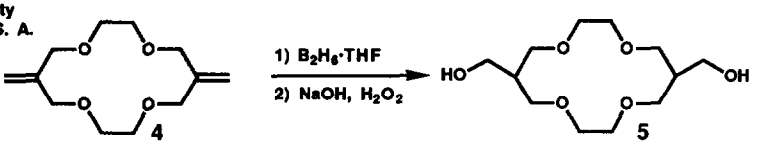
Tetrahedron, **1991**, *47*, 2947

SYN-BISHYDROXYMETHYL-14-CROWN-4: A POSSIBLE PRE-ORGANIZED MOLECULE FOR SIMULTANEOUS LITHIUM COMPLEXATION AND ANION SOLVATION

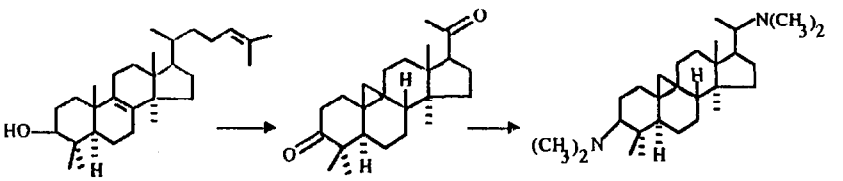
U. Olsher, K. E. Krakowiak, N. K. Dalley and J. S. Bradshaw
Brigham Young University
Provo, Utah 84602 U. S. A.



Tetrahedron, **1991**, *47*, 2957

BUXUS ALKALOIDS. PART XI. THE SYNTHESIS OF CYCLOPROTOBUXINE-A (3β,20*S*-CHIRALITY) AND ITS TWO ISOMERIC ALKALOIDS WITH 3β,20*R*- AND 3α,20*R*-CONFIGURATION FROM LANOSTEROL

Tatsuhiko Nakano,* Alfonso Martín, and Miguel Alonso
Centro de Química, Instituto Venezolano de Investigaciones Científicas (I.V.I.C.), Apartado 21827, Caracas 1020-A, Venezuela.

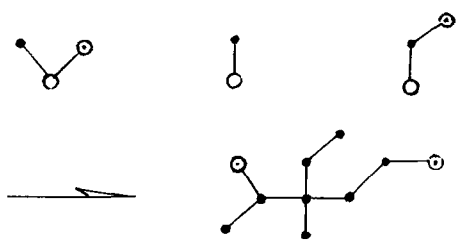


d-Cycloprotobuxine-A (3β,20*S*)
l-Cycloprotobuxine-A (3β,20*R*)
l-Cycloprotobuxine-A (3α,20*R*)

Tetrahedron, **1991**, *47*, 2969

THE NUMBERS OF CONSTITUTIONS, CONFIGURATIONS, CHIRAL AND ACHIRAL CONFIGURATIONS OF POLYHALOALKANES $C_nH_{2n+2-i}X_i$

Jianji Wang, Qiang Wang
Department of Chemistry, Inner Mongolia Normal University, Huhehaote, 010022, China



Root trees:
⊙ : Chorine atom
• : Carbon atom
○: Root

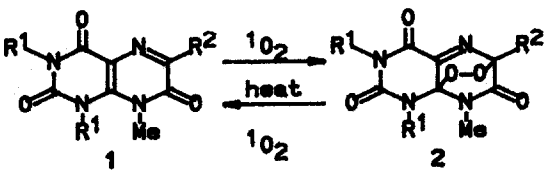
A tree containing two different kinds of points

Tetrahedron, **1991**, *47*, 2979

PHOTOOXYGENATION OF PTERIDIN-2,4,7-TRIONES

T. Nishio,* T.Nishiyama, and Y.Omote
Department of Chemistry, University of Tsukuba, Tsukuba-shi, Ibaraki 305, Japan

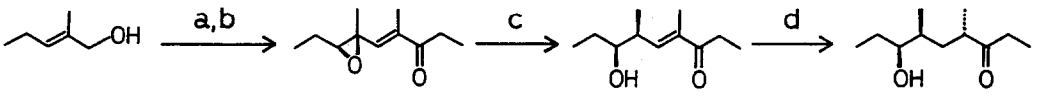
The pteridin-2,4,7-triones (**1**) reacted with singlet oxygen to yield the pteridin-2,4,7-trione 6,8-endoperoxides (**2**), which on warming reverts to **1** with concomitant formation of $^1O_2$.



Tetrahedron, **1991**, *47*, 2991

Facile Synthesis of (-)-Serricornin by Means of Palladium-Catalyzed Hydrogenolysis of Alkenyloxiranes

Isao SHIMIZU,* Kaoruko HAYASHI, Nobuyuki IDE, and Masato OSHIMA
Department of Applied Chemistry, School of Science and Engineering, Waseda University, Shinjuku-ku, Tokyo 169, Japan



(-)-Serricornin

[a]$Ti(O^iPr)_4$, (+)-DET, ^{t}BuOOH, CH_2Cl_2, 78%. [b]$(COCl)_2$, DMSO, Et_3N, CH_2Cl_2, -78°C; $(Ph_3P)_3P{=}CH(CH_3)COCH_2CH_3$, THF, 48%. [c]$Pd_2(dba)_3CHCl_3$, $(MeO)_3P$, HCO_2H, Et_3N, dioxane, 48%. [d]H_2, Pd/C, MeOH, 83%; *p*-TsOH, THF-H_2O, 50°C, 83%.

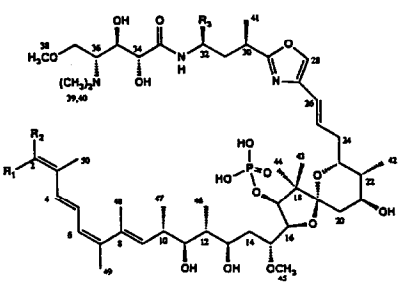
Tetrahedron, **1991**, *47*, 2999

CALYCULINS E, F, G, AND H, ADDITIONAL INHIBITORS OF PROTEIN PHOSPHATASES 1 AND 2A, FROM THE MARINE SPONGE *DISCODERMIA CALYX*

Shigeki Matsunaga,[1] Hirota Fujiki,[1] Daisuke Sakata,[1] and Nobuhiro Fusetani[2]*

[1]Cancer Prevention Division, National Cancer Center Research Institute, Tsukiji, Chuo-ku, Tokyo 104, JAPAN
[2]Laboratory of Marine Biochemistry, Faculty of Agriculture, The University of Tokyo, Bunkyo-ku, Tokyo 113, JAPAN

	R_1	R_2	R_3
5:	CN	H	H
6:	H	CN	H
7:	CN	H	CH_3
8:	H	CN	CH_3



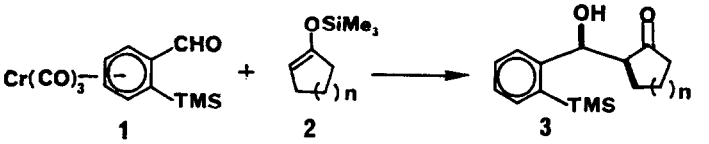
The isolation and structure elucidaion of novel inhibitors for protein phosphatases 1 and 2A, calyculins E-H (**5-8**), from the marine sponge *Discodermia calyx*, were reported.

Tetrahedron, **1991**, *47*, 3007

ASYMMETRIC ALDOL REACTION: A HIGHLY ERYTHRO-SELECTIVE ALDOL REACTION BETWEEN TRICARBONYL(o-TRIMETHYLSILYLBENZALDEHYDE DERIVATIVE)CHROMIUM(0) COMPLEXES AND CYCLIC SILYL ENOL ETHERS

C. Mukai, W.-J. Cho, I.-J. Kim, M. Kido, and M. Hanaoka, Faculty of Pharmaceutical Sciences, Kanazawa University, Kanazawa 920 Japan

Reaction of (±)-1 with 2 afforded the erythro isomer (3) selectively. This aldol reaction was successfully applied to the asymmetric one.

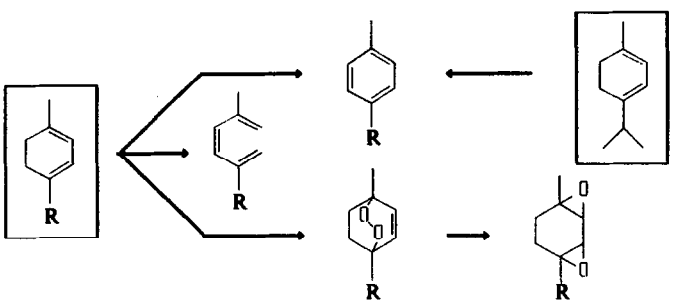


1 2 3

Tetrahedron, **1991**, *47*, 3037

PHOTOCHEMICAL REACTIONS OF P-MENTHA-1,3,8-TRIENE AND STRUCTURAL RELATED P-MENTHADIENES

Martin H. Spraul, Siegfried Nitz and Friedrich Drawert
Institut für Lebensmitteltechnologie und analytische Chemie der T.U.M., 8050 Freising, FRG



The photochemical and thermal behaviour of cyclic olefins with p-mentha-1,3- and -1,4-dienic skeleton under the influence of oxygen have been investigated. The mechanism of the aromatization reaction will be discussed in the paper.

	R
a	$-CH(CH_3)_2$
b	$-C(=CH_2)-CH_3$

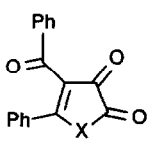
Tetrahedron, **1991**, *47*, 3045

PHOTOCHEMICAL AND THERMAL 2+2-CYCLOADDITIONS OF DIPHENYLKETENE AND DIPHENYLKETEN-N-(4-METHYL-PHENYL)-IMINE TO FIVE-MEMBERED HETEROCYCLIC 2,3-DIONES

Ewald Terpetschnig, Gerhard Penn, Gert Kollenz*, Karl Peters, Eva-Maria Peters and Hans Georg von Schnering

Institute of Organic Chemistry, University of Graz, Heinrichstraße 28, A-8010 Graz, Austria
Max-Planck-Institut für Festkörperforschung, Heisenbergstraße 1, D-7000 Stuttgart 80, FRG

The heterocyclic 2,3-diones **1** - **3** have been found to undergo photochemical and thermal 2+2-cycloaddition reactions via their 3-carbonyl group to diphenylketene and the diphenylketen-N-(4-methyl-phenyl)-imine. These reactions afford rearranged cycloadducts as well as 2+2-cycloreversion products.

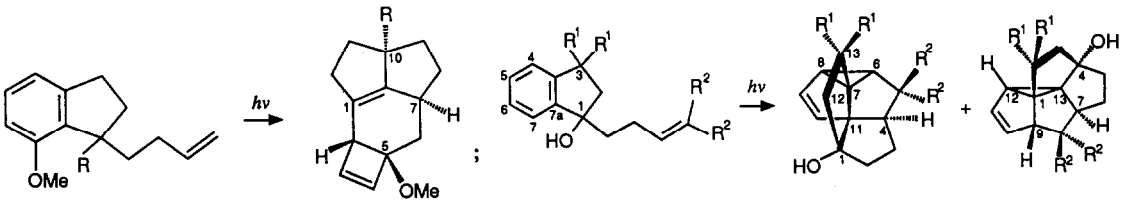


1	X = O
2a	X = N-Ph
2b	X = N-Tol(p)
3	X = S

Tetrahedron, **1991**, *47*, 3059

Photochemistry of Substituted 1-(But-3-enyl)-indanes

Cong Zhang, Daniel Bourgin, Reinhart Keese*
Institut für organische Chemie, Universität Bern, CH-3012, Bern, Switzerland

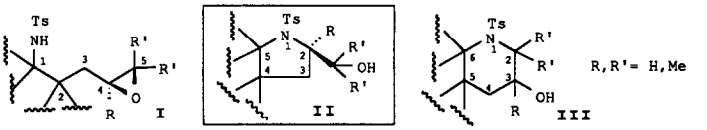


Tetrahedron, **1991**, *47*, 3075

CYCLISATION DE *N*-TOSYL OXIRANES-PROPYLAMINES: SYNTHESE D'HETEROCYCLES AZOTES.

A. Nuhrich [1] & J. Moulines [2] ([1] Laboratoire de Chimie Thérapeutique, Université de Bordeaux II, 33076 Bordeaux. [2] Laboratoire de Chimie Appliquée, Université de Bordeaux I, 33405 Talence. -France-)

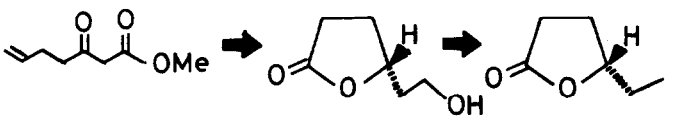
Les *N*-tosyl oxiranes-propylamines (I) se cyclisent en milieu acide ou basique le plus souvent selon le mode 5-*exo* pour donner des *N*-tosyl pyrrolidines-2-méthanols (II); la formation des *N*-tosyl pipéridin-3-ols (III) n'est observée que dans des cas particuliers. La cyclisation s'accompagne de l'inversion de configuration du carbone époxydique attaqué.



Tetrahedron, **1991**, *47*, 3089

A CHEMOENZYMATIC APPROACH TO (R)-TETRAHYDRO-5-OXO-2-(2-HYDROXYETHYL)FURAN, A USEFUL CHIRAL SYNTHON: APPLICATION TO THE SYNTHESIS OF (S)-4-HEXANOLIDE, PHEROMONE ANTIPODE OF TROGODERMA GLABRUM.

S.K.Ghosh, S.Chattopadhyay and V.R.Hamdapur*.
Bio-Organic Division,
Bhabha Atomic Research Centre,
Bombay-400 085, India.



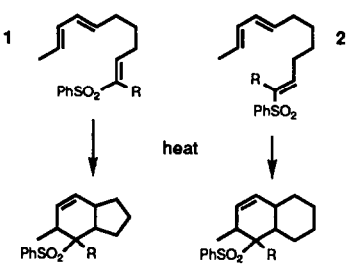
Tetrahedron, **1991**, *47*, 3095

INTRAMOLECULAR DIELS-ALDER REACTIONS OF SULPHONYL-SUBSTITUTED TRIENES

Donald Craig*, Doris A. Fischer, Öznur Kemal, Andrew Marsh, Thomas Plessner, Alexandra M. Z. Slawin, and David J. Williams

Department of Chemistry, Imperial College of Science, Technology and Medicine, London SW7 2AY, U.K.

The thermal intramolecular Diels-Alder reactions of novel *E, E, E* -sulphonyl-substituted trienes **1** and **2** (R = H, Me) and the corresponding *Z, E, E* -isomers are described. The stereoselectivities of the reactions are discussed, and some methylation reactions of the bicyclic products are reported.

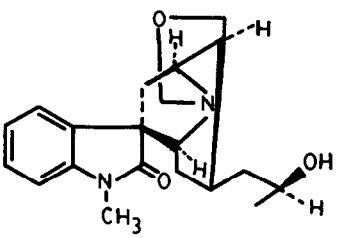


Tetrahedron, **1991**, *47*, 3129

MACROXINE – A NOVEL OXINDOLE ALKALOID FROM ALSTONIA MACROPHYLLA

Atta-ur-Rahman[1], F. Nighat[1], A. Nelofer, K. Zaman, M.I. Choudhary and K.T.D. De Silva[2]
[1]H.E.J. Research Institute of Chemistry University of Karachi, Pakistan, [2]University of Sri Jayawardenepura, Nugegoda, Sri Lanka

A novel oxindole alkaloid macroxine has been isolated and its structure was determined by 1D and 2D NMR experiments including inverse experiments (HMQC and HMBC)

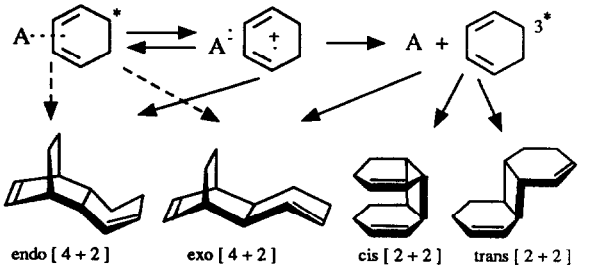


Tetrahedron, **1991**, *47*, 3137

THE PHOTOSENSITIZED DIMERIZATION OF 1,3-CYCLOHEXADIENE

M.Mella, E.Fasani and A.Albini, Dip. Chimica Organica, Universitá, V. Taramelli 10, 27100 Pavia.

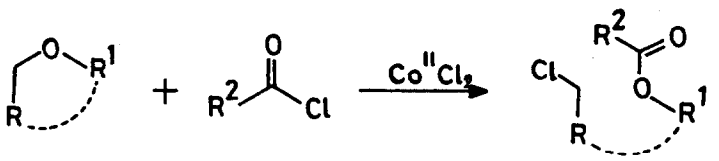
An extended study of donor concentration and salt effect on the CHD sensitized dimerization identifies exciplex and ion pair in equilibrium as intermediates for 4+2 dimerization, as well as for *isc* to CHD triplet.



Tetrahedron, **1991**, *47*, 3155

COBALT(II) CHLORIDE CATALYSED CLEAVAGE OF ETHERS WITH ACYL HALIDES : SCOPE AND MECHANISM

Javed Iqbal* and Rajiv Ranjan Srivastava
Department of Chemistry, Indian Institute of Technology, Kanpur, India

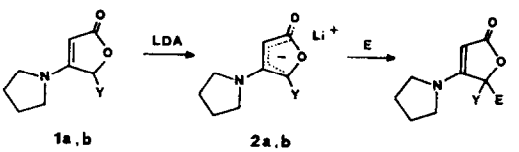


Tetrahedron, **1991**, *47*, 3171

PSEUDOESTERS AND DERIVATIVES. XXX[1].SYNTHESIS OF 5-SUBSTITUTED FURAN-2(5*H*)-ONES BY THE REGIOSPECIFIC REACTION OF ANIONS OF ENAMINOFURANONES WITH ELECTROPHILES

Begoña de Ancos[a], Francisco Fariña[b*], M. Carmen Maestro[a], M. Rosario Martín[a*] and M. Mercedes Vicioso[a]
[a]*Departamento de Química C-I, Facultad de Ciencias, Universidad Autónoma de Madrid, Cantoblanco, 28049 Madrid, Spain, and* [b]*Instituto de Química Orgánica General C.S.I.C., Juan de la Cierva,3, 28006, Madrid, Spain.*

Reaction of **2a,b** (**a**, Y=OMe, **b**, Y=SEt) with electrophiles (E= RX, RCHO, PhNCO, RCOCl, Me_3SiCl) affords the 5-substituted derivative in a regiospecific manner.



Tetrahedron, **1991**, *47*, 3183

SOLUTION STRUCTURE OF PENTAMERIC AND HEPTAMERIC BRANCHED-RNA MODELLING THE LARIAT STRUCTURE OF GROUP II OR NUCLEAR m-RNA INTRONS STUDIED BY ONE- AND TWO-DIMENSIONAL NMR SPECTROSCOPY AT 500 MHz

L. H. Koole, P. Agback, C. Glemarec, X.-X. Zhou and J. Chattopadhyaya*
Department of Bioorganic Chemistry, Box 581, Biomedical Center, University of Uppsala, S-751 23 Uppsala, Sweden

Detailed 500 MHz ^{1}H-NMR study has shown that the conformational features of the branched RNA-pentamer resemble those of the branched RNA-trimer, while the structure of the branched RNA-tetramer mimics closely that of the RNA-heptamer.