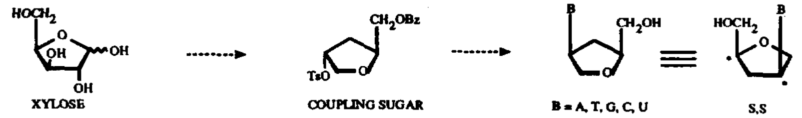
GRAPHICAL ABSTRACTS

Tetrahedron, **1994**, *50*, 7747

NOVEL ISOMERIC DIDEOXYNUCLEOSIDES AS POTENTIAL ANTIVIRAL AGENTS

Pascal J. Bolon, Todd B. Sells, Zoraida M. Nuesca, David F. Purdy and Vasu Nair*
Department of Chemistry, The University of Iowa, Iowa City, Iowa 52242

Synthesis of novel isomeric dideoxynucleosides with *S,S* absolute stereochemistry involving the transposition of the base moiety. Structure confirmation by total synthesis, selective INEPT NMR, and X-ray diffraction.

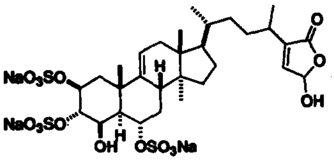


Tetrahedron, **1994**, *50*, 7765

Topsentiasterol Sulfates, Antimicrobial Novel Sterol Sulfates, Possessing Novel Side Chains, from a Marine Sponge *Topsentia* sp.

Nobuhiro Fusetani,* Motohiko Takahashi, and Shigeki Matsunaga
Laboratory of Marine Biochemistry,
Faculty of Agriculture,
The University of Tokyo
Bunkyo-ku, Tokyo 113, Japan

Isolation and structure elucidation of five novel steroids sulfates are reported.

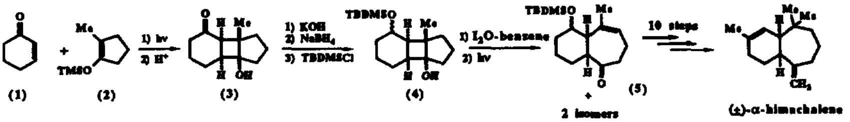


Topsentiasterol sulfate A

Tetrahedron, **1994**, *50*, 7771

Photoinduced Molecular Transformations. Part 150.
A New Total Synthesis of (±)-α-Himachalene based on a Sequence involving [2+2] Photoaddition and Regioselective β-Scission of Alkoxyl Radicals generated from the Resulting Cyclobutanols

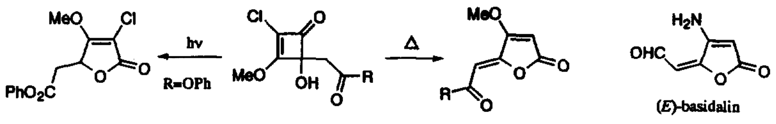
Hiroshi Suginome* and Yutaka Nakayama
Organic Synthesis Division, Faculty of Engineering, Hokkaido University, Sapporo 060, Japan



Tetrahedron, **1994**, *50*, 7783

Ring Transformation of 4-Acylmethyl-2-chloro-4-hydroxy-2-cyclobutenone to γ-Acylmethylenetetronate by Thermal Rearrangement: New Synthetic Aspect of Squaric Acid as a C_4-Synthon

Yoshihiko Yamamoto, Masatomi Ohno, and Shoji Eguchi
Institute of Applied Organic Chemistry, Faculty of Engineering, Nagoya University, Chikusa, Nagoya 464-01, Japan



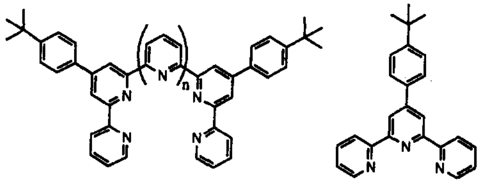
Title cyclobutenones were converted thermally to the corresponding (*Z*)-γ-acylmethylenetetronates. The mechanism, application of this novel rearrangement to synthesis of (*E*)-basidalin and related photolysis were described.

Tetrahedron, **1994**, *50*, 7799

4-*tert*-BUTYLPHENYL SOLUBILIZED OLIGOPYRIDINES

Edwin C. Constable*, Peter Harverson, Diane R. Smith and Louise A. Whall.
Institut für Anorganische Chemie, Universität Basel, Spitalstrasse 51, CH-4056 Basel, Switzerland

A new series of ligands in with 4-(*tert*-butylphenyl) solubilizing groups has been prepared.

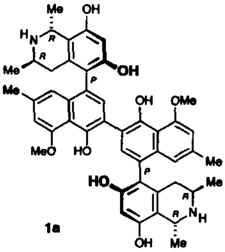


Tetrahedron, **1994**, *50*, 7807

Circular Dichroism of Michellamines: Independent Assignment of Axial Chirality by Calculated and Experimental CD Spectra

G. Bringmann*[a], K.–P. Gulden[a], Y.F. Hallock[b], K.P. Manfredi[b], J.H. Cardellina II[b], M.R. Boyd[b], B. Kramer[c], J. Fleischhauer[c]
[a]Institut für Organische Chemie, Universität Würzburg, Am Hubland, 97074 Würzburg, Germany
[b]Laboratory of Drug Discovery Research and Development, NCI, Building 1052, Room 121, Frederick, MD 21702–1201, USA
[c]Lehr– und Forschungsgebiet Theoretische Chemie, RWTH Aachen, Prof. Pirlet Str. 1, 52074 Aachen, Germany

The absolute axial configurations of michellamines such as **1a** were determined by comparison of their experimental CD spectra with the calculated ones of the (as yet unknown) corresponding monomeric naphthylisoquinoline alkaloids.



1a

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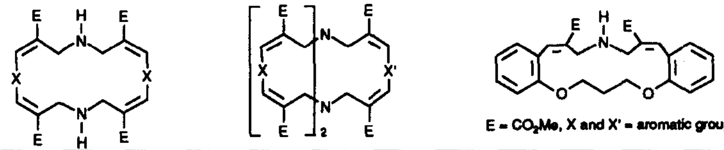
SYNTHESIS AND STRUCTURAL FEATURES OF NEW [5,7] ORTHOCYCLOPHANES, [7,7] CYCLOPHANES AND CORRESPONDING MACROBICYCLIC CRYPTOPHANES.

P. Bauchat[a], N. Le Bras[a], L. Rigal[b], A. Foucaud*[a]
[a] *Groupe de Chimie Structurale, associé au CNRS, Université de Rennes, France.*
[b] *Laboratoire de Chimie Agroindustrielle, ENSC, Toulouse, France.*

The present report describes the synthesis of cyclophanes and cryptophanes.



$E = CO_2Me$, X and X' = aromatic groups.

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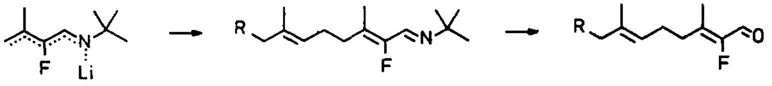
A Fluoroisoprenylation Sequence Employing 2-Fluoroalkenal Derived Azomethines as Key Intermediates : A Stereocontrolled Synthesis of 2-Fluorogeraniol and 2-Fluorofarnesol

Thi My Thu Truong-Nguyen, Hideo Togo and Manfred Schlosser *
Institut de Chimie organique Université de Lausanne, Switzerland

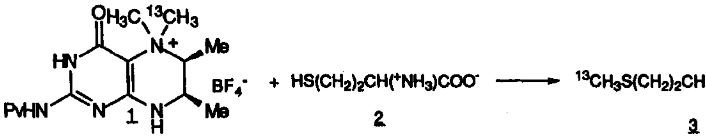


Tetrahedron, **1994**, *50*, 7837

DEALKYLATION OF QUATERNARY AMMONIUM SALTS BY THIOLATE ANIONS: A MODEL OF THE COBALAMIN INDEPENDENT METHIONINE SYNTHASE REACTION.

Ellen Hilhorst, Tjoe B.R.A. Chen and Upendra K. Pandit*. Organic Chemistry Laboratory, University of Amsterdam, (The Netherlands).

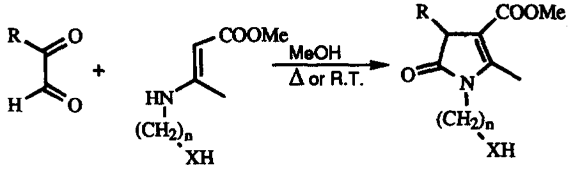
Pteridinium salt 1 converts homocysteine 2 into methionine 3 in a mimic of the cobalamin-independent methionine synthase reaction.



Tetrahedron, **1994**, *50*, 7849

N-SUBSTITUTED PYRROLINONES FROM ENAMINES AND α-DICARBONYLS

Esther Caballero*, Pilar Puebla, María Domercq, Manuel Medarde, Jose-L. López and Arturo San Feliciano
Departamento de Química Orgánica y Farmacéutica. Facultad de Farmacia. Universidad de Salamanca. E-37007 Salamanca. Spain.



Pyrrolinones are the main product of this reaction. The synthetic utility and the regiochemistry of this reaction are discussed.
Other minor products are also described.

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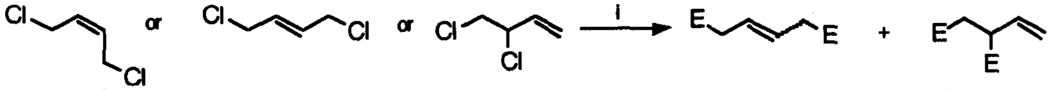
ARENE-CATALYSED LITHIATION OF 1,4-DICHLOROBUT-2-ENES AND 3,4-DICHLOROBUT-1-ENE AND REACTION WITH ELECTROPHILES: A COMMON REACTION PATHWAY

A. Guijarro and M. Yus*
Departamento de Química Orgánica, Facultad de Ciencias, Universidad de Alicante, Apdo. 99, 03080 Alicante, Spain

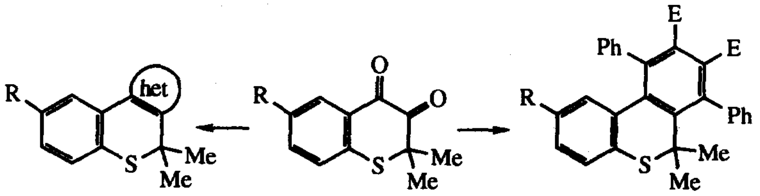


[*Reagents*: i, Li, DTBB cat. (5 mol %), $E^+=(CH_2)_4CO$, Bu^tCHO, Me_3SiCl. Global yield: 30-90%]

Tetrahedron, **1994**, *50*, 7865

Synthesis and Reactivity of Some Thiochroman-3,4-diones.

Christopher D. Gabbutt, John D. Hepworth and B. Mark Heron.
Department of Chemistry, University of Central Lancashire, Preston, PR1 2HE, England.

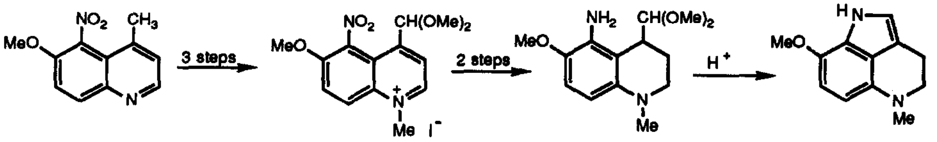


Tetrahedron, **1994**, *50*, 7879

Synthesis of a 1,3,4,5-Tetrahydropyrrolo[4,3,2-*de*]quinoline

Carlos Estévez,[a] Lennart Venemalm,[b] Mercedes Alvarez,[a]* and John A. Joule[b]*

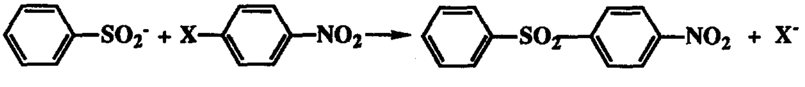
a Laboratori de Química Orgànica, Facultat de Farmàcia, Universitat de Barcelona, 08028 Barcelona, Spain.
b Chemistry Department, University of Manchester, Manchester M13 9PL, U. K.



Tetrahedron, **1994**, *50*, 7889

Electrochemical Investigation of the Reaction between Sodium Benzenesulfinate and *p*-Halonitrobenzenes

Henrik Balslev and Henning Lund*
Department of Organic Chemistry, University of Aarhus, DK-8000 Aarhus C, Denmark



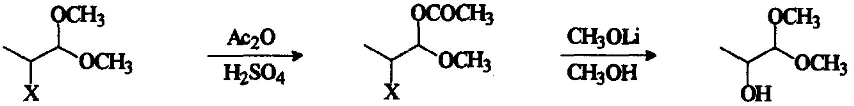
Electrochemical evidence suggests that the title reaction follows a polar mechanism rather than a radical chain mechanism ($S_{RN}2$).

Tetrahedron, **1994**, *50*, 7897

AN EFFICIENT PROCEDURE TO α-HYDROXYALDEHYDE DIMETHYL ACETALS.

Monica Boni, Luca Forti, Franco Ghelfi* and Ugo M. Pagnoni
Dipartimento di Chimica dell'Universita', via Campi 183, I-41100, Modena (Italy).

α-hydroxyaldehyde dimethyl acetals are prepared efficiently by conversion of α-haloaldehyde dimethyl acetals into α-haloaldehyde hemiacetal acetates and subsequent methanolysis promoted by lithium methoxide.



Tetrahedron, **1994**, *50*, 7903

MODIFICATION OF CHEMICAL REACTIVITY UPON CYCLODEXTRIN ENCAPSULATION : ASYMMETRIC BROMINATION OF CHALCONE AND BENZYLIDENEACETONE

KASI PITCHUMANI,*,[a] PONNUSAMY VELUSAMY, SANTHAMOORTHY SABITHAMALA and CHOCKALINGAM SRINIVASAN*
Department of Materials Science, Madurai Kamaraj University, Madurai-625 021, India and [a]School of Chemistry, Madurai Kamaraj University, Madurai

In contrast to the bromination of chalcone, its β-cyclodextrin complex results in a mixture of erythro- and threo-dibromides.

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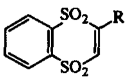
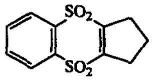
SYNTHETIC EQUIVALENTS TO SUBSTITUTED ACETYLENES IN CYCLO ADDITION REACTIONS. DIENOPHILIC REACTIVITY OF 2-METHYL-, 2-PHENYL- AND 2,3-TRIMETHYLENE-1,4-BENZODITHIINS-1,4-TETROXIDES

A. Giacometti,[a] O. De Lucchi,[a] F. Dilillo,[a] S. Cossu,[b] K. Peters,[c] E.-M. Peters,[c] H. G. von Schnering[c]
[a]*Università di Venezia, Italy,* [b]*Università di Sassari, Italy,* [c]*Max-Planck-Institut, Stuttgart, Germany*

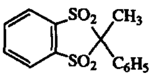
The three dienophiles **3a-c** were prepared, reacted with a few dienes and the adducts desulfonylated to **11a,b,d**. The X-ray structures of a secondary product in the preparation of the dienophiles (**4b**) and of one adduct (**8b**) are reported.



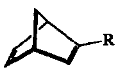
3a ($R = CH_3$)
3b ($R = C_6H_5$)



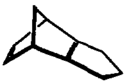
3c



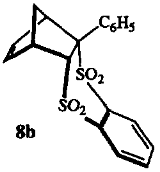
4b



11a ($R = CH_3$)
11b ($R = C_6H_5$)



11d



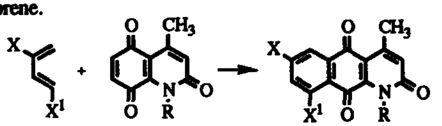
8b

Tetrahedron, **1994**, *50*, 7923

REGIOSELECTIVITY OF THE DIELS-ALDER REACTIONS OF 2,5,8(1*H*)-QUINOLINETRIONES.

José María Pérez, Luis Vidal, Mercedes T. Grande, J. Carlos Menéndez and Carmen Avendaño
Departamento de Química Orgánica y Farmacéutica, Facultad de Farmacia, Universidad Complutense, 28040-Madrid, Spain.

Diels-Alder reactions of 2,5,8(1*H*)-quinolinetriones were completely regioselective for all the unsymmetrical dienes tested, except in the case of isoprene.



$X, X^1 = H, CH_3, OCH_3, OSi(CH_3)_3$
$R = H, CH_3$

Tetrahedron, **1994**, *50*, 7933

A CONFORMATIONAL COMPARISON OF CYCLO-[(S)-HIS-(S)-LEU], AND CYCLO-[(S)-HIS-(S)-PHE], CATALYSTS FOR THE ASYMMETRIC ADDITION OF HCN TO ALDEHYDES

David J.P. Hogg, Michael North*, and Robert B. Stokoe
Department of Chemistry, University of Wales, Bangor, Gwynedd, LL57 2UW

A conformational analysis of the title compounds utilising variable temperature NMR and molecular mechanics techniques is reported. The possible relevence of the results to asymmetric cyanohydrin synthesis is discussed.