecen), Áron Szöllősy (Budapest) and Helmut Duddeck (Bochum)



**POLYMERIC DICARBONYL RUTHENIUM(II) ACETATE - AN EFFICIENT
CATALYST FOR ALKENE CYCLOPROPANATION WITH DIAZOACETATES**

Gerhard Maas*, Thorsten Werle, Mechthild Alt, Dieter Mayer, Fachbereich Chemie,
Universität Kaiserslautern, Erwin-Schrödinger-Straße, D-6750 Kaiserslautern, FRG

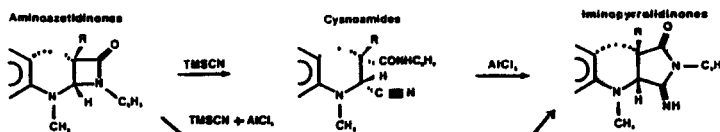
Cyclopropanation of various alkenes with methyl diazoacetate or methyl diazo(trimethylsilyl)acetate is catalyzed efficiently by 1



**RING EXPANSION OF SOME 4-AMINOAZETIDIN-2-ONES
INTO 4-AMINO-5-IMINOPYRROLIDIN-2-ONES.**

C. NISOLE, P. URIAC, L. TOUPET*, J. HUET

Université de Rennes I : Laboratoire de Chimie Pharmaceutique, Av. Pr. Léon
Bernard, F.35043 Rennes Cedex . b) Laboratoire de Physique Cristalline, Campus de
Beaulieu, F.35042 Rennes Cedex .

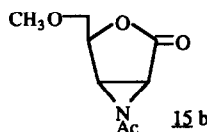
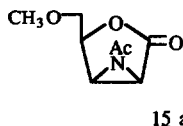


STEREOCONTROLLED SYNTHESIS OF AZIRIDINE-2-LACTONES FROM D-RIBOSE AND D-LYXOSE.

Laurent Dubois and Robert H Dodd*

Institut de Chimie des Substances Naturelles, C N R S , 91198 Gif-sur-Yvette, France

The preparation of optically pure aziridine-2-lactones **15a** and **15b**, cyclic analogues of the synthetically useful aziridine-2-carboxylates, from D-ribose and D-lyxose, respectively, is described



OXIDATIVE DEGRADATION OF β -CAROTENE AND β -APO-8'-CAROTENAL

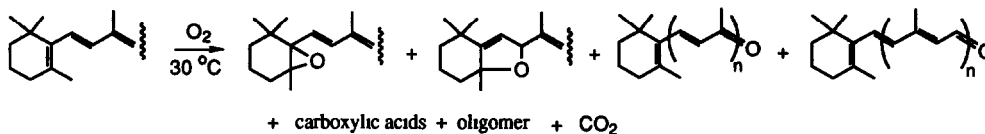
Raphael C Mordi, John C Walton*

University of St Andrews, Department of Chemistry, St Andrews, Fife, KY16 9ST

Graham W Burton*, Lise Hughes, Keith U Ingold, David A Lindsay, Douglas J Moffatt

Steele Institute for Molecular Sciences, National Research Council of Canada, Ottawa, Canada, KIA 0R6

Autoxidation of β -carotene and β -apo-8'-carotenal gave epoxides, dihydrofurans, methylketones, aldehydes, carboxylic acids, carbon dioxide and oligomeric material. Mechanisms are suggested for formation of these products



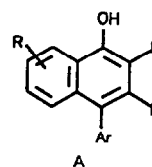
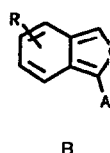
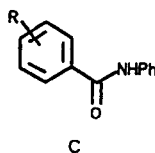
APPLICATION OF ORGANOLITHIUM AND RELATED REAGENTS IN SYNTHESIS PART 13 SYNTHETIC STRATEGIES BASED ON AROMATIC METALLATION A CONCISE REGIOSPECIFIC CONVERSION OF BENZOIC ACIDS INTO 4-HYDROXY-1-ARYLNAPHTHALENES

J Epsztajn*, A Jóźwiak* and A K Szcześniak

Department of Organic Chemistry,

University of Łódź, 90-136 Łódź, Poland

Regiospecific transformation of the benzanilides (**C**) via isobenzofurans (**B**) into 4-hydroxy-1-arylnaphthalenes (**A**), was developed

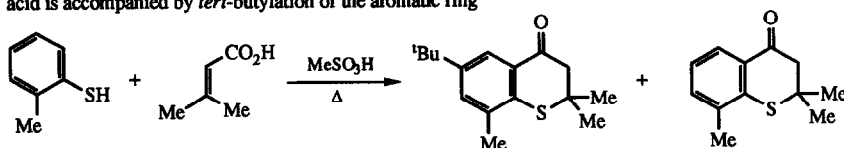


DIRECT AROMATIC *tert*-BUTYLATION DURING THE SYNTHESIS OF THIOCHROMAN-4-ONES

Stephen E Clayton, Christopher D Gabbutt, John D Hepworth and B Mark Heron

Department of Chemistry, University of Central Lancashire, Preston, PR1 2HE, England

The synthesis of thiochroman-4-ones from thiophenols and 3-methylbut-2-enoic acid effected by methanesulphonic acid is accompanied by *tert*-butylation of the aromatic ring



STERIC EFFECTS IN INTRAMOLECULAR [2+2]

PHOTOCYCLOADDITION OF C=C DOUBLE BONDS TO CYCLOHEXENONES.

D Becker* and N Haddad

Dept. of Chemistry, Technion-Israel Institute of Technology, Technion City, Haifa, 32000, Israel

The effect of substituents on the mode of approach of E or Z olefins and the endo/exo ratio in intramolecular [2+2] photocycloaddition were studied

R = Bu^t, Me
R' = H, Me, D

