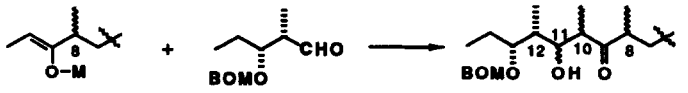
Tetrahedron Lett. **1993**, *34*, 2711

EFFECT OF METAL COUNTERIONS ON THE STEREOSELECTIVITY OF ALDOL REACTIONS USED TO ASSEMBLE THE SECO ACID BACKBONE OF ERYTHROMYCIN B

Stephen F. Martin* and Wen-Cherng Lee
Department of Chemistry and Biochemistry, The University of Texas, Austin, TX 78712

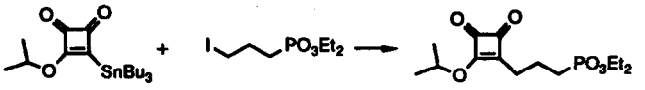
The diastereoselectivities of the aldol reactions of enolates comprising the C(3)-C(10) and C(1)-C(10) subunits of erythromycin B with a suitable aldehyde partner were examined.



Tetrahedron Lett. **1993**, *34*, 2715

SYNTHESIS OF ALKYL SUBSTITUTED CYCLOBUTENE-DIONES BY FREE RADICAL CHEMISTRY. CARBON FOR NITROGEN REPLACEMENT IN THE α-AMINO ACID BIOISOSTERE -- 3,4-DIAMINO-3-CYCLOBUTENE-1,2-DIONE.

William A. Kinney
Wyeth-Ayerst Research, CN 8000
Princeton, NJ 08543-8000, USA

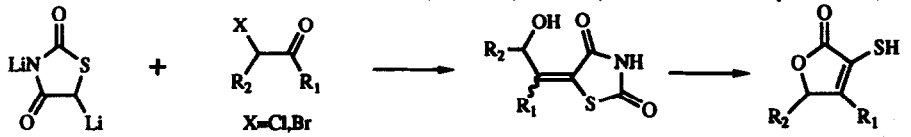


A novel free radical method for the synthesis of 3-alkoxy-4-alkylcyclobutene-1,2-diones was demonstrated, which is compatible with a variety of functional groups.

Tetrahedron Lett. **1993**, *34*, 2719

SYNTHESIS OF 3-MERCAPTO-2(5*H*)-FURANONES VIA REACTION OF DILITHIO-2,4-THIAZOLIDINEDIONE WITH α-HALO KETONES.

Arie Zask,* James W. Nowicki, Ivo Jirkovsky *Department of Medicinal Chemistry, Wyeth-Ayerst Research, CN 8000, Princeton, NJ 08543-8000.* Donna Van Engen *Department of Chemistry, Princeton University, Princeton, NJ 08540.*



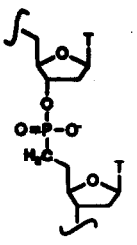
Reaction of dilithio-2,4-thiazolidinedione with α-halo ketones leads to substituted 3-mercapto-2(5*H*)-furanones.

Tetrahedron Lett. **1993**, *34*, 2723

SYNTHESIS OF 5′-DEOXY-5′-METHYLPHOSPHONATE LINKED THYMIDINE OLIGONUCLEOTIDES.

Markus P. Böhringer†, Daria Graff and Marvin H. Caruthers*
University of Colorado, Department of Chemistry and Biochemistry, Boulder, CO 80309-0215

A 5′-deoxy-5′-methylphosphonate linked thymidine dinucleotide was synthesized and its 3′-phosphoramidite used to synthesize oligonucleotides.

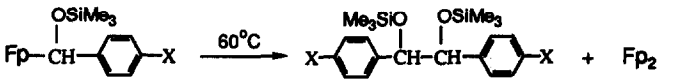


Tetrahedron Lett. **1993**, *34*, 2727

Synthesis of Pinacol Silylethers from Aromatic Aldehydes via α-Siloxybenzyliron Complexes

Roy M. Vargas and M. Mahmun Hossain*
Department of Chemistry, University of Wisconsin-Milwaukee, Wisconsin 53211

The α-siloxybenzyliron complexes **3** prepared from Fp [$Cp(CO)_2Fe$] anion **1** and aromatic aldehydes **2** in presence of chlorotrimethylsilane cleanly decomposed at 60°C to provide pinacol silylether **4** and Fp dimer **5** in excellent yields.

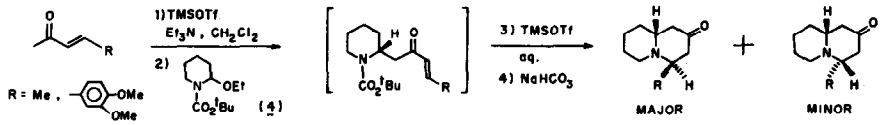


3, X= H, Me, OMe, Cl **4** **5**

Tetrahedron Lett. **1993**, *34*, 2729

TANDEM N-ACYLIMINIUM-MICHAEL ADDITION REACTION. AN EFFICIENT TOTAL SYNTHESIS OF THE QUINOLIZIDINE ALKALOIDS (+/-)-MYRTINE AND (+/-)-LASUBINE II. R.A. Pilli*, L.C. Dias and A.O. Maldaner, Instituto de Química, UNICAMP, C.P. 6154, 13081-970 Campinas, SP, Brazil.

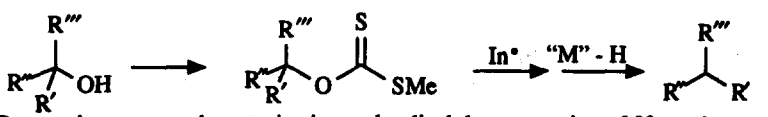
The one-pot preparation of the quinolizidin-2-one ring system is described through the tandem N-acylimminium-Michael addition reaction of 2-trimethylsililoxy butadienes to ethoxy carbamate **4**.



Tetrahedron Lett. **1993**, *34*, 2733

On The Stability And Radical Deoxygenation Of Tertiary Xanthates.

Derek H. R. Barton, Shyamal I. Parekh* and Chi-Lam Tse
Department of Chemistry; Texas A & M University; College Station, TX 77843-3255

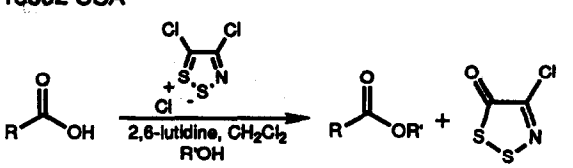


Preparation, proper characterization and radical deoxygenation of 3° xanthates was accomplished under various conditions.

Tetrahedron Lett. **1993**, *34*, 2737

GENERATION OF ESTERS FROM CARBOXYLIC ACIDS USING APPEL'S SALT (4,5-DICHLORO-1,2,3-DITHIAZOLIUM CHLORIDE) James J. Folmer and Steven M. Weinreb*, Department of Chemistry, The Pennsylvania State University, University Park, PA 16802 USA

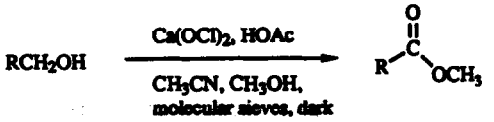
Esters can be generated in good yields under mild conditions from the corresponding carboxylic acid and alcohol using Appel's salt (4,5-dichloro-1,2,3-dithiazolium chloride).



Tetrahedron Lett. 1993, *34*, 2741

CALCIUM HYPOCHLORITE-MEDIATED OXIDATION OF PRIMARY ALCOHOLS TO METHYL ESTERS

Chriss E. McDonald, Lois E. Nice, Anthony W. Shaw, and Nestor B. Nestor
Department of Chemistry, Lycoming College, Williamsport, PA 17701

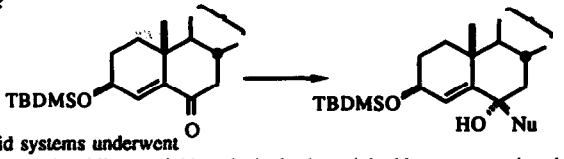


Primary alcohols are converted to methyl esters via heterolytic decomposition of hypochlorite intermediates in a one-pot transformation.

Tetrahedron Lett. 1993, *34*, 2745

AXIAL SELECTIVITY OF 1,2-NUCLEOPHILIC ADDITIONS TO 2-(ALKYLIDENE)CYCLOHEXANONES: IS IT HIGHER THAN THAT OF 2-CYCLOHEXENONES?

Zhengqing You* and Masato Koreeda[a]
*1550 Chew Street, Allentown, PA 18102
[a]Department of Chemistry, Univ. of Michigan, Ann Arbor, MI 48109

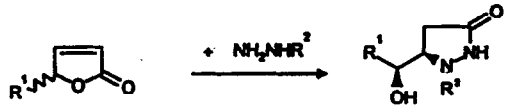


2-(Alkylidene)cyclohexanones embedded in steroid systems underwent 1,2-addition of both small and sterically demanding nucleophiles to yield exclusively the axial adducts, supporting the suggestion that 2-(alkylidene)cyclohexanones appear to have intrinsically higher stereoselectivity than 2-cyclohexenones.

Tetrahedron Lett. 1993, *34*, 2749

HIGHLY DIASTEREOSELECTIVE RING CHAIN TRANSFORMATION OF BUTENOLIDES TO 5-(α-HYDROXYALKYL)-PYRAZOLIDIN-3-ONES.

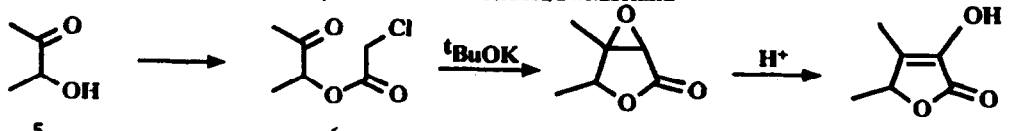
Jörg Bohrisch, Michael Pätzel and Jürgen Liebscher, Fachbereich Chemie, Humboldt-Universität Berlin, Hessische Str. 1-2, D-1040 Berlin, Germany
Peter G. Jones, Institut für Anorganische und Analytische Chemie, Technische Universität Braunschweig, Hagenring 30, D-3300 Braunschweig, Germany



Tetrahedron Lett. 1993, *34*, 2753

Synthesis of 3-Hydroxy-4,5-dimethyl-2(5H)-furanone and its Analogues; Utilisation of an Intramolecular Darzens Reaction

G. Fráter* and U. Müller
Givaudan-Roure Research Ltd, CH-8600 Dübendorf/Switzerland



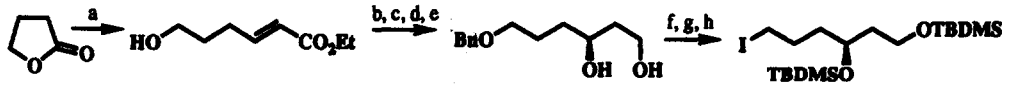
5 6 3 1

γ-Butyrolactone, an Alternative Source of Chiral Iodo Derivatives.

Tetrahedron Lett. 1993, *34*, 2757

Dominique de Kermadec and Michelle Prudhomme*, Laboratoire de Chimie Organique Biologique associé au CNRS, Université Blaise Pascal, 63177 Aubière Cedex, France.

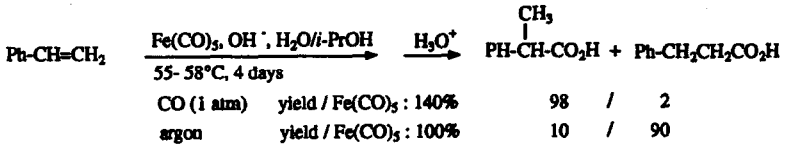
Synthesis of (3S) 1,3-di-*tert*-butyldimethylsilyloxy-6-iodohexane



HIGHLY REGIOSELECTIVE IRON-PROMOTED HYDROCARBOXYLATION OF STYRENE

Tetrahedron Lett. 1993, *34*, 2759

Jean-Jacques Brunet*, Denis Neibecker and Radhey S. Srivastava
Laboratoire de Chimie de Coordination du CNRS, 205, route de Narbonne, 31077 Toulouse (France)

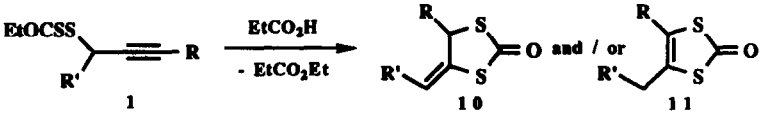


A NOVEL SYNTHESIS OF 1,3-DITHIOL-2-ONES FROM S-PROPARGYL DITHIOCARBONATES

Tetrahedron Lett. 1993, *34*, 2763

Jean Boivin, Eric Henriet, Catherine Tailhan and Samir Z. Zard*
Laboratoire de Synthèse Organique, Ecole Polytechnique, 91128 Palaiseau, France

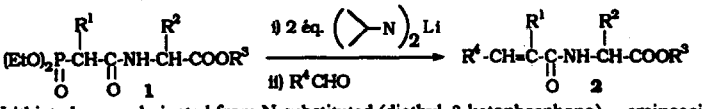
Upon heating in chlorobenzene in the presence of a carboxylic acid, propargylic xanthates **1** give 1,3-dithiol-2-ones **10** and / or **11**, the former being easily isomerised to the latter with hot trifluoroacetic acid.



Synthèse de Dérivés Insaturés d'Acides α-Aminés Précurseurs de Pseudoglycopeptides

Tetrahedron Lett. 1993, *34*, 2767

Ph. Coutrot*, C. Grison, C. Gérardin-Charbonnier and M. Lecouvey
Laboratoire de Chimie Organique II, associé au CNRS, Université de Nancy I, BP 239, 54506 Vandoeuvre les Nancy, France



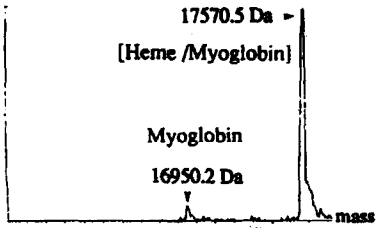
Lithiated anons derivated from N-substituted (diethyl-β-ketophosphono)-α-aminoacids react with aldehydes to give unsaturated derivatives of α-aminoacids. Application to 1,5-dialdo-1,2,3,4-O-diisopropylidene α-D-galactopyranose lead to pseudoglycopeptide precursors.

Tetrahedron Lett. **1993**, *34*, 2771

Characterisation of Non-covalent Complexes by Electrospray Mass Spectrometry

Michel Jaquinod[a], Emmanuelle Leize[a], Noelle Potier[a], Anne-Marie Albrecht[b], Abraham Shanzer[c], and Alain Van Dorsselaer[a]*
[a]Laboratoire de Spectrométrie de Masse Bio-Organique associé au CNRS, Université Louis Pasteur, 1 rue B. Pascal 67008 Strasbourg (France). [b]Laboratoire de Physico-Chimie Bio-Inorganique associé au CNRS, Strasbourg. [c]Department of Organic Chemistry, Weizmann Institute of Science, Rehovot, 76100 (Israël).

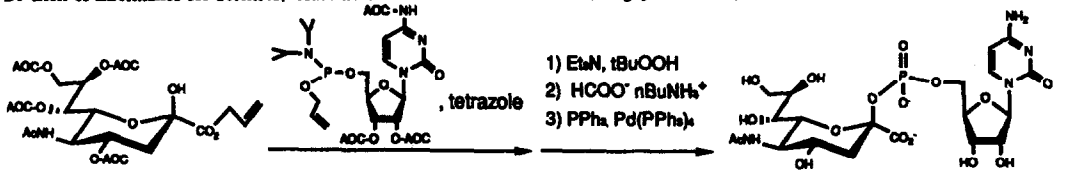
Electrospray mass spectrometry allows now the study of non-covalent assemblies of proteins with their cofactors such as myohemoglobine.



Tetrahedron Lett. **1993**, *34*, 2775

Chemical Synthesis of Cytidine-5'-monophosphono-*N*-acetylneuraminic Acid (CMP-Neu5Ac)

Shingo Makino[a], Yoshihito Ueno[a], Masahide Ishikawa[a], Yoshihiro Hayakawa[b], Tsujiaki Hata*,[a]
[a]Department of Life Chemistry, Tokyo Institute of Technology, 4259 Nagatsuta, Midoriku, Yokohama 227, Japan.
[b]Division of Informatics for Sciences, Graduate School of Human Informatics, Nagoya University, Chikusa, Nagoya 464-01, Japan.

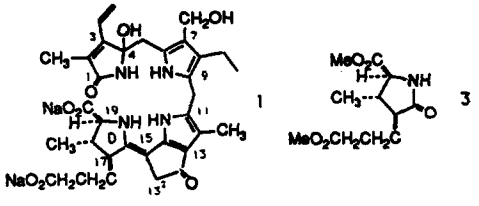


Tetrahedron Lett. **1993**, *34*, 2779

SYNTHESIS AND ABSOLUTE CONFIGURATION OF THE OZONOLYSIS PRODUCT OF KRILL FLUORESCENT COMPOUND F

Hideshi Nakamura,* Yuichi Oba, and Akio Murai
Department of Chemistry, Faculty of Science,
Hokkaido University, Sapporo 060, Japan

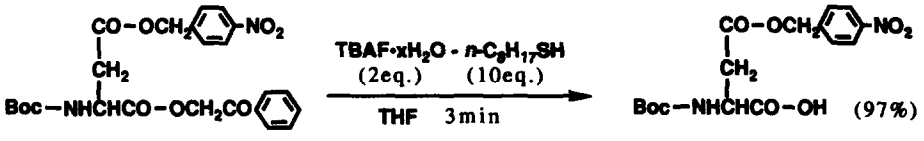
Optically active ozonolysis product (3) of krill fluorescent compound F (1) was synthsized from L-pyroglutamic acid and established absolute configuration of compound F as 17*S*, 18*S*, 19*S* on the basis of the absolute configuration of 3 determined by chromatographic method.



Tetrahedron Lett. **1993**, *34*, 2783

Selective Removal of Phenacyl Ester Group with a TBAF·xH2O - Thiol System from Amino Acid Derivatives Containing Benzyl or 4-Nitrobenzyl Ester

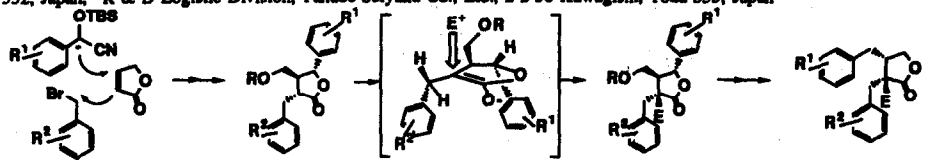
Masaaki Ueki*, Hiroko Aoki, and Tsuyoshi Katoh
Department of Applied Chemistry, Science University of Tokyo, 1-3 Kagurazaka, Shinjuku-ku, Tokyo 162 Japan



Tetrahedron Lett. **1993**, *34*, 2787

A Highly Stereoselective Synthesis of α-Substituted *cis*-α, β-Dibenzyl-γ-butyrolactones

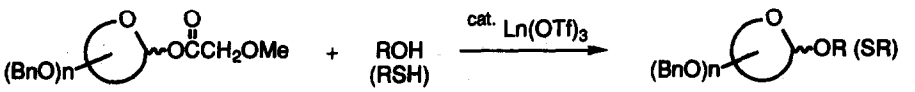
Yasunori Moritani,[a] Chiaki Fukushima,[b] Tsuyoshi Ogiku,[a] Tatsuzo Ukita,[a] Toshikazu Miyagishima,[b] and Tameo Iwasaki*[a]
[a]Department of Synthetic Chemistry, Research Laboratory of Applied Biochemistry, Tanabe Seiyaku Co., Ltd., 3-16-89 Kashima, Yodogawa, Osaka 532, Japan, [b]R & D Logistic Division, Tanabe Seiyaku Co., Ltd., 2-2-50 Kawagishi, Toda 335, Japan



Tetrahedron Lett. **1993**, *34*, 2791

LANTHANOID(III) TRIFLATES AS NEW GLYCOSYLATION CATALYSTS. SELECTIVE AND EFFICIENT ACTIVATION OF 1-*O*-METHOXYACETYL SUGARS

Junji Inanaga,* Yasuo Yokoyama, and Takeshi Hanamoto
Institute for Molecular Science, Myodaiji, Okazaki 444, Japan

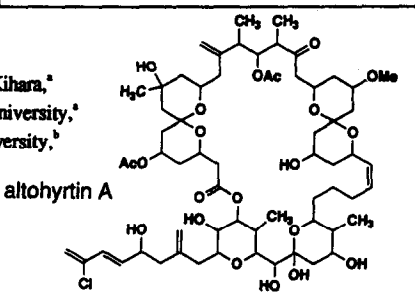


$Tb(OTf)_3$, $Ho(OTf)_3$, $Tm(OTf)_3$, and $Yb(OTf)_3$ were found to have high catalytic activities.

Tetrahedron Lett. **1993**, *34*, 2795

Altohyrtin A, a Potent Anti-tumor Macrolide from the Okinawan Marine Sponge *Hyrtios altum*

Motomasa Kobayashi,[a] Shunji Aoki,[a] Haruhiko Sakai,[a] Kazuyoshi Kawazoe,[a] Noriaki Kihara,[a] Takuma Sasaki[b] and Isao Kitagawa,*[a] Faculty of Pharmaceutical Sciences, Osaka University,[a] Yamada-oka 1-6, Suita, Osaka 565, Japan and Cancer Research Institute, Kanazawa University,[b] Takara-machi 13-1, Kanazawa, Ishikawa 920, Japan



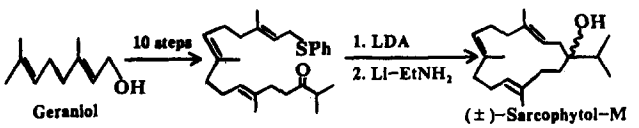
The plane structure and parts of the relative configurations of Altohyrtin A have been elucidated. Altohyrtin A exhibited extremely potent cytotoxicity against KB cells at IC_{50} 0.01 ng/ml.

Tetrahedron Lett. **1993**, *34*, 2799

TOTAL SYNTHESIS OF (±) – SARCOPHYTOL–M

Yulin LI*, Xiangjun YUE and Yucheng XING
The State Key Laboratory of Applied Organic Chemistry, Institute of Organic Chemistry, Lanzhou University, Lanzhou 730000, CHINA

Preparation of (±) – Sarcophytol – M is first presented from geraniol *via* 12 steps by using an important cyclization of intramolecular sulfur – stabilized carbanion and ketone.

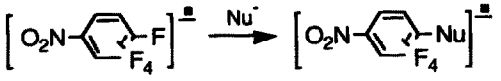


Tetrahedron Lett. **1993**, *34*, 2801

REDUCTIVELY ACTIVATED "POLAR" NUCLEOPHILIC AROMATIC SUBSTITUTION OF PENTAFLUORONITROBENZENE. THE $S_{RN}2$ HYPOTHESIS REVISITED.

Jorge Marquet,* Ziqi Jiang, Iluminada Gallardo, Anna Batlle and Eduard Cayón
Department of Chemistry, Universitat Autònoma de Barcelona. 08193 Bellaterra, Barcelona. Spain.

The reactions between pentafluoronitrobenzene and several nucleophiles, in aqueous media, can be photo- and electro-stimulated (reductively). Our results suggest the involvement of direct attack of the nucleophile on the radical anion of the substrate.

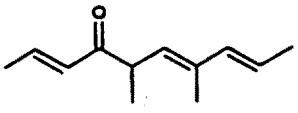


Tetrahedron Lett. **1993**, *34*, 2805

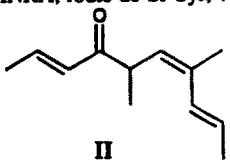
Identification of the Female Sex Pheromone of the Israeli Pine Bast Scale *Matsucoccus josephi*.

Ezra Dunkelblum*, Zvi Mendel, Fabienne Assael and Miriam Harel, Institute of Plant Protection, Volcani Center, Bet Dagan 50250, Israel; Lucien Kerhoas and Jacques Einhorn, Station de Phytopharmacie, INRA, route de St Cyr, 78000 Versailles, France.

Two components I and II, in an approximate ratio of 75:25, were identified as the sex pheromone componets of *Matsucoccus josephi*.



I



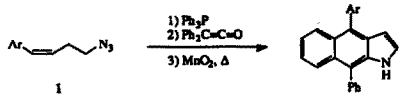
II

Tetrahedron Lett. **1993**, *34*, 2809

ONE-POT CONVERSION OF 4-ARYL-3-BUTENYLAZIDES INTO BENZ[*f*] INDOLES BY A CONSECUTIVE STAUDINGER REACTION / AZA WITTIG REACTION / INTRAMOLECULAR DIELS-ALDER CYCLOADDITION PROCESS

Pedro Molina, Carmen López-Leonardo
Departamento de Química Orgánica, Universidad de Murcia, Campus de Espinardo, E-30071, Murcia, Spain.

Azides 1 by sequential treatment with triphenylphosphine, diphenyketene and further heating in the presence of manganese dioxide led to the tricyclic compounds 2

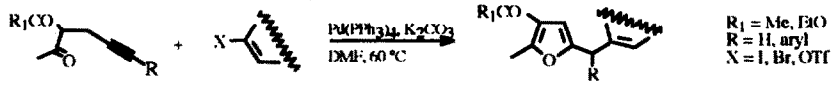


1 2

Tetrahedron Lett. **1993**, *34*, 2813

THE PALLADIUM-CATALYSED SYNTHESIS OF 2,3,5-TRISUBSTITUTED FURANS FROM 2-PROPARGYL-1,3-DICARBONYL COMPOUNDS AND VINYLIC OR ARYL TRIFLATES OR HALIDES

Antonio Arcadi,[a] Sandro Cacchi,[b]* Richard C. Larock,[c]* Fabio Marinelli[d]
[a] Ist. di Chim. Org. della Facoltà di Scienze, Università, P.za della Repubblica 13, I-61020 Urbino, Italy. [b] Dip. di Studi di Chim. e Tecn. delle Sostanze Biol. Attive, Università "La Sapienza", P.le A. Moro 5, I-00185 Roma, Italy. [c] Department of Chem., Iowa State University, Ames, Iowa 50011. [d] Dip. di Chim., Ing. Chim.e Materiali, Università, V. Assergi 4, I-67100 L'Aquila, Italy.

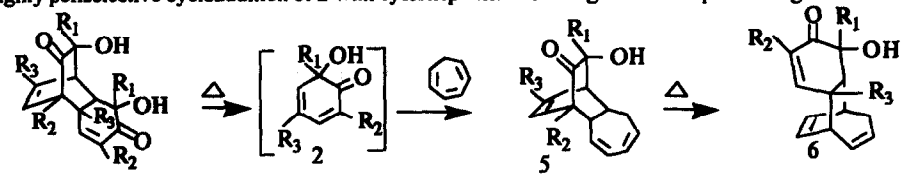


R_1 = Me, EtO
R = H, aryl
X = I, Br, OTf

Tetrahedron Lett. **1993**, *34*, 2817

A Novel Periselective Cycloaddition of Cycloheptatriene with Cyclohexa-2,4-Dienones, Vishwakarma Singh and Mini Porinchu, Department of Chemistry, Indian Institute of Technology, Bombay,400 076 India

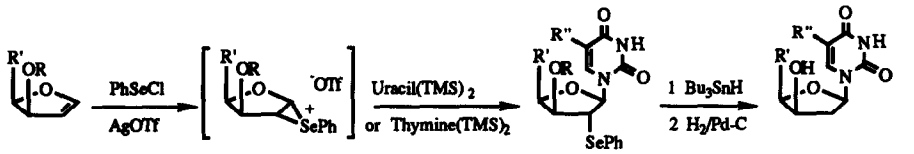
A highly periselective cycloaddition of 2 with cycloheptatriene leading to 6 via Cope rearrangement of 5 is described.



Tetrahedron Lett. **1993**, *34*, 2821

SELENIUM-CONTROLLED STEREOSELECTIVE SYNTHESIS OF 2'-DEOXYNUCLEOSIDES FROM GLYCALS. A FORMAL SYNTHESIS OF AZT

Anas El-Laghdach, Yolanda Díaz, Sergio Castillón,
Departament de Química, Universitat Rovira i Virgili, Pça. Imperial Tarraco 1, 43005 Tarragona, Spain.

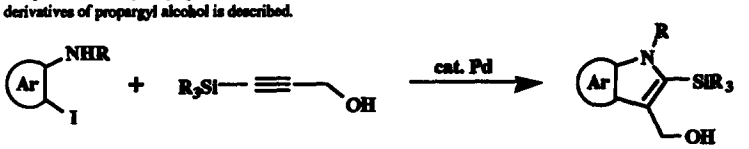


Tetrahedron Lett. **1993**, *34*, 2823

PALLADIUM-CATALYSED SYNTHESIS OF HETEROCONDENSED PYRROLES

David Wesmbo, Ann Eriksson, Torsten Jeschke, Ulf Anaby, Salo Gronowitz*
Division of Organic Chemistry 1, Chemical Center, University of Lund, P.O.B. 124, S-22100 Lund, Sweden
Louis A. Cohen
Laboratory of Chemistry, National Institutes of Health, Bethesda, Maryland 20205, U.S.A.

The palladium-catalysed preparation of some heterocondensed pyrroles from ortho-nitrogen containing hetaryl iodides and derivatives of propargyl alcohol is described.

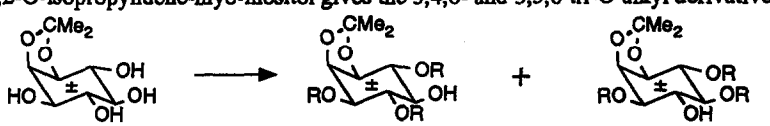


Tetrahedron Lett. **1993**, *34*, 2827

THE ALKYLATION OF DIBUTYLSTANNYLENE DERIVATIVES OF 1,2-O-ISOPROPYLIDENE-*MYO*-INOSITOL.

Jill Gigg, Roy Gigg and Eloisa Martin-Zamora.
Lab. of Lipid and General Chemistry, National Institute for Medical Research, Mill Hill, London NW7 1AA.

Tin-mediated alkylation of 1,2-O-isopropylidene-myo-inositol gives the 3,4,6- and 3,5,6-tri-O-alkyl derivatives as the major products.

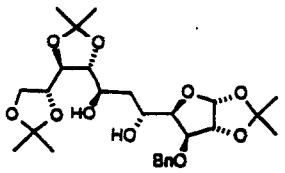


Tetrahedron Lett. **1993**, *34*, 2831

SYNTHESIS OF ELEVEN-CARBON MONOSACCHARIDES USING NITRILE OXIDE/ISOXAZOLINE CHEMISTRY

Karen E. McGhie and R.Michael Paton
Department of Chemistry, The University of Edinburgh, West Mains Road, Edinburgh, EH9 3JJ, UK

The key steps in a novel route to 6-deoxyundecose derivatives, *eg* 1 are cycloaddition of pentose-derived nitrile oxides to ω–unsaturated hexoses and subsequent manipulation of the resulting 2-isoxazolines

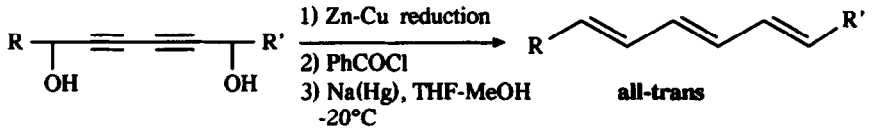


1

Tetrahedron Lett. **1993**, *34*, 2835

Improved Stereoselective Methods of Triene and Diene Synthesis: a Novel Application of Na(Hg).

Guy Solladié*, Guy B. Stone, José-Maria Andrés, Antonio Urbano.
Ecole Européenne des Hautes Etudes des Industries Chimiques,1 rue B.Pascal,F-67008-Strasbourg, France.



Tetrahedron Lett. **1993**, *34*, 2839

PALLADIUM-CATALYZED CARBONYLATION OF (ARYLSULFONYLIMINOIODO)BENZENES TO ARYLSULFONYL ISOCYANATES

Gábor Besenyei and László I. Simándi
Central Research Institute for Chemistry, H-1025 Budapest, P.O.Box 17, Hungary

(Arylsulfonyliminoiodo)benzenes can be converted to arylsulfonyl isocyanates via catalytic carbonylation with CO, using Pd(II) complexes as catalysts under mild conditions (30 - 40 bar, 25°C, CH_2Cl_2):

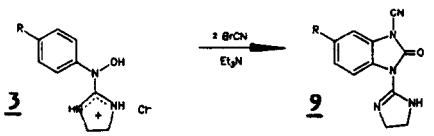
$$ArSO_2N{=}IPh + CO \xrightarrow{PdCl_2(PhCN)_2} ArSO_2NCO + PhI$$

Tetrahedron Lett. **1993**, *34*, 2843

Tandem 1,4-Diaza-3-oxa-Cope Rearrangement - Nucleophilic Addition Reaction. A Route to 2-Oxobenzimidazoles.

Franciszek SACZEWSKI and Tomasz DEBOWSKI, Department of Organic Chemistry, Medical Academy, 80-416 Gdansk, Poland.

3-(4,5-Dihydro-1H-imidazol-2-yl)-2-oxo-2,3-dihydro-benzimidazole-1-carbonitriles **9** are synthesized starting from N-aryl-N-(4,5-dihydro-1H-imidazol-2-yl)hydroxylamine hydrochlorides **3** and cyanogen bromide.



Tetrahedron Lett. **1993**, *34*, 2847

A CONVENIENT SYNTHESIS OF N-PROTECTED DIPHENYL PHOSPHONATE ESTER ANALOGUES OF ORNITHINE, LYSINE, AND HOMOLYSINE.

ROBERT HAMILTON* AND BRIAN J. WALKER, SCHOOL OF CHEMISTRY, DAVID KEIR BUILDING, THE QUEEN'S UNIVERSITY OF BELFAST, BELFAST. BT9 5AG. BRIAN WALKER, DIVISION OF BIOCHEMISTRY, SCHOOL OF BIOLOGY AND BIOCHEMISTRY, 97. LISBURN ROAD, BELFAST. BT9 7BL

Oxidation of Pth-protected amino-alcohols followed by condensation with benzyl carbamate and triphenyl phosphite gives the title compounds differentially protected at nitrogen.