

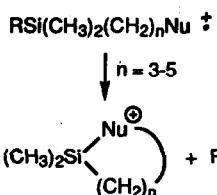
GRAPHICAL ABSTRACTS

INTRAMOLECULAR NUCLEOPHILE-ASSISTED CLEAVAGE OF ORGANOSILANE CATION RADICALS

William P. Todd, Joseph P. Dinnocenzo, Samir Farid, Joshua L. Goodman, and Ian R. Gould, Center for Photoinduced Charge Transfer and the Department of Chemistry, University of Rochester, Rochester, New York 14627, and Corporate Research Laboratories, Eastman Kodak Company, Rochester, New York 14650

Photoinduced oxidation of organosilanes in high and moderate polarity solvents results in intramolecular nucleophilic substitution which competes with return electron transfer and ion pair separation.

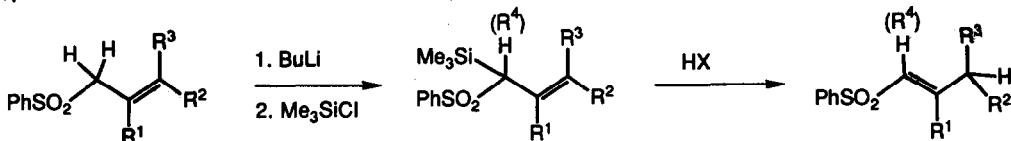
Tetrahedron Lett. 1993, 34, 2863



STEREOSELECTIVE PREPARATION OF VINYL SULFONES BY PROTODESILYLATION OF ALLYL SILANES.

Raymond L. Funk, Joy Umstead-Daggett and Kay M. Brummond

Dept. of Chem., Univ. of Nebraska, Lincoln, NE 68588 and Dept. of Chem., Penn. State Univ., Univ. Park, PA 16802
 β,γ -Unsaturated sulfones can be stereoselectively conjugated by protodesilylation of α -trimethylsilylsulfones.

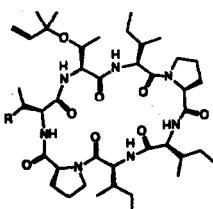


Tetrahedron Lett. 1993, 34, 2867

Nairiamides A and B. Two Novel Di-Proline Heptapeptides Isolated from a Fijian *Lissoclinum bistratum* Ascidian.
 Mark P. Foster and Chris M. Ireland.* Department of Medicinal Chemistry, University of Utah, SLC, UT 84112.

Tetrahedron Lett. 1993, 34, 2871

Two new cyclic heptapeptides have been isolated from the ascidian *Lissoclinum bistratum*, and their structures determined by a combination of spectroscopic techniques, including a natural abundance two-dimensional ^1H ($^{13}\text{C}, ^1\text{H}$)-HMQC-TOCSY experiment which was pivotal to assigning and identifying the amino acid residues. ^1H (^{13}C)-HMBC and [^1H - ^1H]-ROESY experiments provided the correlations necessary to sequence the peptides. In both peptides, the Ile-Pro amide bonds adopt cis configurations.



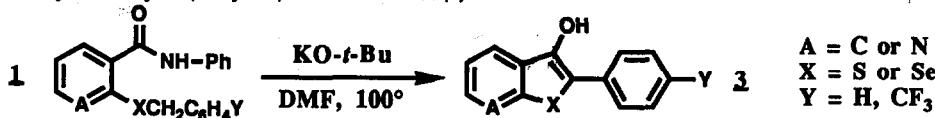
Tetrahedron Lett. 1993, 34, 2875

A Synthesis of 2-Aryl-3-hydroxybenzothiophenes and Analogs by the Base Promoted Cyclization of N-Phenyl-2-(benzylthio)benzamides.

Stephen W. Wright,* and Ronald L. Corbett

The Du Pont Merck Pharmaceutical Company, Du Pont Experimental Station, Wilmington, Delaware 19880-0353

A new methodology is described for the synthesis of 3-hydroxybenzothiophenes (3) and the corresponding selenophene analogs by the base promoted cyclization of a 2-(benzylthio)arenecarboxanilide (2).



RADICAL CYCLIZATIONS OF DIOSPHENOL ω -HALO-ALKYL ETHERS TO OXABICYCLOALKANONES

Anthony A. Ponoras* and Ömer Zaim, Department of Chemistry, The Catholic University of America, Washington, DC 20064

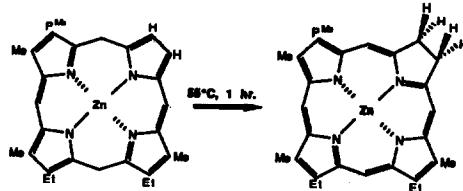
Diosphenol ω -haloalkyl ethers undergo radical cyclization:



A Rational Step-by-Step Preparation of a Chlorin from Linear Tetrapyrroles.

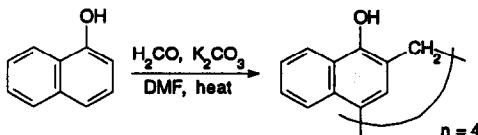
Dennis H. Burns,* Tim M. Caldwell and Michael W. Burden, Department of Chemistry, Wichita State University, Wichita, Kansas 67260

Formation of porphidomethene by condensation of pyromethanes, metalation with $Zn(OAc)_2$ under neutral conditions and heating to $55^\circ C$ for 1 hour in chloroform produces chlorin in 27% yield.



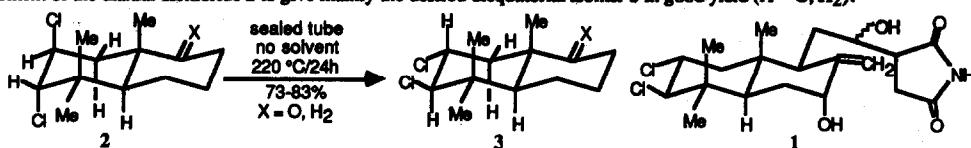
Calix[4]naphthalenes: Cyclic Tetramers of 1-Naphthol and Formaldehyde. Paris E. Georghiou* and Zhaopeng Li, Dept. of Chemistry, Memorial University of Newfoundland, St. John's, NFLD, A1B 3X7, Canada.

Base-catalysed reaction of 1-naphthol with formaldehyde in DMF produces three isomeric cyclic tetramers that are analogous to the calix[4]arenes and calix[4]resorcinarenes.



EFFICIENT METHOD FOR THE PREPARATION OF $2\alpha,3\beta$ -DICHLORO-4,4,10-TRIMETHYLDECALIN SYSTEMS AS A ROUTE FOR THE SYNTHESIS OF DICHLOROLISSOClimide

Michael E. Jung* & Angel Vidal Gomez, Department of Chemistry, University of California, Los Angeles, CA 90024
An efficient total synthesis of an analogue of the AB ring of dichlorolissoclimide, 1, is reported, in which the key step is the thermal rearrangement of the diaxial dichloride 2 to give mainly the desired diequatorial isomer 3 in good yield ($X = O, H_2$).

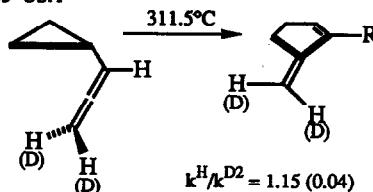


A ROTATIONAL KINETIC ISOTOPE EFFECT IN THE CYCLOPROPYLALLENE TO 3-METHYLENECYCLOPENTENE THERMAL REARRANGEMENT

Leif P. Olson, Joseph J. Gajewski

Department of Chemistry; Indiana University, Bloomington, IN 47405 USA

The deuterium kinetic isotope effect at the exo-methylene carbon of allenyl-cyclopropane in its thermal 1,3-sigmatropic shift to 3-methylenecyclopentene was found to be $1.15/D_2$ at 311.5°C. This is a striking example of a rotational effect.

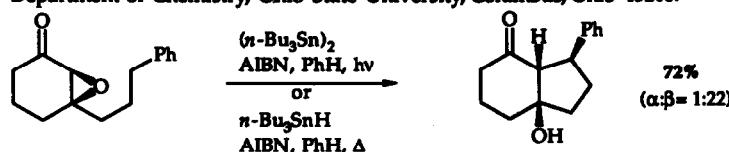


Radical-Induced Epoxide Fragmentation Chemistry.

$n\text{-Bu}_3\text{Sn}\bullet$ Radical Catalyzed Isomerization of Epoxyketones to Carbocycles

Viresh H. Rawal,* Venkat Krishnamurthy and Agnes Fabre

Department of Chemistry, Ohio State University, Columbus, Ohio 43210.

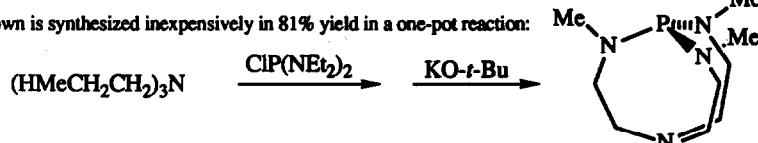


AN IMPROVED SYNTHESIS OF THE STRONG BASE P(MeNCH₂CH₂)₃N

Jian-sheng Tang and John G. Verkade*

Gilman Hall, Department of Chemistry, Iowa State University, Ames, Iowa 50011 USA

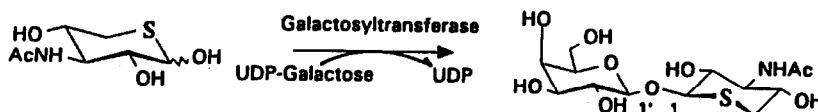
The useful bicyclic strong base shown is synthesized inexpensively in 81% yield in a one-pot reaction:



Extension of the β -Gal1,1-Transfer to N-Acetyl 5-Thio-Gentosamine by Galactosyltransferase

Y. Nishida, T. Wiemann and J. Thiem*

Department of Organic Chemistry, University of Hamburg, Martin-Luther-King-Platz 6, D-2000 Hamburg 13, Germany



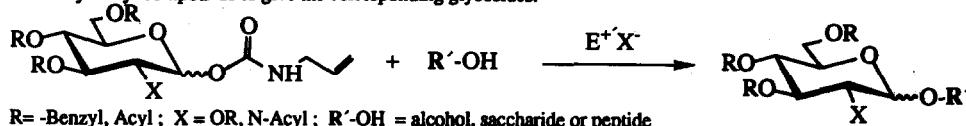
A novel disaccharide, β -Gal1,1 β -5-Thio-Xyl3NAc, was obtained in 40% yield employing UDP-Gal in a galactosyltransferase reaction.

Glycoside Synthesis via Electrophile-Induced Activation of N-Allyl Carbamates.

Tetrahedron Lett. 1993, 34, 2907

Horst Kunz* and Jörg Zimmer, Institut für Organische Chemie, Universität Mainz, Becherweg 18-20, D-(W)-6500 Mainz, Germany.

O-Benzyl-, O-acyl-, N-acyl- and isopropylidene-protected glycosyl N-allylcarbamates are activated by different electrophiles to react with various hydroxyl compounds to give the corresponding glycosides.



R = -Benzyl, Acyl; X = OR, N-Acyl; R'-OH = alcohol, saccharide or peptide

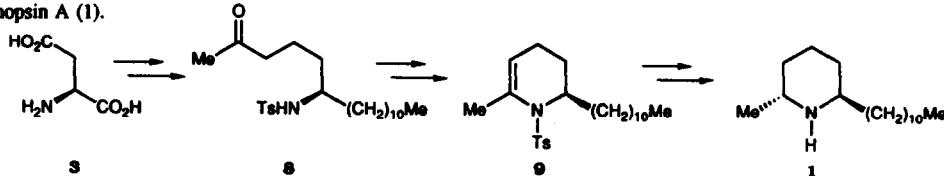
AN ENANTIOSPECIFIC SYNTHESIS OF SOLENOPSIN A

Tetrahedron Lett. 1993, 34, 2911

Charles W. Jefford* and Jian Bo Wang

Department of Organic Chemistry, University of Geneva, 1211 Geneva 4, Switzerland

L-Aspartic acid (3) was converted to the amino-ketone (8) which on cyclization to (9), reduction and deprotection, gave solenopsin A (1).

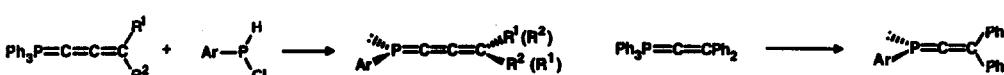


λ^3 -Phosphaallene und λ^3 -Phosphabutatriene

Tetrahedron Lett. 1993, 34, 2915

durch Umylidierung von λ^5 -Phosphaallen en und λ^5 -Phosphabutatrienen

G. Märkl, W. Bauer, Institut für Org. Chemie der Universität, Universitätsstraße 31, D-8400 Regensburg



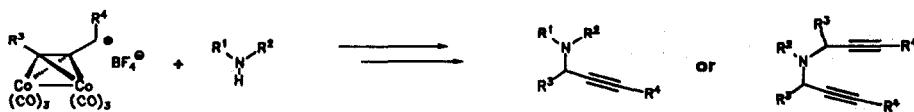
Nicholas Reactions of Amines

Tetrahedron Lett. 1993, 34, 2919

Klaus-Dieter Roth* and Utz Müller

Institut für Organische Chemie der Universität Erlangen, Henkestr. 42, W-8520 Erlangen

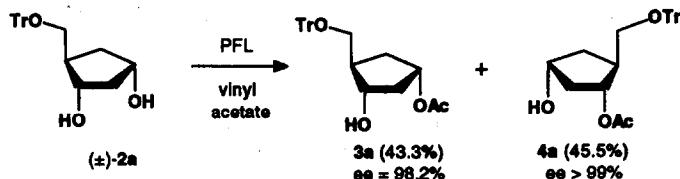
Nicholas reactions of amines produce mono- or bispropargylated tertiary amines.



**The Influence of Protecting Groups on Lipase
Catalyzed Transesterifications:
Enzymatic Resolution of Racemic *cis*-1,3-Cyclopentanediol Derivatives**

Tetrahedron Lett. 1993, 34, 2923

R. Henly^I, C.J.J. Eliel^I, H.P. Buser^I,
G. Ramos^{II} and H.E. Moser^{I*},
Central Research Laboratories^I and
Plant Protection Division^{II}
Ciba-Geigy Ltd,
CH-4002, Basle, Switzerland

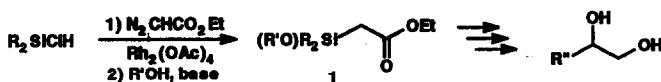


A One Pot Synthesis of α -(Alkoxyalkyl)acetic Esters

Olivier Andrey, Yannick Landais,* Denis Planchenault

Institut de Chimie Organique, Université de Lausanne, Rue de la Barre 2, 1005 Lausanne, Switzerland.

New α -(alkoxysilyl)acetic esters **1** have been prepared as shown below from chlorosilanes. An example of their conversion into terminal 1,2-diol is described.

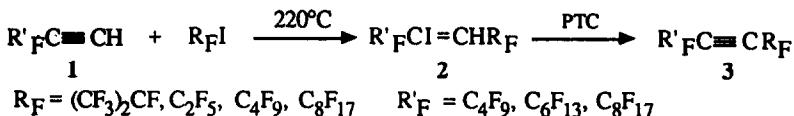


Convenient Preparation of Unsymmetrical

Tetrahedron Lett. 1993, 34, 2931

1,2-bis(Perfluoroalkyl)ethynes. Véronique Sanchez and Jacques Greiner, Unité de Chimie Moléculaire, associée au CNRS, Université de Nice-Sophia Antipolis, Parc Valrose, 06108 Nice Cedex 02, France.

Unsymmetrical *F*-alkynes **3** were prepared by dehydroiodination of **2** in 50-65% yields (after distillation, based on consumed **2**) under phase transfer catalysis ($n\text{Bu}_4\text{NHSO}_4$).

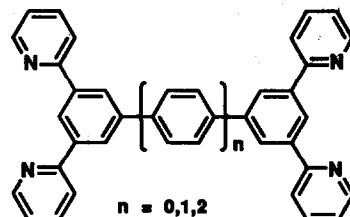


SYNTHESIS OF BIS-CYCLOMETALLATING N-C-N HEXADENTATE LIGANDS VIA C-C AROMATIC COUPLINGS AND THEIR DINUCLEAR RUTHENIUM(II) COMPLEXES.

Tetrahedron Lett. 1993, 34, 2933

Marc Beley, Sandrine Chodorowski, Jean-Paul Collin and Jean-Pierre Sauvage Laboratoire de Chimie Organo-Minérale, associé au CNRS, Faculté de Chimie, 1, rue Blaise Pascal, 67008 Strasbourg, France

By combining palladium catalyzed C-C coupling procedures either based on aromatic stannanes or utilizing boronic acids or esters (Suzuki's reaction), various biscyclometallating N-C-N ligands could be prepared.

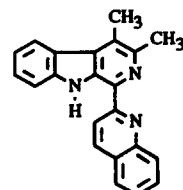


**A NEW APPROACH TO THE SYNTHESIS
OF LAVENDAMYCIN ANALOGUES.**

Tetrahedron Lett. 1993, 34, 2937

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

A three-steps approach to the lavendamycin skeleton from benzene, pyridine and quinoline blocks is described. It is based on a new synthetic methodology for the preparation of α -substituted β -carbolines which involves such reactions as Directed Ortho Metalation and Heteroring Cross-Coupling.

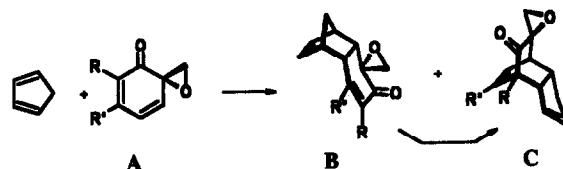


**DIELS-ALDER REACTION OF CYCLOPENTADIENE
AND SPIROEPOXY-2,4-CYCLOHEXADIENONES**

Tetrahedron Lett. 1993, 34, 2941

J.-P. Gesson,* L. Hervaud and M. Mondon
Laboratoire de Chimie 12, Associé au CNRS
40, Avenue du Recteur Pineau, F-86022 Poitiers

Cyclopentadiene and spiroepoxy-2,4-cyclohexadienones A ($R, R' = H, OCH_3$) afford mainly endo-endo adducts B and C. Cope rearrangement of B to C is also observed.



**Preparation of Lactones with Several Ring Sizes
via the Same Intermediate**

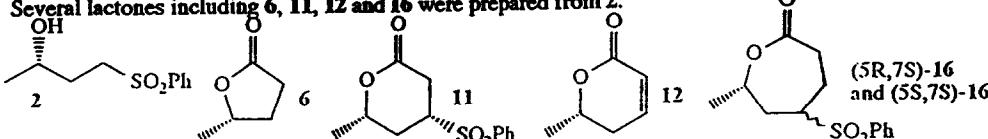
Tetrahedron Lett. 1993, 34, 2945

Sylvie Robin^a and François Huet^{*b}

^aLaboratoire des Carbocycles, Bât. 420, Université de Paris Sud 91405 Orsay Cedex France

^bLaboratoire de Synthèse Organique, Université du Maine, BP 535, 72017 Le Mans Cedex France

Several lactones including 6, 11, 12 and 16 were prepared from 2.



I₂o-Chlorination of 4-Alkylphenols Ethers .

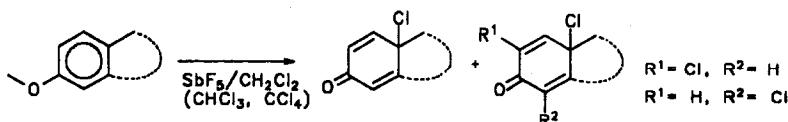
Tetrahedron Lett. 1993, 34, 2949

A Novel Route to 4-Chlorocyclohexa-2,5-dienones.

B. Ferron, J.C. Jacquesy, M.P. Jouannetaud, O. Karam, J.M. Coustard.

Laboratoire de Chimie XII associé au CNRS, Faculté des Sciences

40, Avenue du Recteur Pineau - 86022 Poitiers (France)

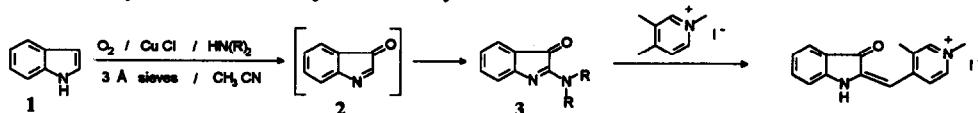


3-Oxo 3H-Indole from Dioxygen Copper-Catalyzed Oxidation of Indole: One-Flask Synthesis of 2-Dialkylamino 3-Oxo 3H-Indoles.

Tetrahedron Lett. 1993, 34, 2953

Patrice Capdevielle* and Michel Maumy, Laboratoire de Recherches Organiques de l'ESPCI, associé au CNRS, 10 rue Vauquelin, F - 75231 Paris Cedex 05, France.

Cu(I) catalyzed oxidation of 1 by O₂ in presence of dialkylamines leads *via* 2 to 2-dialkylamino 3-oxo 3H-indoles 3, new synthons for heterocyclic chemistry:



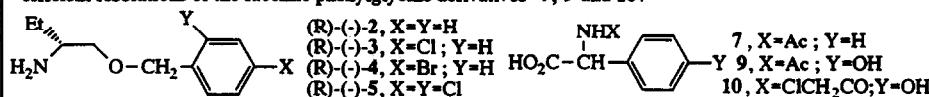
**O-BENZYL DERIVATIVES OF (S)-(+)- AND (R)-(−)-2-AMINO-BUTAN-1-OL AS NEW RESOLVING AGENTS FOR RACEMIC ACIDS.
PRACTICAL RESOLUTIONS OF N-ACYL DERIVATIVES OF PHENYLGLYCINE AND 4-HYDROXYPHENYLGLYCINE**

Tetrahedron Lett. 1993, 34, 2957

Joël Touet, Laurent Faveriel and Eric Brown

URA-CNRS 482, Faculté des Sciences, avenue Olivier Messiaen, BP 535, 72017 Le Mans, France

O-Benzylation of (R)-(−)-2-aminobutan-1-ol afforded the new bases (R)-(−)-2 to 5. The latter were used for efficient resolutions of the racemic phenylglycine derivatives 7, 9 and 10.



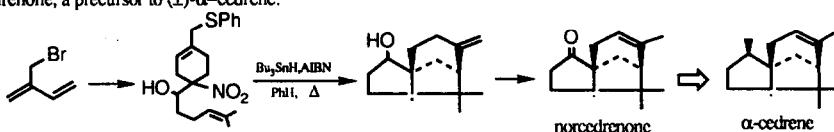
A NEW APPROACH TO THE FORMAL SYNTHESIS OF (±)-α-CEDRENE

Tetrahedron Lett. 1993, 34, 2961

Yao-Jung Chen*, Chew-Ming Chen, and Wen-Yuan Lin

Department of Chemistry, National Chung-Hsing University, Taichung, Taiwan 400, Republic of China

A tandem radical cyclization, which proceeds via an addition/elimination mechanism, has been applied to the synthesis of norcedrenone, a precursor to (±)-α-cedrene.

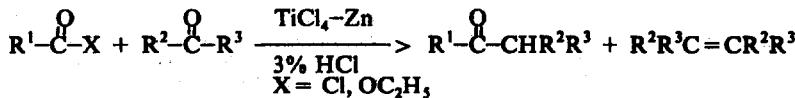


LOW-VALENT TITANIUM INDUCED REDUCTIVE COUPLING REACTION OF CARBOXYLIC DERIVATIVES WITH AROMATIC KETONES

Tetrahedron Lett. 1993, 34, 2963

Da-qing Shi, Jian-xie Chen, Wen-ying Chai, Wei-xing Chen*, and Tsing-yu Kao

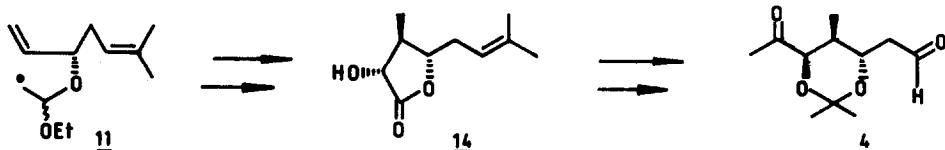
Department of Chemistry, Nanjing University, Nanjing, 210008, China



**STEREORESELECTIVE SYNTHESIS OF C-9 TO C-14 SEGMENT,
A KEY INTERMEDIATE FOR THE TOTAL SYNTHESIS OF
TRIENOMYCYIN AND MICOTRIENINS**

Tetrahedron Lett. 1993, 34, 2965

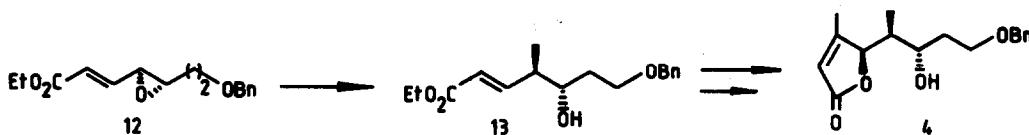
Yadav, J.S., Praveen Kumar, T.K., and Maniyan, P.P.
Indian Institute of Chemical Technology, Hyderabad 500 007, India



STEREOCONVERGENT SYNTHESIS OF C-9 TO C-16 FRAGMENT OF TRIENOMYCYIN BASED ON THE REGIOSELECTIVE OPENING OF γ - δ -EPOXY ACRYLATES WITH TRIMETHYLALUMINIUM

Tetrahedron Lett. 1993, 34, 2969

Yadav, J.S., Praveen Kumar T.K., and Maniyan, P.P.
Indian Institute of Chemical Technology, Hyderabad 500 007, India

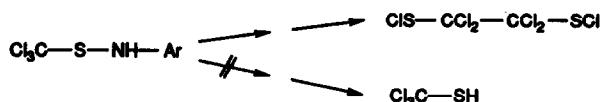


A COMPOUND PREVIOUSLY DESCRIBED AS TRICHLOROMETHANETHIOL IS IN FACT 1,1,2,2-TETRACHLORO-1,2-ETHANEDISULFENYL DICHLORIDE

Tetrahedron Lett. 1993, 34, 2973

Susanne B. Nielsen and Alexander Seening
Kemisk Institut, Aarhus Universitet, DK-8000 Århus C, Denmark.

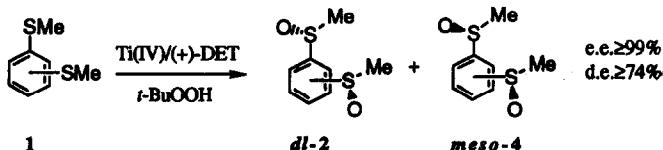
1,1,2,2-Tetrachloro-1,2-ethanedisulfenyl dichloride can be prepared by HCl cleavage of 2,3-bis-(4-methylphenyl)-5,5,6,6-tetrachloro-2,3,5,6-tetrahydro-1,4,2,3-dithiadiazine



Enantioselective Oxidation of Thioethers: an Easy Route to Enantiopure C₂ Symmetrical *bi*-Methylsulfinylbenzenes

Tetrahedron Lett. 1993, 34, 2975

Paolo Bendazzoli, Fulvio Di Furia, Giella Licini*, Giorgio Medana
Centro Meccanismi Reazioni Organiche del CNR, Dipartimento di Chimica Organica dell'Università, via Marzolo 1, I-35131 Padova, Italy

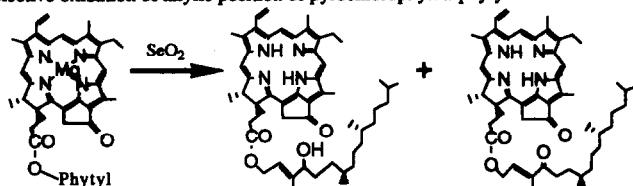


The direct oxidation of *bis*-methylthioethers 1 afford the corresponding *dl* *bis*-methylsulfinylbenzenes 2 almost enantiomerically pure (e.e.≥99%) in a process characterized also by a very high diastereoselectivity.

REGIOSELECTIVE OXIDATION OF THE PHYTYL CHAIN OF PYROCHLOROPHYLL A.

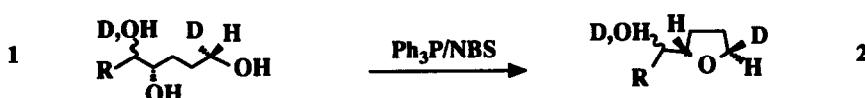
Andrei Yu. Tauber and Paavo H. Hyyninen,

Department of Chemistry, University of Helsinki, P. O. Box 6, SF-00014 Helsinki, Finland

Regioselective oxidation of allylic position of pyrochlorophyll *a* phytol chain with selenium dioxide is described.

ON THE MECHANISM OF THE FORMATION OF TETRAHYDROFURANS FROM 1,4-DIOLS MEDIATED BY TRIPHENYLPHOSPHINE AND N-BROMOSUCCINIMIDE.

Giovanni Fronza, Claudio Fuganti, Piero Grasselli, Giuseppe Pedrocchi-Fantoni, Stefano Servi, Dipartimento di Chimica and CNR, Politecnico di Milano, 20131 Milano, Italy.

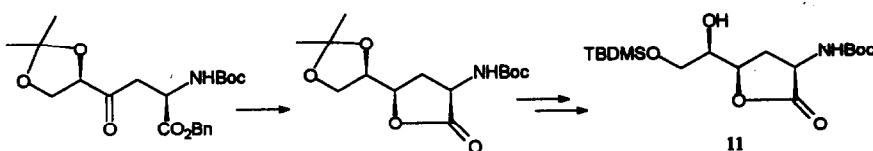
The conversion of (1*S*) 1 into tetrahydrofuran 2 by Ph₃P/NBS occurs with inversion of configuration at position 1.

SHORT, STEREOSELECTIVE SYNTHESSES OF 4,5,6-TRIHYDROXYLATED NORLEUCINES:

AN APPROACH TO THE SYNTHESIS OF (+)-BULGECININE

Richard F.W. Jackson* and Alan B. Retton

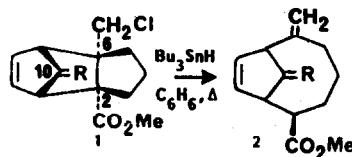
Department of Chemistry, Bedson Building, The University of Newcastle, Newcastle upon Tyne, NE1 7RU, UK



Strain Assisted Carbon-Carbon Bond Cleavage via Carbon Centred Radical. A Facile Route to Bridged Eight Membered Rings

Subrata Sarkar and Subrata Ghosh*

Department of Organic Chemistry, Indian Association for the Cultivation of Science, Jadavpur, Calcutta -700 032, India.

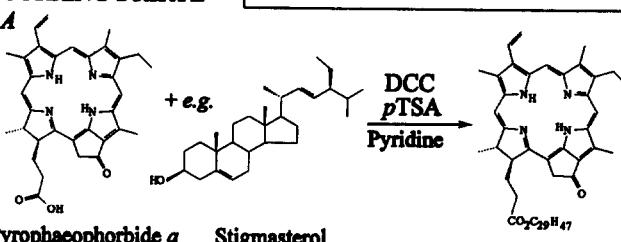
C-C bond cleavage during reaction of the chloroesters 1 to 2 with Bu₃SnH is found to be facilitated by the strain arising through non bonded interaction of C₁₀-H with those at C₃, C₄, C₅.

CHARACTERISATION OF NATURALLY OCCURRING STERYL ESTERS DERIVED FROM CHLOROPHYLL A

Tetrahedron Lett. 1993, 34, 2989

G.E.S. Pearce, B.J. Keely, P.J. Harradine, C.B. Eckardt, J.R. Maxwell*, Organic Geochemistry Unit, School of Chemistry, University of Bristol, Cantocks Close, Bristol, BS8 1TS, U.K.

A number of natural steryl esters of pyrophaeophorbide *a* have been identified by comparison with synthesised standards.

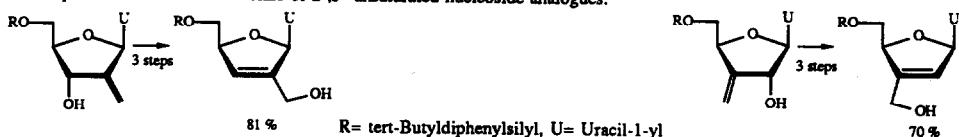


ALLYLIC ALCOHOL TRANSPOSITIONS IN THE CARBOHYDRATE MOIETY OF PYRIMIDINE NUCLEOSIDES

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The reagent system chlorodiphenylphosphine, imidazole, and iodine, is shown to be useful in a novel transposition reaction of allylic alcohols to provide access to a new class of 2',3'-unsaturated nucleoside analogues.



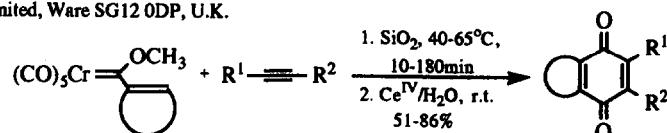
PROMOTION OF THE CHROMIUM CARBENE DÖTZ ANNULATION REACTION UNDER DRY STATE ADSORPTION CONDITIONS

Tetrahedron Lett. 1993, 34, 2995

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The reaction rates and product yields of the chromium carbene Dötz annulation reaction are enhanced, in most cases, when carried out on silica (solid state).



DIASTEREOSELECTIVE SYNTHESIS OF CHIRAL THIIRANES BY 1,3-DIPOLAR CYCLOADDITION OF IMIDAZO[2,1-*b*]THIAZOLIUM-4-O-LATE SYSTEMS WITH AROMATIC ALDEHYDES.

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