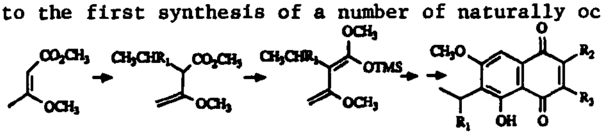
GRAPHICAL ABSTRACTS

Tetrahedron, **1991**, *47*, 4287

REGIOSPECIFIC α-SUBSTITUTION OF CROTONIC ESTERS. SYNTHESIS OF NATURALLY OCCURRING DERIVATIVES OF 6-ETHYLJUGLONE

Brigitte Caron and Paul Brassard*,
Département de chimie, Université Laval, Québec, Canada G1K 7P4

The regiospecific alkylation of a β-methoxycrotonate has led, through the corresponding diene, to the first synthesis of a number of naturally occurring juglones.

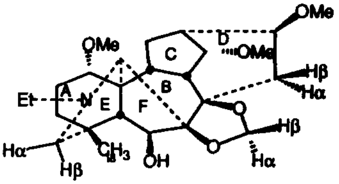


Tetrahedron, **1991**, *47*, 4299

PROTON AND CARBON-13 NMR STUDIES OF DELPHELINE, 8,9-METHYLENEDIOXYLAPPACONITINE AND DICTYZINE

Balawant S Joshi[a] and S W Pelletier[a], Xiaolin Zhang[b] and John K Snyder[b]
[a]Institute for natural Products Research & The School of Chemical Sciences, University of Georgia, Athens, GA 30602, U S A , [b]Department of Chemistry, Boston University, Boston, MA 02215, U S.A

Unambiguous proton and carbon-13 nmr assignments for the title norditerpenoid alkaloids were made by analysis of DEPT, COSY, fixed evolution HETCOR, NOESY and selective INEPT techniques This work corrects previous assignments for these alkaloids



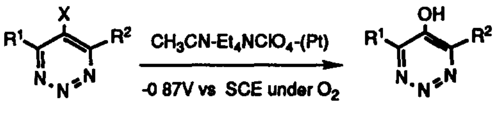
1 Delpheline

Tetrahedron, **1991**, *47*, 4317

THE SUBSTITUTION OF 5-HALO-1,2,3-TRIAZINES WITH ELECTROLYTICALLY GENERATED SUPEROXIDE

Takashi Itoh, Kazuhiro Nagata, Mamiko Okada, Hiroyuki Takahashi, and Akio Ohsawa*
School of Pharmaceutical Sciences, Showa University, Hatanodai, Shinagawa-ku, Tokyo 142, Japan

Electrolytically generated superoxide reacted with 5-halo-1,2,3-triazines 1 to afford 5-hydroxy-1,2,3-triazines 2 The reaction mechanism was investigated with electrochemical methods



1

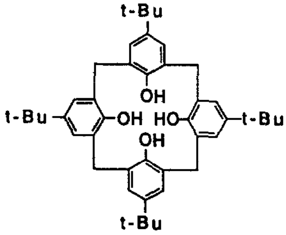
2

Tetrahedron, **1991**, *47*, 4325

SYNTHESIS OF ALL POSSIBLE CONFORMATIONAL ISOMERS OF O-ALKYL-p-t-BUTYLCALIX[4]ARENES

Koji Iwamoto, Koji Araki, and Seiji Shinkai
Department of Organic Synthesis, Faculty of Engineering, Kyushu University, Fukuoka 812, Japan

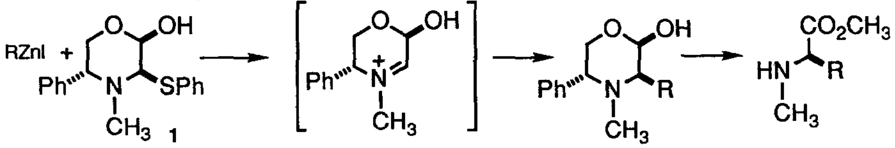
All possible conformational isomers of p-t-butylcalix[4]arene and its mono-, di-, tri-, and tetra-O-propyl derivatives have been synthesized by using a protection-deprotection method with a benzyl group and metal template effects.



Tetrahedron, **1991**, *47*, 4343

ASYMMETRIC SYNTHESIS OF N-METHYL-α-AMINO ESTERS FROM A GLYOXAL DERIVED CHIRAL HETEROCYCLE

C. AGAMI,* F. COUTY, B. PRINCE and C. PUCHOT
Laboratoire de Chimie Organique (URA CNRS 408), Université P. et M. Curie, 4 place Jussieu, 75005 Paris, France.

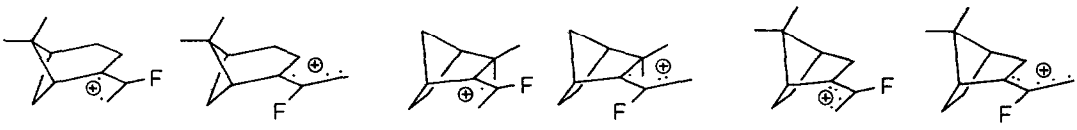


Condensation of synthon **1** with organozinc halides, ultimately leading to N-methyl-α-amino esters, proceeds with complete retention.

Tetrahedron, **1991**, *47*, 4355

IN THE BLIND SPOT OF DIFFUSION CONTROL : 2-FLUOROALLYL CATIONS AND THEIR VARIOUS POSSIBILITIES FOR STABILIZATION

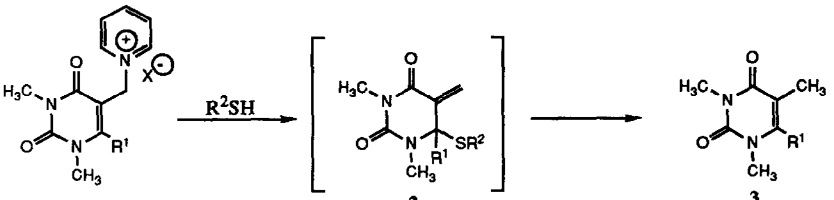
Yvonne BESSIERE, Yves BESSARD, Takayuki KOTANI and Manfred SCHLOSSER*
Institut de Chimie organique, Université de Lausanne, Switzerland



Tetrahedron, **1991**, *47*, 4361

REDUCTION OF 5-URACILYLMETHYLENEPYRIDINIUM SALTS BY THIOLS A MODEL OF THE REDUCTION STEP OF THE THYMIDYLATE SYNTHASE REACTION

E Vega, G A Rood, E.R de Waard and U K Pandit*, University of Amsterdam, (The Netherlands)



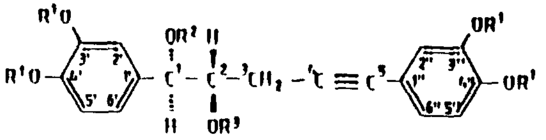
1 2 3

Tetrahedron, **1991**, *47*, 4369

RESEARCH ON AFRICAN MEDICINAL PLANTS -XXV- THE (1R,2S) ABSOLUTE CONFIGURATION OF NYASICOSIDE. ITS OCCURRENCE IN CURCULIGO RECURVATA

Kusamba Chifundera[a], I Messana[b],C Galeffi[c],*,Y.De Vicente[c];[a]Centre Recherche en Science Naturelles,(Zaire),[b]Università Cattolica,(Italy),[c]Istituto Superiore di Sanità,(Italy).

The (R) configuration at C-1 of nyasicoside and its derivatives was assigned by comparison of the Cotton effect with those of optically active phenylcarbinols, whereas the (S) configuration at C-2 was assigned by the application of the CD exciton chirality method for the diol bis p-bromobenzoates



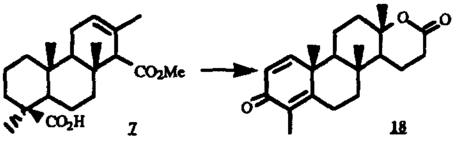
R^1	R^2	R^3
H	H	β-D-glucose

Tetrahedron, **1991**, *47*, 4375

SYNTHESIS OF (-) 4,8β-DIMETHYL TESTOLACTONE FROM (+) O-15-METHYL ISOAGATHATE

A Fernández Mateos*, O Ferrero Barrueco, J de Pascual Teresa, and R. Rubio González.
Dpto Química Orgánica, Facultad de C Químicas, Plaza de los Caidos 1-5, 37008 Salamanca, Spain

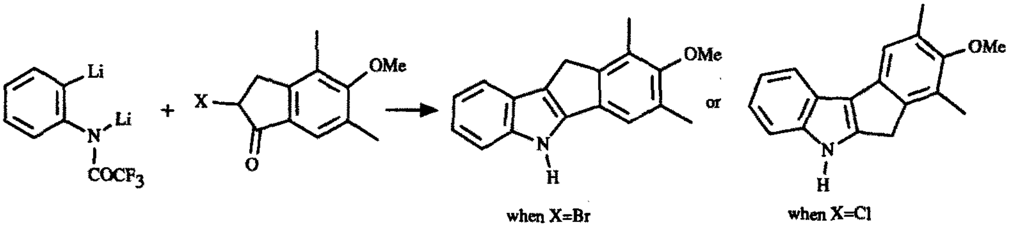
The stereoselective synthesis of (-) 4,8β-dimethyl testolactone **18** from (+) O-15-methyl isoagathate **7** has been carried out in a nine-step process with a good overall yield



Tetrahedron, **1991**, *47*, 4383

NEW ANTIOXIDANTS INCORPORATING INDOLE AND INDOLINE CHROMOPHORES

D.W.Brown[a], P.R.Graupner[a], *M.Sainsbury[a] and H.G.Shertzer[b]; [a]School of Chemistry, University of Bath, Claverton Down, Bath BA2 7AY, England; [b]Department of Environmental Health, University of Cincinnati, 3223, Eden Avenue, Cincinnati, Ohio, 45267-0056, U.S.A.

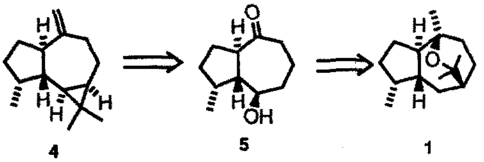


Tetrahedron, **1991**, *47*, 4409

THE SYNTHESIS OF (-)-KESSANE, STARTING FROM NATURAL (+)-AROMADENDRENE-II[1]

Henricus J.M. Gijsen, Joannes B.P.A. Wijnberg*, Gerrit A. Stork and Aede de Groot*
Laboratory of Organic Chemistry, Agricultural University,
Dreijenplein 8, 6703 HB Wageningen, The Netherlands.

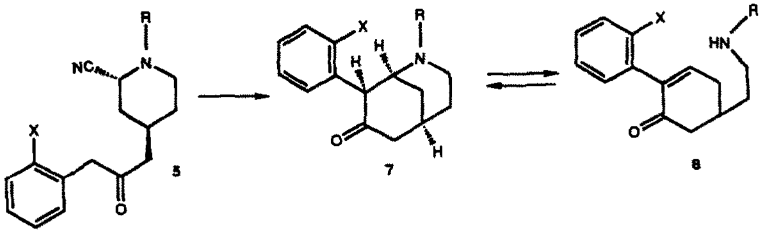
Abstract: Starting from the chiral synthon **5**, readily available from natural (+)-aromadendrene (**4**)[1], the sesquiterpene (–)-kessane (**1**) can be synthesized in a 9 steps reaction sequence in an overall yield of 43%.



Tetrahedron, **1991**, *47*, 4417

8-ARYL-2-AZABICYCLO[3.3.1]NONAN-7-ONES. SYNTHESIS AND RETRO-MICHAEL RING OPENING

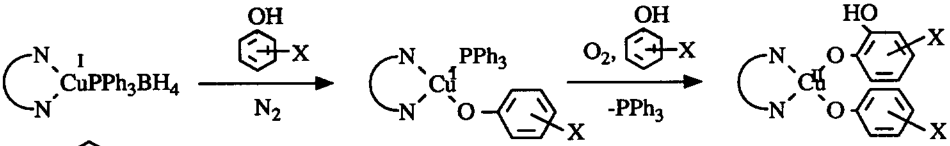
Josep Bonjoch*, Josefina Quirante, Daniel Solé, Josep Castells, Montserrat Galceran, and Joan Bosch
Laboratory of Organic Chemistry, Faculty of Pharmacy, University of Barcelona, 08028-Barcelona, Spain

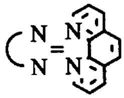


Tetrahedron, **1991**, *47*, 4429

SELECTIVE ORTHO-HYDROXYLATION OF PHENOLS IN COPPER(I) COMPLEXES

F Chioccara[a], P Di Gennaro[c], G La Monica[b], R Sebastiano[b] and B Rindone[c], [a]Università di Napoli, [b,c]Università di Milano





Several catechols are obtained by reacting excess of the corresponding phenols with a tetrahydroborate copper(I) complex and subsequent oxidation of the intermediate copper(I)phenoxo complex

---

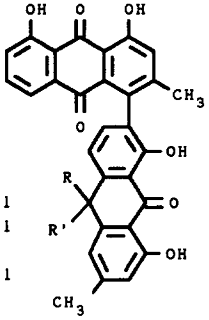
Tetrahedron, **1991**, *47*, 4435

A NEW CLASS OF ANTHRAQUINONE-ANTHRONE C-GLYCOSIDES FROM ASPHODELUS RAMOSUS TUBERS

M.Adinolfi,# R.Lanzetta,# C.E.Marciano,# M.Parrilli,# A De Giulio@
#Università di Napoli, Italy, @CNR, Arco Felice, Italy

The isolation and the structure determination of six new 7'-(chrysophanol-4-yl)-chrysophanol-10'-anthrone 10'-C-glycosides 1-6 are reported

1 R = H, R' = C-α-rhamnopyranosyl
2 R = H, R' = C-β-xylopyranosyl
3 R = H, R' = C-β-antiaropyranosyl
4 R = H, R' = C-α-arabinopyranosyl
5 R = C-β-xylopyranosyl, R' = H
6 R = H, R' = C-β-quinovopyranosyl

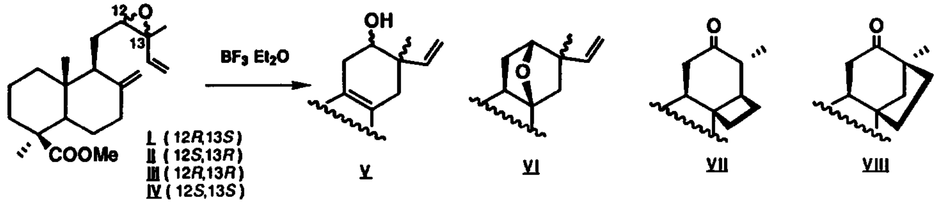


Tetrahedron, **1991**, *47*, 4441

BIOMIMETIC SYNTHESIS OF 12-OXY-PIMARANES FROM 12,13-EPOXY-LABDADIENES

Alejandro F Barrero*, Rafael Quintana, M and Joaquín Altarejos C
Departamento de Química Orgánica Facultad de Ciencias Universidad de Granada 18071 GRANADA (Spain)

Reactions of methyl 12 13-epoxy-communates (I-IV) with BF_3 Et_2O at 0°C mainly yielded C 12 oxygenated pimaranes (V, VI) besides two tetracyclic ketones (VII, VIII), in a stereoselective and stereospecific manner

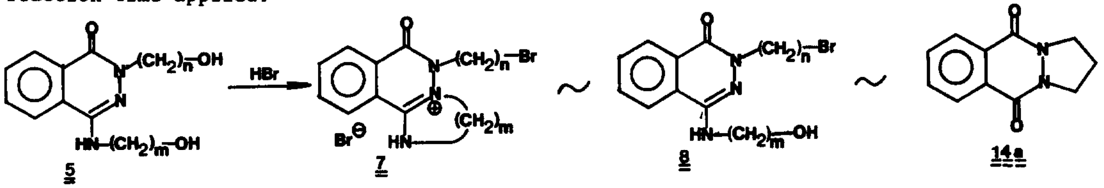


Tetrahedron, **1991**, *47*, 4457

CHAIN LENGTH DEPENDENT REACTIVITY OF 2-(ω-HYDROXYALKYL)-4-(ω'-HYDROXYALKYLAMINO)PHTHALAZIN-1(2H)-ONES IN AZEOTROPIC HYDROBROMIC ACID

A. Csámpai, +K. Körmendy and F. Ruff
Inst. Org. Chem. Eötvös University, H-1518 Budapest 112, POB 32

Bis-hydroxyalkyl compounds of type 5 were converted into bromo compounds of types 7 and 8 or into the dione 14a. Reactions are controlled by the length of the side chains and the reaction time applied.

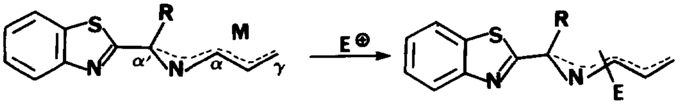


Tetrahedron, **1991**, *47*, 4465

ON THE COUPLING REACTION OF 1-BENZOTHIAZOLYL-2-AZA-PENTADIENYL METALS WITH C-ELECTROPHILES

Erbana Epifani,[a] Saverio Florio,[b*] Daniela Perrone[a] and Giovanni Valle[c]
a) Dip. di Biologia, Univ. di Lecce, Italy. b) Dip. Farmaco-Chimico, Fac. di Farmacia, Univ. di Bari, Traversa 200 Re David 4, Bari, Italy.
c) Centro di Studio sui Biopolimeri, Univ. di Padova, Italy.

The coupling of benzothiazolyl aza-pentadienyl metals 3 has been investigated:



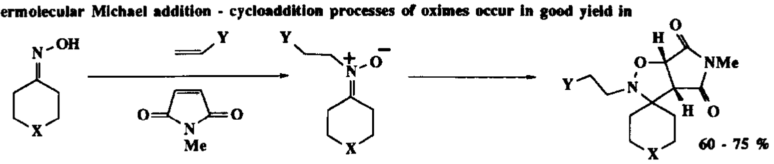
Tetrahedron, **1991**, *47*, 4477

X=Y ZH SYSTEMS AS POTENTIAL 1,3 DIPOLES PART 32 GENERATION OF NITRONES FROM OXIMES TANDEM MICHAEL ADDITION 1,3 DIPOLAR CYCLOADDITION REACTIONS BACKGROUND AND CLASS 1 PROCESSES

Ronald Grigg,[a] Frances Heaney,[b] Sivagnanasundram Surendrakumar [a] and William J Warnock [b]
(a) School of Chemistry, Leeds University, Leeds LS2 9JT (b) Chemistry Department, Queens University, Belfast BT9 5AG, Northern Ireland

Chemospecific intermolecular Michael addition - cycloaddition processes of oximes occur in good yield in boiling acetonitrile

X = NAc or CH_2
Y = COMe, SO_2Ph, CO_2CH_2Ph



Tetrahedron, **1991**, *47*, 4495

X=Y-ZH SYSTEMS AS POTENTIAL 1,3-DIPOLES PART 33 GENERATION OF NITRONES FROM OXIMES TANDEM MICHAEL ADDITION - 1,3-DIPOLAR CYCLOADDITION REACTIONS CLASS 2 PROCESSES IN WHICH THE DIPOLAROPHILE IS LOCATED WITHIN THE OXIME.

Paul Armstrong,[a] Ronald Grigg,[b] Frances Heaney,[a] Sivagnanasundram Surendrakumar[b] and William J Warnock[a]
a Chemistry Department, Queens University, Belfast BT9 5AG b School of Chemistry, Leeds University, Leeds LS2 9JT

C-3, -4, -5 and -6-Alkenyl oximes react with electronegative olefins to give C-alkenyl nitrones which undergo intramolecular cycloaddition reactions in good yield.