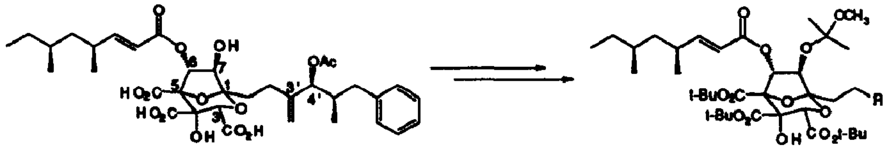
GRAPHICAL ABSTRACTS

Tetrahedron Letters, **1994**, *35*, 2451

Degradation of the C1 Side Chain of Zaragozic Acid A

Robert W. Marquis*, Sandra P. Plevyak, Gregory D. Berger and William H. Parsons
Merck Research Laboratories, P.O. Box 2000, Rahway, New Jersey 07065

***Abstract:** The chemoselective degradation of the C1 sidechain of the natural product squalene synthase inhibitor zaragozic acid A (I) is described. Key to this degradation sequence is the selective ozonolysis of the C3' olefin. The degraded sidechain provides convenient intermediates for additional synthetic studies with this class of natural products.*



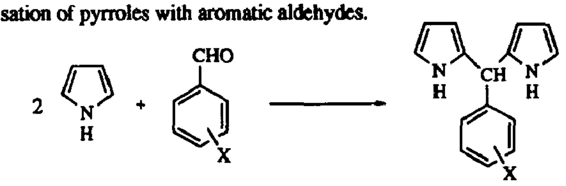
Zaragozic Acid A (1)

Tetrahedron Letters, **1994**, *35*, 2455

DIRECT SYNTHESIS OF ARYLDIPYRROMETHANES

Stephen J. Vigmond, Martin C. Chang, Krishna M.R. Kallury and
Michael Thompson*, Dept. of Chemistry, University of Toronto, Toronto, Ontario, Canada M5S 1A1

Under acidic conditions and low temperatures, aryldipyrromethanes may be isolated from the direct condensation of pyrroles with aromatic aldehydes.



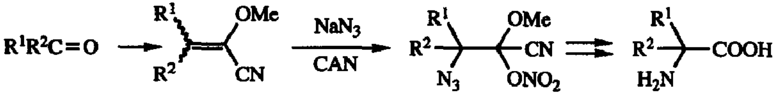
X = H (a); 4-Me (b); 4-NMe$_2$ (c); 4-Cl (d);
4-CN (e); 4-NO$_2$ (f); 2-NO$_2$ (g).

Tetrahedron Letters, **1994**, *35*, 2459

Synthesis of α-Amino Acids by Addition of Putative Azido Radicals to α-Methoxy Acrylonitriles Derived From Aldehydes and Ketones

Derrick L.J. Clive* and Nola Etkin
Chemistry Department, University of Alberta, Edmonton, Alberta, Canada T6G 2G2

α-Methoxy acrylonitriles, available from aldehydes and ketones, react with sodium azide in the presence of ceric ammonium nitrate to give azido nitrates, which can be converted into α-amino acids.

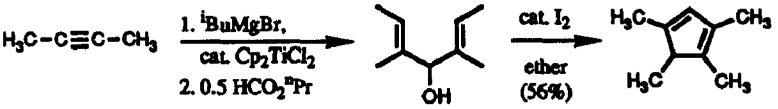


Tetrahedron Letters, **1994**, *35*, 2463

AN IMPROVED SYNTHESIS OF TETRAMETHYLCYCLOPENTADIENE

Charles M. Garner, Mark E. Prince,
Department of Chemistry, Baylor University, Waco, TX 76798

A rapid and relatively efficient two-step synthesis of tetramethylcyclopentadiene from 2-butyne is described.



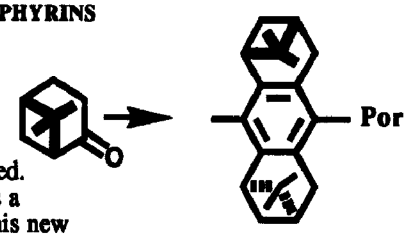
3

1b

Tetrahedron Letters, **1994**, *35*, 2465

A NEW "5+1" ROUTE TO ARENES. APPLICATION TO THE FACILE SYNTHESIS OF D_4-SYMMETRIC CHIRAL PORPHYRINS

John Barry and Thomas Kodadek*
Department of Chemistry and Biochemistry
University of Texas at Austin, Austin, Texas 78712

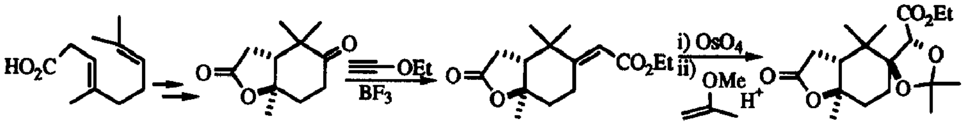


A new synthesis of bis-annulated aromatic rings is presented. It employs a novel "5+1" ring-forming reaction that inserts a vinyl stannane into a methylene-linked bis-enoltriflate. This new methodology is employed in the facile construction of a new chiral porphyrin derived from R-(+)-nopinone.

Tetrahedron Letters, **1994**, *35*, 2469

Concise Synthesis of a Taxol A-Ring Synthon: Formation of a 1,2-Alkylidene Linkage via Acetylene Chemistry

D. Crich* and J. Z. Crich, Dept. of Chemistry, Univ. Illinois at Chicago, 845 W. Taylor St., Chicago, Il 60607-7061, USA

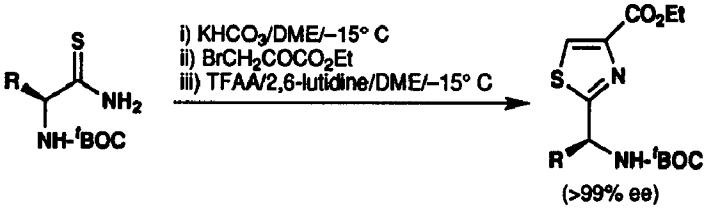


Tetrahedron Letters, **1994**, *35*, 2473

Reinvestigation of a Modified Hantzsch Thiazole Synthesis

Enrique Aguilar and A. I. Meyers*
Department of Chemistry, Colorado State University, Ft. Collins, CO 80523, USA

The reaction conditions of a modified Hantzsch reaction are reinvestigated to provide enantiomerically pure thiazole amino acid derivatives.

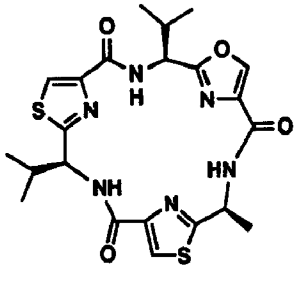


Tetrahedron Letters, **1994**, *35*, 2477

Total Synthesis of (-)-Bistatramide C

Enrique Aguilar and A. I. Meyers*
Department of Chemistry, Colorado State University, Ft. Collins, CO 80523, USA

The total synthesis of macrocyclic hexapeptide Bistatramide C has been accomplished by coupling optically pure thiazole and oxazole amino acids.

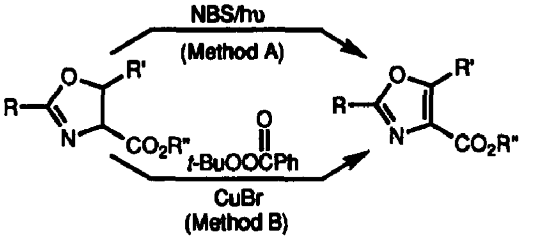


Tetrahedron Letters, 1994, *35*, 2481

The Oxidation of 2-Oxazolines to 1,3-Oxazoles

A. I. Meyers* and Francis Tavares
Department of Chemistry, Colorado State University,
Fort Collins, Colorado 80523 U.S.A.

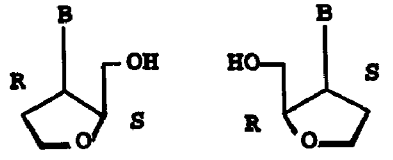
Two methods (A, B) to oxidize oxazolines to 1,3-oxazoles in good yields are described.



Tetrahedron Letters, 1994, *35*, 2485

SYNTHESIS OF NOVEL 3'-ISOMERIC DIDEOXYNUCLEOSIDES

Zoraida M. Nuesca and Vasu Nair,* Department of Chemistry, University of Iowa, Iowa City, Iowa 52242, U.S.A.



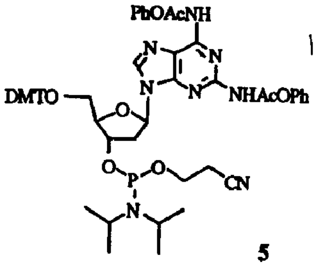
Synthetic approaches to both optical isomers of a new family of 3'-isodideoxynucleosides from chiral carbohydrate precursors.

Tetrahedron Letters, 1994, *35*, 2489

STABILIZATION OF DNA:DNA AND DNA:RNA DUPLEXES BY SUBSTITUTION OF 2'-DEOXYADENOSINE WITH 2'-DEOXY-2-AMINOADENOSINE

Sergei Gryaznov and Ronald G. Schultz
Lynx Therapeutics, Foster City, CA 94404

A fully protected deoxy-2-aminoadenosine phosphoramidite (5) is prepared and incorporated into homo- and mixed-base oligonucleotides for studies of their binding affinities to complementary DNA and RNA.



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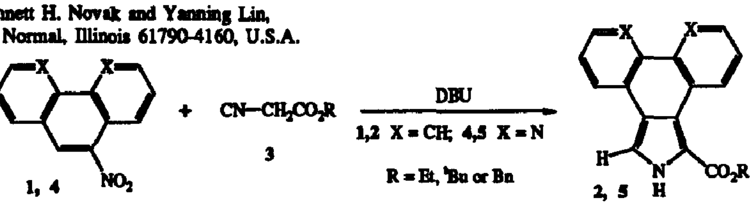
Tetrahedron Letters, 1994, *35*, 2493

Synthesis of Phenanthropyrroles and Phenanthrolinopyrroles from Isocyanoacetates: An Extension of the Barton-Zard Pyrrole Condensation.

Timothy D. Lash,* Bennett H. Novak and Yanning Lin, Department of Chemistry, Illinois State University, Normal, Illinois 61790-4160, U.S.A.

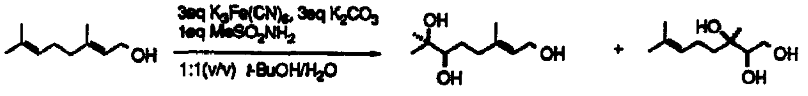
9-Nitrophenanthrene (1) and 5-nitro-1,10-phenanthroline (4) condensed with esters of isocyanoacetic acid 3 in the presence of one equivalent of DBU to give the corresponding phenanthropyrroles 2 and phenantholinopyrroles 5, respectively, in excellent yields.



Tetrahedron Letters, 1994, *35*, 2495

STUDY OF THE REGIO- AND ENANTIOSELECTIVITY OF THE REACTIONS OF OSMIUM TETROXIDE WITH ALLYLIC ALCOHOLS AND ALLYLIC SULFONAMIDES

Daqiang Xu, Christine Y. Park and K. Barry Sharpless*
Department of Chemistry, The Scripps Research Institute, 10666 N. Torrey Pines Road, La Jolla, CA 92037

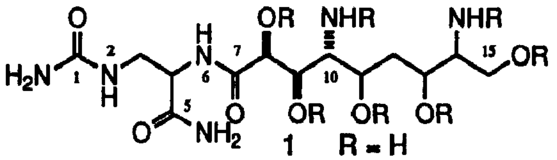


5% OsO_4, NO ligand, RT	4	:	1	
1% OsO_4, 5% quinuclidine, RT	9	:	1	
1% OsO_4, 5% $(DHQD)_2$-PHAL, 0 °C	≥49	:	1	(89% yield, 94% ee)

Tetrahedron Letters, 1994, *35*, 2499

Zwittermicin A, an Antifungal and Plant Protection Agent from *Bacillus cereus*

Haiyin He‡, Laura A. Silo-Suh¶,
Jo Handelsman¶*, Jon Clardy‡*
‡Department of Chemistry, Cornell University,
Ithaca, NY 14853-1301, USA
¶Department of Plant Pathology, University of Wisconsin,
Madison, WI 53706, USA



1 R = H
2 R = Ac

Summary: Zwittermicin A (1), a new linear aminopolyol, was isolated from *Bacillus cereus* UW85 and its structure was determined by spectroscopic methods.

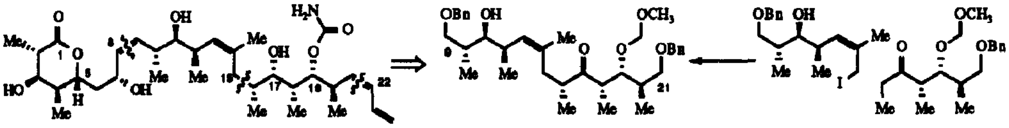
Tetrahedron Letters, 1994, *35*, 2503

The Synthesis of the C-9 to C-21 Sector of Discodermolide: An Efficient Route to the C-13-14 Z-Trisubstituted Alkene.

Ge Yang and David C. Myles,*
Department of Chemistry and Biochemistry, UCLA, Los Angeles, California 90024-1569, USA

The synthesis of the C-9 to C-15 subunit of discodermolide and its use in the synthesis of the C-9 to C-21 sector of the immunosuppressive marine natural product discodermolide are described.

Discodermolide (1)

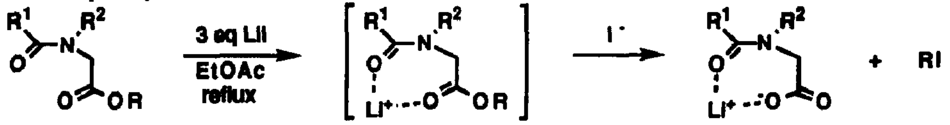


Tetrahedron Letters, 1994, *35*, 2505

IODIDE DEALKYLATION OF BENZYL, PMB, PNB, AND *t*-BUTYL *N*-ACYL AMINO ACID ESTERS VIA LITHIUM ION COORDINATION

Jack W. Fisher* and Kristina L. Trinkle, Chemical Process Research and Development Division, Lilly Research Laboratories, A Division of Eli Lilly and Company, Indianapolis, IN 46285-4813 USA

Lithium iodide promotes ester dealkylation in compounds containing an amide carbonyl in the γ-position to the ester carbonyl, as is found in *N*-acyl amino acid esters. Activation of the ester carbonyl via lithium ion coordination is facilitated by aprotic non-polar solvents such as THF and EtOAc. This process is not limited to methyl esters but readily dealkylates benzyl, PMB, PNB, and *t*-butyl esters and is especially suitable for use with β-lactam esters because of the mild conditions.



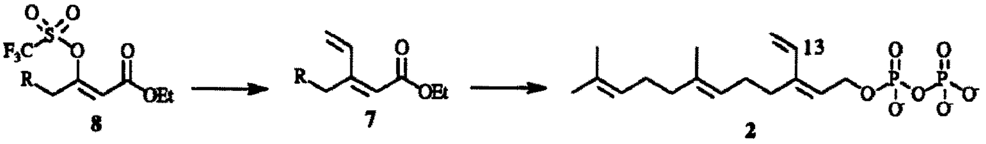
R = Benzyl, *p*-Methoxybenzyl (PMB), *p*-Nitrobenzyl (PNB), *t*-Butyl, Me

Tetrahedron Letters, **1994**, *35*, 2509

A Pd(0)-Catalyzed Route to 13-Methylidenefarnesyl Diphosphate

Richard A. Gibbs* and Usha Krishnan
Dept. of Pharmaceutical Sciences, Wayne State University, Detroit, MI 48202.

The Pd(0)/CuI-catalyzed coupling of 8 with vinyltributyltin proceeded in a highly stereoselective manner to give 7, which was then converted to the FPP analog 2.

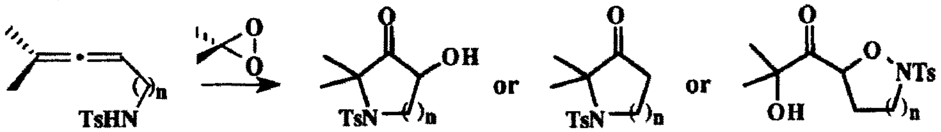


Tetrahedron Letters, **1994**, *35*, 2513

Oxidative Cyclizations of Allenic Sulfonamides with Dimethyldioxirane

Jack K. Crandall* and Thierry Reix
Department of Chemistry, Indiana University, Bloomington, IN 47405

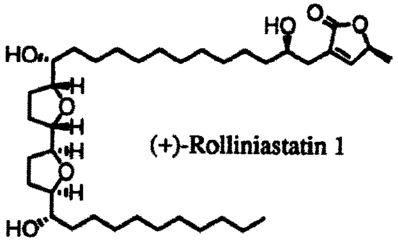
The dimethyldioxirane oxidations of allenic amine derivatives give highly functionalized nitrogen heterocycles derived from cyclizations of intermediate allene mono- and diepoxides.



Tetrahedron Letters, **1994**, *35*, 2517

Total Synthesis of (+)-Rolliniastatin 1. Ulrich Koert,

Fachbereich Chemie der Philipps Universität, D-35032 Marburg, Germany

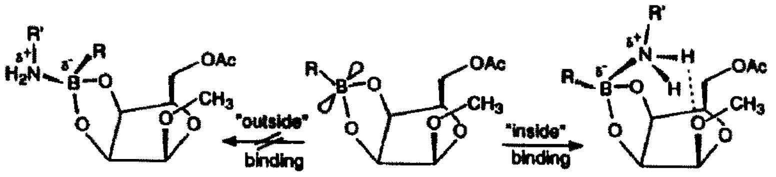


The total synthesis of the naturally occurring Annonaceous acetogenin (+)-rolliniastatin 1 is reported.

Tetrahedron Letters, **1994**, *35*, 2521

BORYLATED LYXOFURANOSIDES AS SELECTIVE HOST MOLECULES FOR AMINES

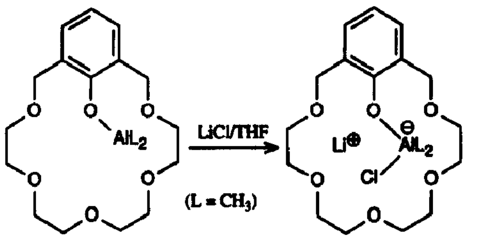
Manfred T. Reetz*, Jürgen Huff and Richard Goddard
Max-Planck-Institut für Kohlenforschung, Kaiser-Wilhelm-Platz 1, 45470 Mülheim/Ruhr, Germany



A NOVEL RECEPTOR FOR DITOPIC BINDING OF ALKALI METAL HALIDES

Tetrahedron Letters, **1994**, *35*, 2525

Manfred T. Reetz*[a], Barry M. Johnson[a] and Klaus Harms[b]
[a]Max-Planck-Institut für Kohlenforschung,
Kaiser-Wilhelm-Platz 1, 45470 Mülheim/Ruhr, Germany
[b]Universität Marburg, Fachbereich Chemie,
Hans-Meerwein-Strasse, 35043 Marburg, Germany

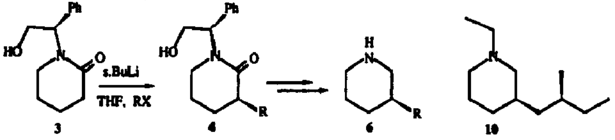


ASYMMETRIC SYNTHESIS. XXX. SYNTHESIS OF 3-SUBSTITUTED PIPERIDINES FROM CHIRAL NON-RACEMIC LACTAMS.

Tetrahedron Letters, **1994**, *35*, 2529

Laurent Micouin[a], Teresa Varea[b], Claude Riche[b], Angèle Chiaroni[b],
Jean-Charles Quirion[a]* and Henri-Philippe Husson[a]*.
a) Laboratoire de Chimie Thérapeutique associé au CNRS, Faculté des Sciences Pharmaceutiques et Biologiques,
Université R. Descartes, 4, Av. de l'Observatoire, 75270 Paris Cedex 06, FRANCE.
b) Institut de Chimie des Substances Naturelles du CNRS, 91198 Gif-sur-Yvette Cedex, France

A series of 3-substituted piperidines **4** in enantiomerically pure form has been synthetized from lactam **3** by a stereospecific alkylation. This strategy has been applied to the synthesis of (+) stenusine **10**.

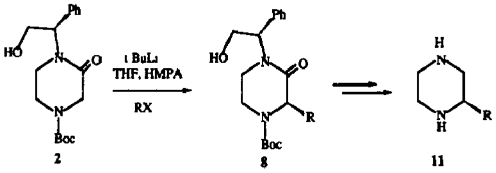


ASYMMETRIC SYNTHESIS. XXXI. SYNTHESIS OF 2-SUBSTITUTED PIPERAZINES FROM CHIRAL NON-RACEMIC LACTAMS.

Tetrahedron Letters, **1994**, *35*, 2533

Vincent Schanen[a], Claude Riche[b], Angèle Chiaroni[b], Jean-Charles Quirion[a]* and Henri-Philippe Husson[a]*.
a) Laboratoire de Chimie Thérapeutique associé au CNRS, Faculté des Sciences Pharmaceutiques et Biologiques,
Université R. Descartes, 4, Av. de l'Observatoire, 75270 Paris Cedex 06, FRANCE.
b) Institut de Chimie des Substances Naturelles du CNRS, 91198 Gif-sur-Yvette Cedex, France

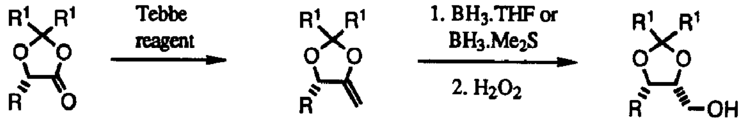
A series of 2-substituted piperazines **8** in enantiomerically pure form has been synthetized from lactam **2** by a stereospecific alkylation. The differentiation between the reactivity of the nitrogens allows an easy selective deprotection.



TWO-STEP STEREOSELECTIVE CONVERSION OF 5-MONOSUBSTITUTED 1,3-DIOXOLAN-4-ONES INTO SELECTIVELY PROTECTED 2,3-ERYTHRO-1,2,3-TRIOLS. A ROUTE TO POLYHYDROXYLATED MOLECULES

Tetrahedron Letters, **1994**, *35*, 2537

Edouard Untersteller, Yan Chao Xin and Pierre Sinaÿ*
Ecole Normale Supérieure
Département de Chimie, URA 1686
24 rue Lhomond
75231 Paris cedex 05, France

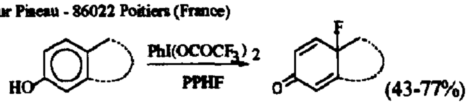


Tetrahedron Letters, **1994**, *35*, 2541

NUCLEOPHILIC *PARA*-FLUORINATION OF 4-ALKYLPHENOLS BY HYPERVALENT IODINE REAGENT AND PYRIDINIUM POLYHYDROGEN FLUORIDE(PPHF).

A NOVEL ROUTE TO 4-FLUOROCYCLOHEXA-2,5-DIENONES.

O.Karam, J.C. Jacquesy, M.P. Jouannetaud
Laboratoire de Chimie XII associé au CNRS, Faculté des Sciences
40, Avenue du Recteur Pineau - 86022 Poitiers (France)

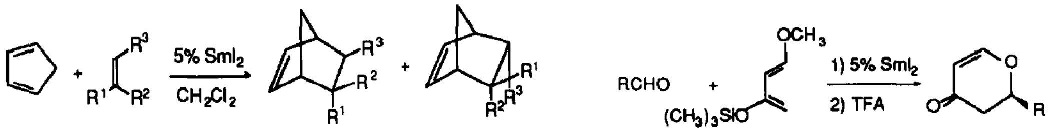


Tetrahedron Letters, **1994**, *35*, 2545

DIIODOSAMARIUM, A CATALYST PRECURSOR FOR DIELS-ALDER AND HETERO DIELS-ALDER REACTIONS.

P. Van de Weghe, J. Collin*. Laboratoire de Synthèse Asymétrique,
UA CNRS 1497, Institut de Chimie Moléculaire d'Orsay, Université Paris-Sud, 91405 Orsay, France.

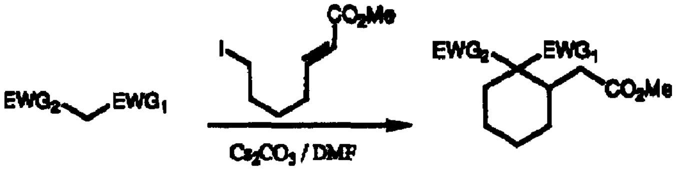
SmI_2 catalyzes Diels-Alder reactions between cyclopentadiene or isoprene and various dienophiles, and hetero Diels-Alder reactions between Danishevsky's diene and aromatic aldehydes.



Tetrahedron Letters, **1994**, *35*, 2549

A Convenient Annulation Process Involving a Tandem Alkylation–Michael Addition Sequence

Didier Desmaële* and Jean-Marc Louvet
Laboratoire de Chimie Organique, associé au CNRS, Faculté de Pharmacie, 5, rue J. B. Clément, 92296 Châtenay-Malabry (France).

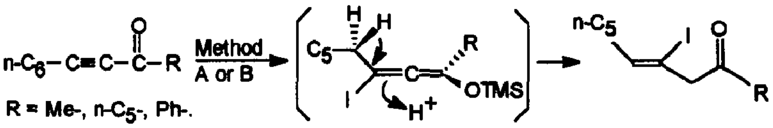


EWG= RCO, RO_2C, NO_2, Ar, CN

Tetrahedron Letters, **1994**, *35*, 2553

A Novel Stereoselective Synthesis of (Z)-3-Iodo-3-alken-1-one from 2-Alkyn-1-one

Fen-Tair Luo*, K. Ajay Kumar, Li-Chen Hsieh, Ren-Tzong Wang
Institute of Chemistry, Academia Sinica, Nankang, Taipei, Taiwan, ROC



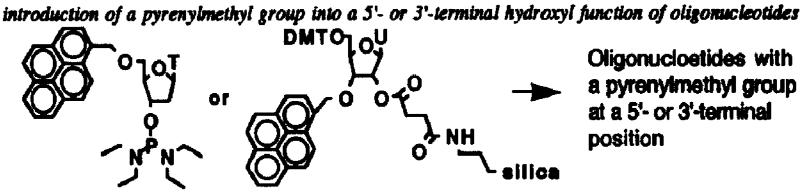
Method A: $TMSCl/NaI/H_2O/CH_3CN$, B: $TMSI/CH_3CN$

Tetrahedron Letters, **1994**, *35*, 2555

A New Method for Introduction of a Pyrene Group into a Terminal Position of an Oligonucleotide

Kazushige Yamana,* Kenji Nunota, Hidehiko Nakano, and Osamu Sangen, Department of Applied Chemistry,
Himeji Institute of Technology, 2167 Shosha, Himeji, Hyogo 671-22, Japan

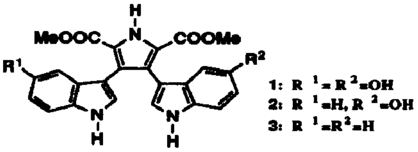
The method for introduction of a pyrenylmethyl group into a 5'- or 3'-terminal hydroxyl function of oligonucleotides has been described.



Tetrahedron Letters, **1994**, *35*, 2559

Three Novel Dimethyl Pyrroledicarboxylate, Lycogarubins A-C, from the Myxomycetes *Lycogala epidendrum*

Toshihiro Hashimoto, Akiyo Yasuda, Kyoko Akazawa,
Shigeru Takaoka, Motoo Tori and Yoshinori Asakawa*
Faculty of Pharmaceutical Sciences, Tokushima Bunri University, Yamashiro cho, Tokushima 770, Japan

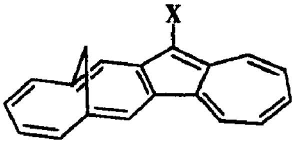


Lycogarubins A-C (**1**-**3**) have been isolated from the Myxomycetes *Lycogara epidendrum*. Their structures have been established by a combination of spectrometries and X-ray analysis.

Tetrahedron Letters, **1994**, *35*, 2561

SYNTHESIS AND STRUCTURAL PROPERTIES OF 2,7-METHANOCYCLODECA[a]AZULENE AND ITS DERIVATIVE

Koji Ito, Hiroyuki Kawaji, and Makoto Nitta*
Department of Chemistry, School of Science and
Engineering, Waseda University, Shinjuku-ku,
Tokyo 169, Japan



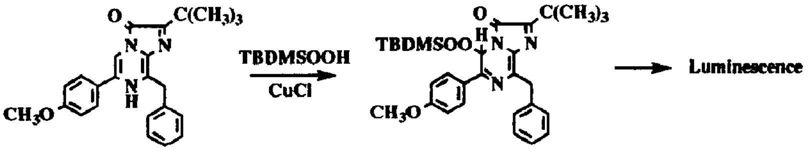
X=COOMe, or H

The title compounds were synthesized, and their ^1H NMR spectra revealed that they are composed of delocalized methano[10]annulene and localized azulene moieties.

Tetrahedron Letters, **1994**, *35*, 2565

SYNTHESIS OF SILYL PEROXIDE OF COELENTERAZINE (*OPLOPHORUS* LUCIFERIN) ANALOGUE FOR PRECURSOR OF LUMINESCENCE

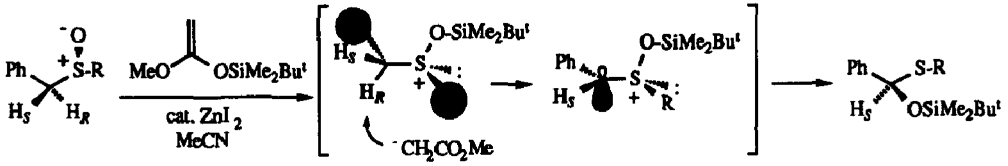
Katsunori Teranishi*, Minoru Isobe# and Tetsuya Yamada
School of Bioresources, Mie University, Kamihama-chou, Tsu 514, Japan
#School of Agriculture, Nagoya University, Chikusa, Nagoya 464-01, Japan



Tetrahedron Letters, 1994, *35*, 2569

MECHANISTIC STUDIES OF PUMMERER REACTION IN ACYCLIC SULFOXIDES INDUCED BY *O*-SILYLATED KETENE ACETALS

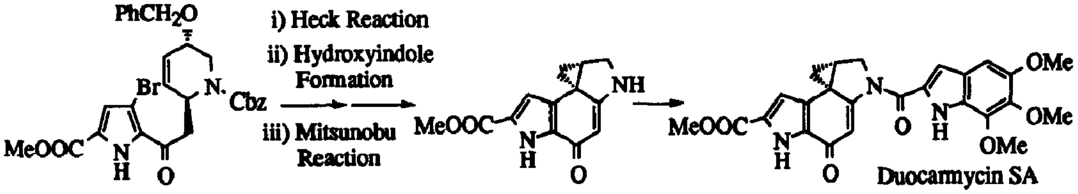
Yasuyuki Kita,* Norio Shibata, Naoki Yoshida, Seiji Fukui, and Chino Fujimori
Faculty of Pharmaceutical Sciences, Osaka University 1-6, Yamada-oka, Suita, Osaka 565, Japan



Tetrahedron Letters, 1994, *35*, 2573

TOTAL SYNTHESIS OF AN ANTITUMOR ANTIBIOTIC, (±)-DUOCARMYCIN SA

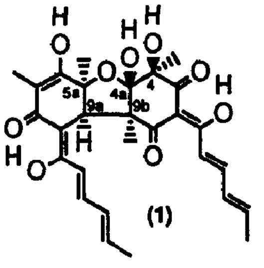
Hideaki Muratake, Itsuko Abe, and Mitsutaka Natsume*
Research Foundation Itsuu Laboratory, 2-28-10 Tamagawa, Setagaya-ku, Tokyo 158, Japan



Tetrahedron Letters, 1994, *35*, 2577

FIRST β-1,6-GLUCAN BIOSYNTHESIS INHIBITOR, BISVERTINOLONE ISOLATED FROM FUNGUS, *Acremonium strictum* AND ITS ABSOLUTE STEREOCHEMISTRY

Masanori Kontani, Youji Sakagami and Shingo Marumo, Department of Agricultural Chemistry, Nagoya University, Chikusa, Nagoya, 464-01, Japan


(1)

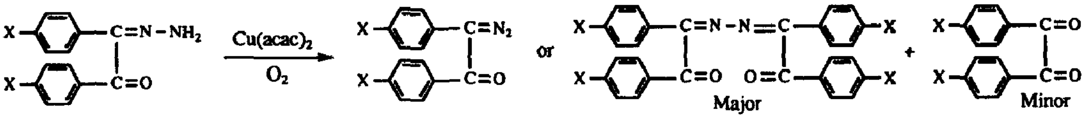
Bisvertinolone (1) that previously isolated as a fungal yellow metabolite was re-isolated from *Acremonium strictum* as a hyphal malformation inducer in fungi. Bisvertinolone was found to be the first β-1,6-glucan biosynthesis inhibitor, and its absolute stereochemistry determined by spectroscopic analysis.

Tetrahedron Letters, 1994, *35*, 2581

FORMATION OF DIAZOKETONES AND AZINES BY IMPROVED OXIDATION OF KETOHYDRAZONES USING Cu(acac)$_2$ AS A CATALYST

Toshikazu Ibata* and Girija S. Singh
Institute of Chemistry, College of General Education, Osaka University, Toyonaka, Osaka 560, Japan

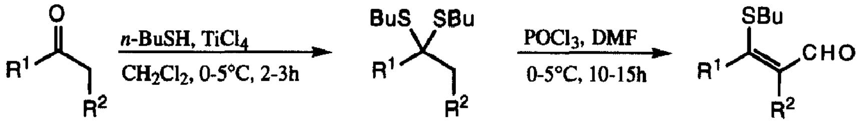
An efficient Cu(acac)$_2$-catalyzed oxidation of ketohydrazones afforded α-diazoketones or azines in high yields depending upon the reaction conditions.



Tetrahedron Letters, **1994**, *35*, 2585

THE VILSMEIER REACTION ON DITHIOKETALS: A FACILE METHOD FOR THE STEREOSELECTIVE SYNTHESIS OF β-ALKYLTHIOETHYLENIC ALDEHYDES

C.V. Asokan* and Annie Mathews, School of Chemical Sciences, Mahatma Gandhi University
Priyadarsini Hills , Kottayam, Kerala 686 560, India



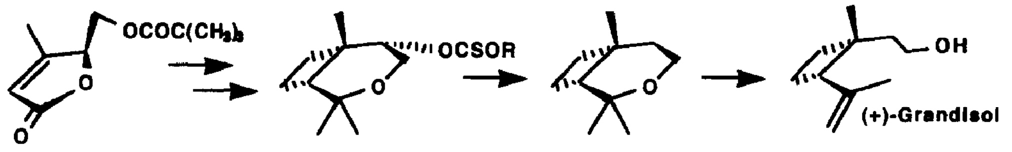
A simple two step procedure for the synthesis of β-alkylthioethylenic aldehydes from carbonyl compounds is described.

Tetrahedron Letters, **1994**, *35*, 2587

DIASTEREOSELECTIVE AND HIGHLY EFFICIENT RADICAL APPROACH TO (1S,6R) AND (1R,6S)-2,2,6-TRIMETHYL-3-OXABICYCLO[4.2.0]OCTADECANE, KEY INTERMEDIATES IN THE SYNTHESIS OF (+) AND (-)-GRANDISOL

R. Alibés, J.L. Bourdelande and J. Font.* Unitat Quím. Org., Dep. de Quím., U.A.B., Bellaterra, 08193 Barcelona, Spain.

The cycloadduct of ethylene to an homochiral butenolide eventually yields (+)-grandisol through a free radical deoxygenation.

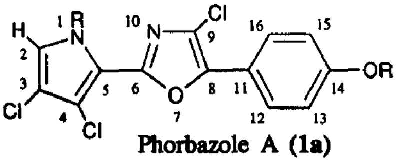


Tetrahedron Letters, **1994**, *35*, 2589

PHORBAZOLES A-D, NOVEL CHLORINATED PHENYLPYRROLYLOXAZOLES FROM THE MARINE SPONGE PHORBAS AFF. CLATHRATA

A. RUDI[1], S. GREEN[1], I. GOLDBERG[1], Y. KASHMAN[1]*, Y. BENAYAHU[2] AND M. SCHLEYER[3]
[1]School of Chemistry, [2]Department of Zoology,
Tel-Aviv University, Ramat Aviv 69978, ISRAEL
[3]O.R.I. Durban, Republic of South Africa

Four new marine alkaloids, phorbazoles A-D have been characterized.

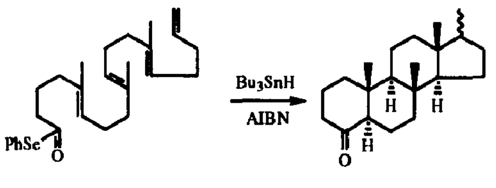


Phorbazole A (1a)

Tetrahedron Letters, **1994**, *35*, 2593

NEW RADICAL MEDIATED POLYOLEFIN CYCLISATIONS DIRECTED TOWARDS STEROID RING SYNTHESIS

Ligong Chen, G. Bryon Gill and Gerald Pattenden*
Department of Chemistry, The University, Nottingham, NG7 2RD

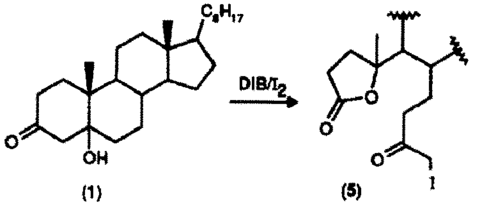


Tetrahedron Letters, **1994**, *35*, 2597

A NEW SEQUENTIAL ALKOXY RADICAL FRAGMENTATION OF δ-HYDROXYKETONES

Alicia Boto, Rosendo Hernández, Ernesto Suárez*
Instituto de Productos Naturales y Agrobiología del C.S.I.C., Carretera de La Esperanza, 2, La Laguna, Tenerife, Spain

The reaction of steroidal cyclic hydroxy-ketone (1) with (diacetoxyiodo)benzene (DIB) and iodine or mercuric oxide and iodine under an oxygen atmosphere and irradiation with visible light gave the γ-lactone (5). The initially formed alkoxy radical undergoes a new 5-step sequence β-fragmentation-peroxidation-radical reduction-radical cyclization-β-fragmentation reaction before being trapped by an atom of iodine.



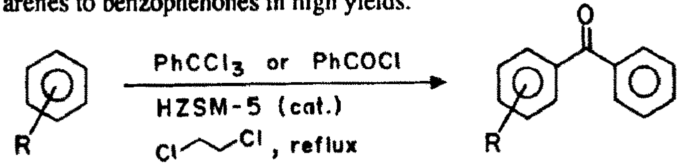
(1) (5)

Tetrahedron Letters, **1994**, *35*, 2601

HZSM-5 CATALYSED REGIOSPECIFIC BENZOYLATION OF ACTIVATED AROMATIC COMPOUNDS'

Vincent Paul, A. Sudalai, Thomas Daniel and K.V.Srinivasan
National Chemical Laboratory, Pune - 411 008, India.

HZSM-5 has been shown to display a remarkable reaction selectivity in the liquid-phase benzoylation of activated arenes to benzophenones in high yields.

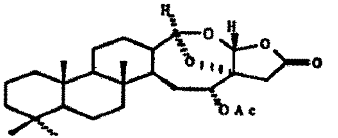


Tetrahedron Letters, **1994**, *35*, 2603

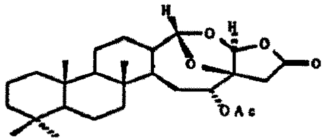
SESTERTERPENE LACTONES FROM A SPONGE SPECIES OF THE GENUS *DACTYLOSPONGIA*.

Allick R. Lal, Richard C. Cambie,*Clifton E.F. Rickard and Patricia R. Bergquist[a], Department of Chemistry and [a]School of Biological Sciences, The University of Auckland, Private Bag 92019, Auckland, New Zealand.

A *Dactylospongia* sp. sponge has yielded two sesterterpene lactones [1 and 2], as determined from nmr studies and X-ray structure of 2.



1

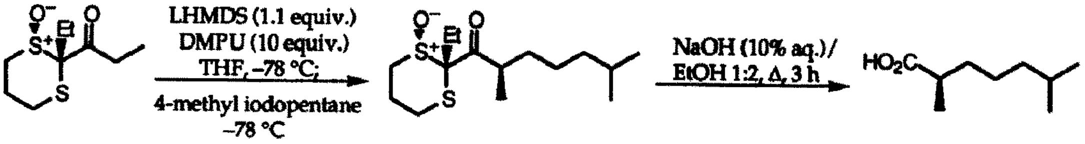


2

Tetrahedron Letters, **1994**, *35*, 2607

ENANTIOSELECTIVE SYNTHESIS OF (R)-(–)-2,6-DIMETHYL HEPTANOIC ACID: THE FIRST APPLICATION OF THE DITOX ASYMMETRIC BUILDING BLOCK

Philip C. Bulman Page,* Steven M. Allin, Eric W. Collington,† and Robin A. E. Carr†
Robert Robinson Laboratories, Department of Chemistry, University of Liverpool, Oxford Street, Liverpool, L69 3BX, England;
†Glaxo Group Research Ltd., Greenford Road, Greenford, Middlesex UB6 0HE, England

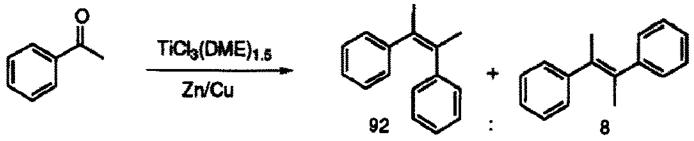


Tetrahedron Letters, **1994**, *35*, 2609

ON THE STEREOCHEMICAL OUTCOME OF THE McMURRY COUPLING OF ACETOPHENONE. A REINVESTIGATION.

Pher G. Andersson
Department of Organic Chemistry, University of Uppsala, Box 531, S-751 21 Uppsala, Sweden

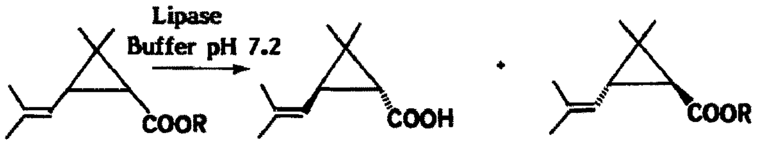
In contrast to previous reports, the McMurry homocoupling of acetophenone results predominately in Z-2,3-diphenyl-2-butene.



Tetrahedron Letters, **1994**, *35*, 2611

LIPASE CATALYSED KINETIC RESOLUTION OF RACEMIC (±)2,2-DIMETHYL-3-(2-METHYL-1-PROPENYL)-CYCLOPROPANE CARBOXYL ESTERS

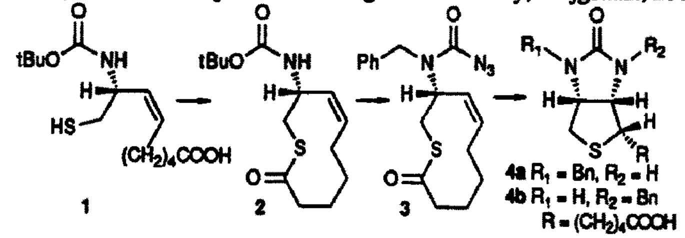
A Bhaskar Rao*, H Rehman, B Krishnakumari and J S Yadav
Division of Organic Chemistry I, Indian Institute of Chemical Technology, Hyderabad 500 007, India.



Tetrahedron Letters, **1994**, *35*, 2615

A NOVEL ENANTIOSELECTIVE SYNTHESIS OF (+)-BIOTIN

Frederik D. Deroose and Pierre J. De Clercq*
University of Gent, Department of Organic Chemistry, Krijgslaan, 281 (S.4), B-9000 GENT (Belgium)



An enantioselective synthesis of (+)-biotin from L-cysteine (12 steps) is reported based on the macrothiolactonisation of **1** to **2**, followed by unprecedented intramolecular cycloaddition in water of **3** to **4a** and **4b**.

Tetrahedron Letters, **1994**, *35*, 2619

Br$^+$-Induced Cyclization of γ,δ-Unsaturated Ketones: A New Approach to Bromopyrane Derivatives

Roberto Antonioletti, Stefano Magnanti, Arrigo Scettri
Centro C.N.R. di Studio per la Chimica delle Sostanze Organiche Naturali; Dipartimento di Chimica.
Università di Roma "La Sapienza", P.le Aldo Moro, 5 - 00185 Roma, Italy.

Abstract: 3,5-dibromo-3,4-dihydro-2,2-dimethyl-(2H)-pyrans **2**, are obtained trough a simple and new procedure involving a bromoenol-etherification of γ,δ-unsaturated ketones **1**; the key step is the formation of monobromopyran intermediate.