GRAPHICAL ABSTRACTS

Tetrahedron Letters, **1994**, *35*, 1809

[HYDROXY(SULFONYLOXY)IODO]PERFLUOROALKANES - NEW HYPERVALENT IODINE SPECIES AND PROMISING REAGENTS FOR ORGANIC SYNTHESIS. Viktor V. Zhdankin* and Chris Kuehl, Chemistry Department, University of Minnesota-Duluth, Duluth, Minnesota 55812 USA

Perfluoroalkyliodoso sulfonates **3** can be prepared in two steps from the corresponding perfluoroalkyliodides **1** by oxidation with pertrifluoroacetic acid and subsequent reaction with $TsOH{\bullet}H_2O$ or Me_3SiOTf.

$$\underset{\mathbf{1}}{C_nF_{2n+1}I} \xrightarrow[-78^\circ \text{ to RT}]{CF_3CO_3H} \underset{\mathbf{2}}{C_nF_{2n+1}I(CO_2CF_3)_2} \xrightarrow[]{\substack{Me_3SiOSO_2CF_3 \\ \text{or } TsOH{\bullet}H_2O}} C_nF_{2n+1}I(OH)OSO_2R$$

3: $n = 3,4,6$; $R = p\text{-}MeC_6H_4, CF_3$

Tetrahedron Letters, **1994**, *35*, 1813

UV INITIATED ADDITION OF IODO-DIFLUOROMETHYL KETONES TO ELECTRON-DEFICIENT OLEFINS. Zai-Ming Qiu and Donald J.Burton*, Department of Chemistry, The University of Iowa, Iowa City, IA 52242, U.S.A.

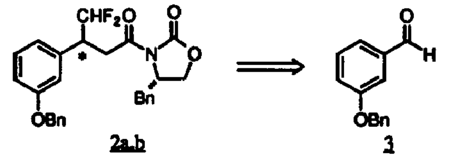
$$R\overset{O}{\overset{\|}{C}}CF_2I + CH_2{=}CHCOR' \xrightarrow[RT]{h\nu} R\overset{O}{\overset{\|}{C}}CF_2CH_2\overset{I}{\overset{|}{C}}HCOR' \quad \text{(50-81\% isolated yield)}$$

R: Ph, n-C_4H_9, n-C_6H_{13}, $ClCF_2$; R': EtO, *n*-C_4H_9O, *t*-C_4H_9O, Me_2N

High yields of α,α-difluoro-γ-iodo-γ-(electron-withdrawing-group) substituted ketones were obtained by the reaction of iododifluoromethyl ketones with a series of electron-deficient alkenes under UV irradiation.

Tetrahedron Letters, **1994**, *35*, 1817

Fluorinated Amino Acids. Part 2: Synthesis of Diastereomeric N-Acyloxazolidinone Precursors. Jeffrey S. Sabol* and Ian A. McDonald#,
Marion Merrell Dow Research Institute, 2110 East Galbraith Rd, Cincinnati, OH, 45215,
SIBIA, 505 Coast Boulevard South, La Jolla, CA, 92037-4641.

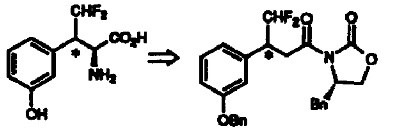


2a,b 3

Diastereomers 2a,b are readily prepared from 3-benzyloxybenzaldehyde (3)

Tetrahedron Letters, **1994**, *35*, 1821

Fluorinated Amino Acids. Part 3: Synthesis of β-Difluoromethyl-m-tyrosine. Jeffrey S. Sabol*, Nicholas W. Brake and Ian A. McDonald#,
Marion Merrell Dow Research Institute, 2110 East Galbraith Rd, Cincinnati, OH, 45215,
SIBIA, 505 Coast Boulevard South, La Jolla, CA, 92037-4641.



1a,b 2a,b

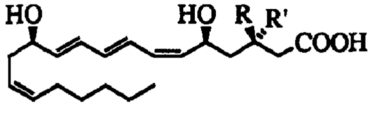
The absolute configuration of 2a and 2b is assigned and the synthesis of 1a,b is reported.

Tetrahedron Letters, **1994**, *35*, 1825

TOTAL SYNTHESIS OF THE ETHANOL INDUCIBLE, PRO-INFLAMMATORY AUTACOID 3(S)-HYDROXY-LEUKOTRIENE B_4 (3-OH-LTB_4) AND ANALOGUES

K. Chauhan[1], R.K. Bhatt[1], J.R. Falck*[1], J. H. Capdevila[2]
[1]Depts. of Molecular Genetics/Pharmacology, UT Southwestern, Dallas, TX 75235;
[2]Depts. of Medicine/Biochemistry, Vanderbilt Univ. Med. School, Nashville, TN 37205

3(S)-Hydroxy-Leukotriene B_4 (**1a**), its 3(R)-epimer **1b**, and a 14,15-acetylenic analogue were efficiently prepared via chelation-controlled reduction of ketone **12**, obtained by acetylide addition to chiral β-hydroxylactones **7/9**.

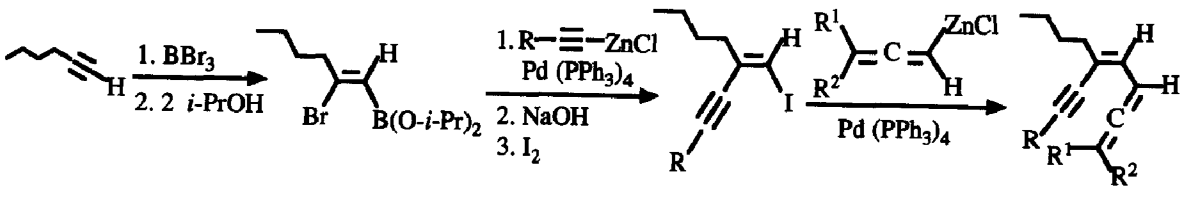


1a : R = H, R' = OH **b** : R = OH, R' = H

Tetrahedron Letters, **1994**, *35*, 1829

A CONVENIENT PROCEDURE FOR THE SYNTHESIS OF ENYNE-ALLENES.

Kung K. Wang* and Zhongguo Wang,
Department of Chemistry, West Virginia University, Morgantown, West Virginia 26506 USA

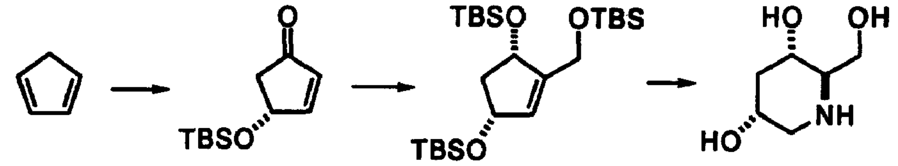


Tetrahedron Letters, **1994**, *35*, 1833

CHEMOENZYMATIC SYNTHESIS OF 1,3-DIDEOXY-NOJIRIMYCIN

Carl R. Johnson,* Adam Golebiowski, Matthew P. Braun and Hari Sundram, Department of Chemistry, Wayne State University, Detroit MI 48202 USA

Cyclopentadiene was transformed via $^1O_2$ cycloaddition, *Candida antarctica* lipase B asymmetrization, Pd(0)-mediated CO coupling, ozonolysis and reductive amination to enantiopure 1,3-dideoxynojirimycin.

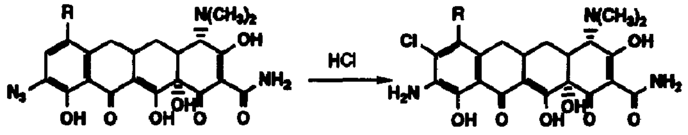


Tetrahedron Letters, **1994**, *35*, 1835

SYNTHESIS OF NOVEL TETRACYCLINE DERIVATIVES WITH SUBSTITUTION AT THE C-8 POSITION

Phaik-Eng Sum*, Ving J. Lee, and Francis P. Tally
Infectious Diseases and Molecular Biology Research Section, Medical Research Division, American Cyanamid Company, Pearl River, New York 10965

The C-8 functionalization of tetracycline derivativesvia acid-catalyzed rearrangement of 7(or 9)azidotetracyclines is described. These compounds are the first to be prepared from an intact tetracycline nucleus.

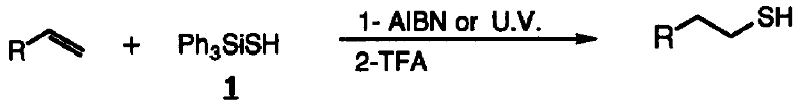


Tetrahedron Letters, **1994**, *35*, 1837

Free-Radical Addition to Olefins of an H_2S Equivalent: Triphenylsilanethiol.

Bruno Haché and Yves Gareau*Merck Frosst Centre for Therapeutic Research, P.O. Box 1005, Pointe-Claire-Dorval, Québec, Canada H9R 4P8

The triphenylsilylthiyl radical generated thermally (AIBN) or photochemically in the presence of an olefin yields the anti-Markovnikov H_2S adduct after deprotection by trifluoroacetic acid

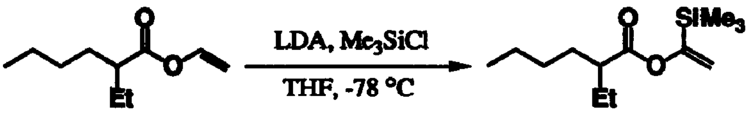


Tetrahedron Letters, **1994**, *35*, 1841

A Simple Route to Acylsilane Enol Esters from Enol Esters

Stephen W. Wright **Pfizer Central Research, Eastern Point Road, Groton, CT 06340**

A new methodology is described for the synthesis of enol esters of acylsilanes, from readily available enol esters. A solution of LDA is added to a mixture of an enol ester (preferably sterically congested, with only one α - carboxyl proton, eg 2-ethylhexanoate) and a chlorosilane at -78 °C.

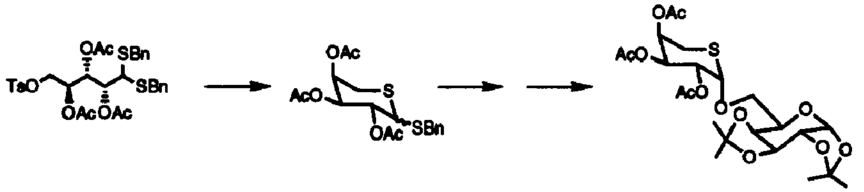


Tetrahedron Letters, **1994**, *35*, 1843

Synthesis of 5-Thioaldopentopyranoside via Dithioacetal Rearrangement and Glycosidation to give Pseudodisaccharides.

Carole Lepine, Caroline Roy and Daniel Delorme*
Merck Frosst Centre for Therapeutic Research P.O. Box 1005, Pointe Claire- Dorval, Quebec H9R 4P8, Canada.

Rearrangement of protected 5-O-p-toluenesulfonyl-L-arabinose and D-lyxose dibenzyl dithioacetal gave their corresponding benzyl 1,5-dithiopyranoside which after glycosidation led to pseudodisaccharide.

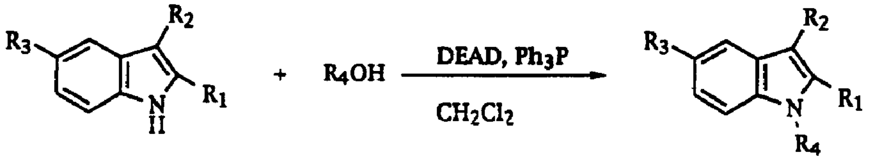


Tetrahedron Letters, **1994**, *35*, 1847

N-ALKYLATION OF INDOLE RING USING MITSUNOBU REACTION

Shripad S. Bhagwat* and Candido Gude
Research Department, CIBA-GEIGY Corporation, 556 Morris Avenue, Summit, New Jersey 07901

Indole rings substituted with two electron withdrawing groups were alkylated on the nitrogen under Mitsunobu reaction conditions.

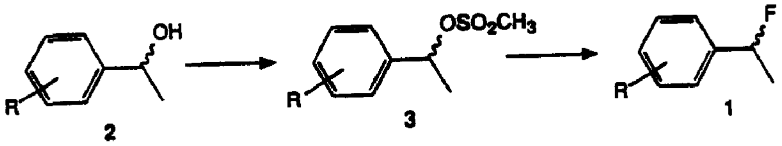


Tetrahedron Letters, **1994**, *35*, 1851

SYNTHESIS OF OPTICALLY ACTIVE 1-FLUOROALKYL BENZENES

Elke Fritz-Langhals, Consortium für Elektrochemische Industrie GmbH,
Central Research Company of Wacker-Chemie GmbH, Zielstattstraße 20, D-81379 München, Germany

Optically active methanesulfonates 3 prepared from the corresponding alcohols 2 were transformed into optically active 1-fluoroalkyl benzenes 1 by use of cesium fluoride / N-methylformamide.

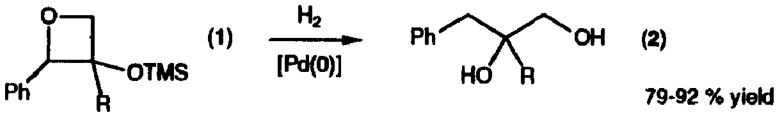


Tetrahedron Letters, **1994**, *35*, 1855

REGIOSELECTIVE CARBOHYDROXYLATION OF ENOL ETHERS BY A PHOTOCYCLOADDITION-HYDROGENATION SEQUENCE

Thorsten Bach, Organisch-Chemisches Institut der Universität, Orléansring 23, D-48149 Münster, Germany

2-Phenyl-3-silyloxy-oxetanes 1 can be reductively cleaved by catalytic hydrogenation to yield the diols 2.

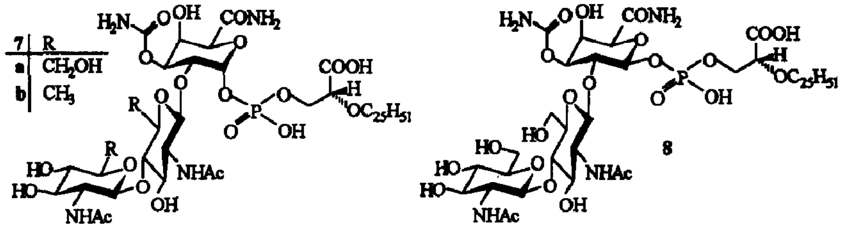


Tetrahedron Letters, **1994**, *35*, 1859

Moenomycin-Type Transglycosylase Inhibitors: Inhibiting Activity vs. Topology around the Phosphoric Acid Diester Group

Joachim Lüning[a], Astrid Markus[b], Peter Welzel[a]*

[a]Fakultät für Chemie der Ruhr-Universität
D-44780 Bochum (Germany)
[b]Hoechst AG, D-65926 Frankfurt
(Germany)

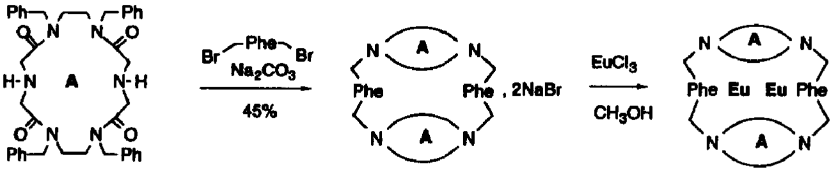


The correct configuration at C-1 of the uronamide carrying the phosphate group as in 7 is essential for antibiotic activity.

Tetrahedron Letters, **1994**, *35*, 1863

MACROBICYCLIC AND MACROTRICYCLIC TETRALACTAMS WITH 1,10-PHENANTHROLINE UNITS. DINUCLEAR Eu^{3+} CRYPTATE OF THE MACROTRICYCLIC LIGAND

Bernard Cathala, Louis Cazaux*, Claude Picard and Pierre Tisnès
Synthèse et physicochimie organique, Université Paul Sabatier, 31062 TOULOUSE (FRANCE)

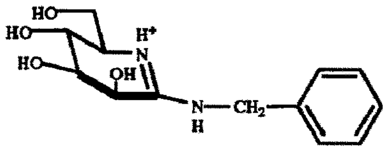


Tetrahedron Letters, **1994**, *35*, **1867**

SYNTHESIS OF A BENZYLAMIDINE DERIVED FROM D-MANNOSE. A POTENT MANNOSIDASE INHIBITOR.

Yves Blériot, Arnaud Genre-Grandpierre and Charles Tellier*,
Laboratoire de RMN et Réactivité Chimique associé au CNRS . Faculté des Sciences et des Techniques.
2, rue de la Houssinière 44072 Nantes, France

The synthesis of a potent mannosidase inhibitor with a hydrophobic aglycone part is described and its effect on various glycosidases evaluated.

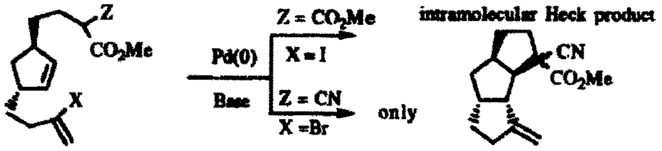


Tetrahedron Letters, **1994**, *35*, **1871**

A GENERAL SOLUTION TO THE SYNTHESIS OF TRIQUINANES BY A PALLADIUM CATALYZED PROCESS.

P.Vittoz, D.Bouyssi, C.Traversa, J.Gore and G.Balme*.
Laboratoire de Chimie Organique 1, Université Claude Bernard, ESCIL, 43 bd du 11 Novembre 1918, 69622 Villeurbanne Cédex.

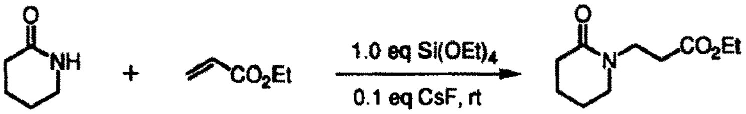
Two structural factors (nature of the nucleophile and of the vinylic halide) play an important role in this generalization.



Tetrahedron Letters, **1994**, *35*, **1875**

Conjugate Addition of Amides to α,β-Unsaturated Esters by CsF-Si(OEt)$_4$ System

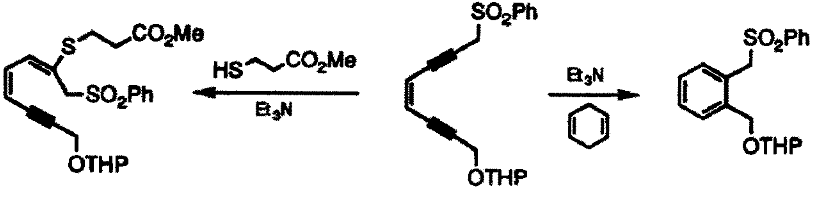
Kyo Han Ahn* and Seok Jong Lee
Department of Chemistry, POSTECH, San 31 Hyoja Dong, Pohang 790-784, Republic of Korea



Tetrahedron Letters, **1994**, *35*, **1879**

BIRADICAL FORMATION FROM MOLECULES WITH (Z)-7-SULFONYL-3-HEXEN-1,5-DIYNE FUNCTIONALITIES

Ming-Jung Wu[a,b,*], Chi-Fong Lin[b], Jiun-Sheng Wu[a], and Huey-Ting Chen[b]
a) School of Chemistry, b) Graduate Institute of Pharmaceutical Sciences, Kaohsiung Medical College, Kaohsiung, Taiwan, Republic of China

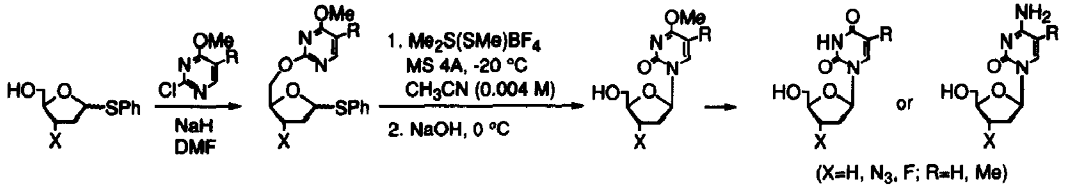


Tetrahedron Letters, **1994**, *35*, 1883

Stereocontrolled Synthesis of Pyrimidine 2',3'-Dideoxy-β-nucleosides by Intramolecular Glycosylation

Keiko Sujino and Hideyuki Sugimura*
The Noguchi Institute, 1-8-1, Kaga, Itabashi-ku, Tokyo 173, Japan

β-2',3'-Dideoxynucleosides and their 3'-azido and 3'-fluoro substituted derivatives were synthesized in a stereocontrolled manner.

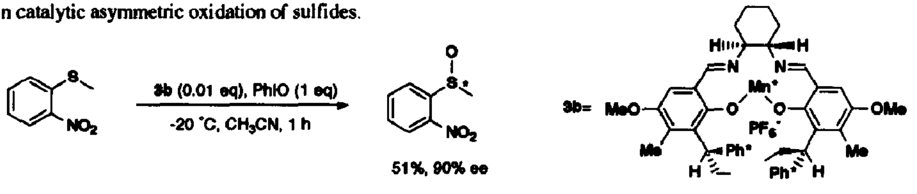


Tetrahedron Letters, **1994**, *35*, 1887

ASYMMETRIC OXIDATION OF SULFIDES USING (SALEN)MANGANESE(III) COMPLEX AS A CATALYST

Kenji Noda, Naoki Hosoya, Koichi Yanai, Ryo Irie, and Tsutomu Katsuki*
Department of Chemistry, Faculty of Science, Kyushu University 33, Hakozaki, Higashi-ku, Fukuoka 812, Japan

Chiral (salen)manganese(III) complex (**3b**) was found to show high asymmetric induction up to 90% ee in catalytic asymmetric oxidation of sulfides.

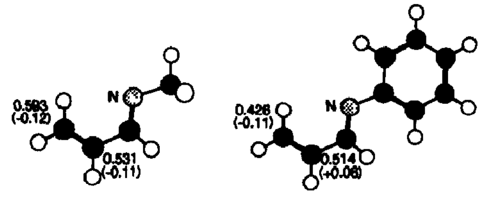


Tetrahedron Letters, **1994**, *35*, 1891

ORIGIN OF REGIOSELECTIVITY IN ELECTROPHILIC REACTION OF AMBIDENT ENALDIMINES

K. Tomioka,* T. Okamoto, M. Kanai, and H. Yamataka, The Institute of Scientific and Industrial Research, Osaka University, Ibaraki, Osaka 567, Japan

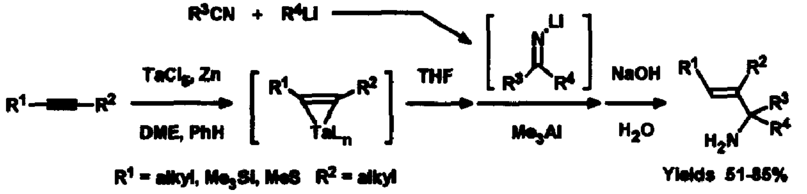
The relative magnitude of LUMO coefficients clearly rationalizes the substituent-dependent inversion of regioselectivity in nucleophilic addition to ambident alkyl- and arylimines of α,β-unsaturated aldehydes.



Tetrahedron Letters, **1994**, *35*, 1893

STEREOSELECTIVE PREPARATION OF PRIMARY (*E*)-ALLYLIC AMINES BY THE REACTION OF TANTALUM-ALKYNE COMPLEXES WITH METALLO-IMINES.

K. Takai,* H. Odaka, Y. Kataoka, K. Utimoto,* Division of Material Chemistry, Faculty of Engineering, Kyoto University, Yoshida, Kyoto 606-01, Japan



Primary (*E*)-allylic amines having adjacent tertiary carbons are produced from three components, acetylenes, nitriles, and organolithium compounds.

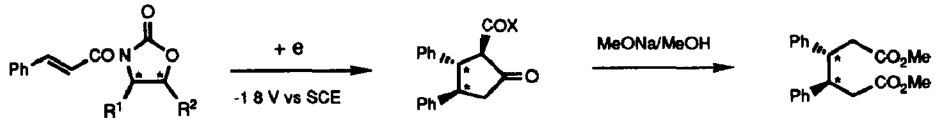
Tetrahedron Letters, **1994**, *35*, 1897

Enantioselective Synthesis of Dimethyl 3,4-Diphenyladipate by Electroreductive Hydrocoupling of Chiral *N-trans*-Cinnamoyl-2-oxazolidones

Naoki Kise,* Mitsuaki Echigo, and Tatsuya Shono

Division of Synthetic Chemistry and Biological Chemistry, Graduate School of Engineering, Kyoto University, Yoshida, Sakyo, Kyoto 606-01, Japan

Dimethyl (*3R,4R*)- and (*3S,4S*)-diphenyladipate were synthesized enantioselectively by electroreductive intermolecular hydrocoupling of chiral *N-trans*-cinnamoyl-2-oxazolidones in acetonitrile and subsequent methanolysis.



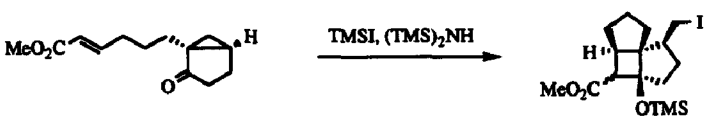
Tetrahedron Letters, **1994**, *35*, 1901

Construction of Polycyclic Ring Systems Fused to Cyclobutane by Sequential Three Reactions, Ring Opening of Cyclopropane-Michael-Aldol Reaction Sequence

Masataka Ihara, Takahiko Taniguchi, and Keiichiro Fukumoto*

Pharmaceutical Institute, Tohoku University, Aobayama, Sendai 980, Japan

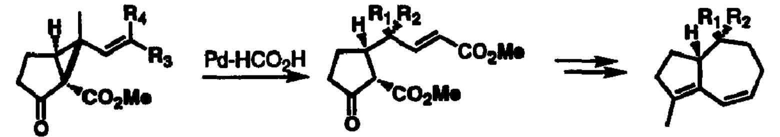
Polycyclic cyclobutanes were synthesizes from cyclopropyl ketones by the treatment with TMSI in the presence of $(TMS)_2NH$.



Tetrahedron Letters, **1994**, *35*, 1905

Stereoselective Synthesis of (±)-Clavukerin A and (±)-Isoclavukerin A Based on Palladium-catalyzed Reductive Cleavage of Alkenylcyclopropanes with Formic Acid. Isao Shimizu* and Tomoko Ishikawa, Department of Applied Chemistry, School of Science and Engineering, Waseda University, Ookubo 3-4-1, Shinjuku-ku, Tokyo 169, Japan.

(±)-Clavukerin A [(±)-**1a**] and (±)-Isoclavukerin A [(±)-**1b**] were synthesized stereoselectively utilizing stereospecific palladium-catalyzed hydrogenolysis of alkenylcyclopropanes with formic acid.



2a: R_3=CO_2Me, R_4=H
2b: R_3=H, R_4=CO_2Me

3a: R_1=Me, R_2=H
3b: R_1=H, R_2=Me

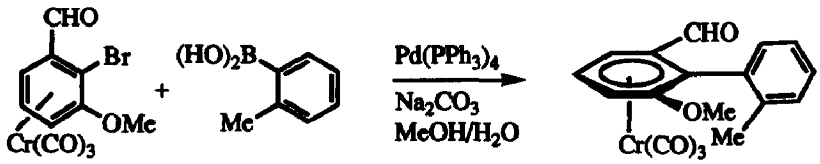
(±)-**1a**: R_1=Me, R_2=H
(±)-**1b**: R_1=H, R_2=Me

Tetrahedron Letters, **1994**, *35*, 1909

Mono-$Cr(CO)_3$ Complexes of Biphenyl Compounds: Cross-Coupling Reactions of (η6-Arene)chromium Complexes with Arylmetals

M. Uemura*, H. Nishimura, K. Kamikawa, K. Nakayama, Y. Hayashi

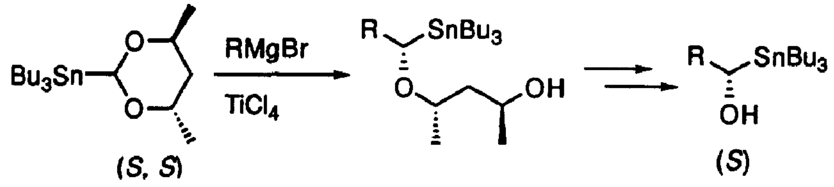
Faculty of Science, Osaka City University, Sugimoto, Sumiyoshi, Osaka 558, Japan



Tetrahedron Letters, **1994**, *35*, 1913

A PRACTICAL SYNTHETIC METHOD FOR ENANTIO-ENRICHED α-HYDROXYSTANNANES.

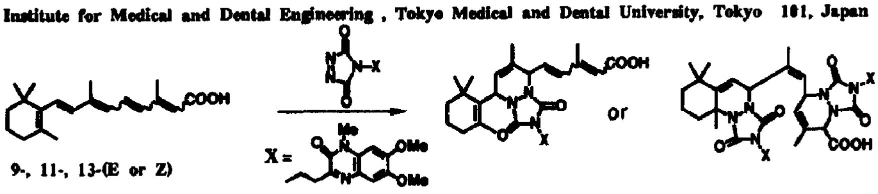
Katsuhiko Tomooka, Tatsuya Igarashi, and Takeshi Nakai*,
Department of Chemical Technology, Tokyo Institute of Technology, Meguro-ku, Tokyo 152, Japan



Tetrahedron Letters, **1994**, *35*, 1917

REACTION OF GEOMETRICAL ISOMERS OF RETINOIC ACID WITH 1,2,4-TRIAZOLINE-3,5-DIONE HAVING FLUORESCENT CHROMOPHORE

Masato Shimizu, Kyoko Yaguchi, Yukiko Iwasaki and Sachiko Yamada*
Institute for Medical and Dental Engineering , Tokyo Medical and Dental University, Tokyo 101, Japan

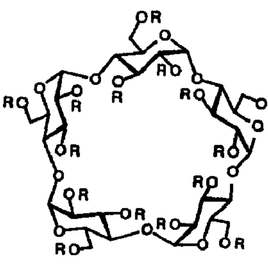


Tetrahedron Letters, **1994**, *35*, 1921

The Stereoselective Synthesis of Cyclomaltopentaose. A Novel Cyclodextrin Homologue with D.P. Five.

Toshio Nakagawa*, Koji Ueno, Mariko Kashiwa, and Junko Watanabe
Department of Chemistry, Yokohama City University,
22-2 Seto, Kanazawa-ku, Yokohama 236, Japan.

The title compound (**1**) ***and its per-O-acetate*** (**1'**) ***were firstly synthesized by successive, stereoselective glycosidations and cyclization, using participation of the N-phenylcarbamoyl group at O-6 of glycosyl donors.***

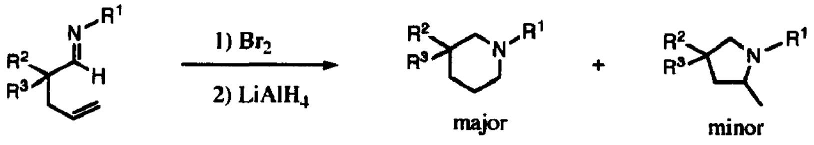


1 : R = H
1': R = Ac

Tetrahedron Letters, **1994**, *35*, 1925

ELECTROPHILE-INDUCED CYCLIZATION OF γ,δ-ALKENYLIMINES AS A SYNTHETIC ROUTE TO PYRROLIDINES AND PIPERIDINES

N. De Kimpe, M. Boelens, J. Piqueur, J. Baele, Department of Organic Chemistry, University of Gent, Faculty of Agricultural and Applied Biological Sciences, B-9000 Gent, Belgium



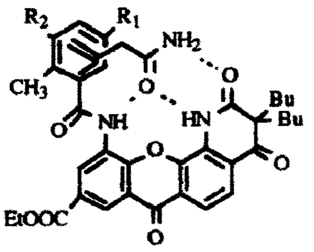
Tetrahedron Letters, **1994**, *35*, 1929

CLEFT TYPE RECEPTORS WITH CATALYTIC ACTIVITY IN AMIDE DEUTERATION

Mercedes Crego, César Raposo, Mª Luisa Mussons.
Mª Cruz Caballero and Joaquín R. Morán.
Departamento de Química Orgánica, Universidad de Salamanca, 37008 Salamanca, Spain.

Three amide receptors with a significant catalytic activity in α-deuteration have been prepared.

receptors	R_1	R_2
1	NO_2	NO_2
3	SO_2NHBu	H
5	SO_2NHBu	NO_2

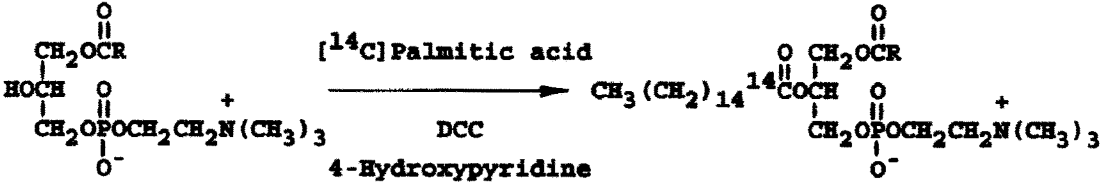


Tetrahedron Letters, **1994**, *35*, 1933

A NOVEL CATALYST FOR O-ACYLATION IN LIPID CHEMISTRY

Elena L. Vodovozova and Julian G.Molotkovsky
Shemyakin & Ovchinnikov Institute of Bioorganic Chemistry
Russian Academy of Sciences, Miklukho-Maklaya 16/10, Moscow 117871

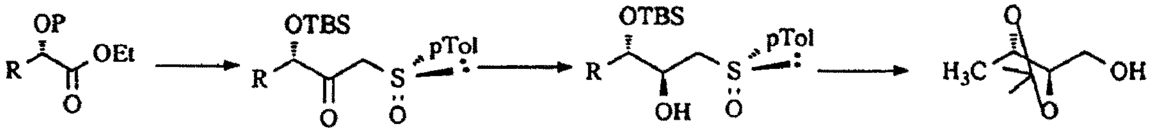
A convenient method for small-scale synthesis of phospholipid derivatives in a one-pot system is proposed.



Tetrahedron Letters, **1994**, *35*, 1937

ASYMMETRIC SYNTHESIS MONITORED BY CHIRAL SULFOXIDES : SYN AND ANTI FUNCTIONALIZED 1,2-DIOLS FROM α-HYDROXY-ESTERS.

Guy Solladié*, Antonio Almario
Ecole Européenne des Hautes Etudes des Industries Chimiques, 1 rue B.Pascal, F-67008-Strasbourg, France.



The reduction of β-keto δ-alkoxysulfoxides made from chiral α-hydroxyesters, afforded after desulfurization optically active syn and anti 1,2-diols

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Tetrahedron Letters, **1994**, *35*, 1941

1-IODO-POLYFLUOROALKANES FROM POLYFLUOROALKOXY TRIMETHYLSILANES AND IODOCHLOROTRIPHENYLPHOSPHORANE.

Vittorio Montanari[*a], Silvio Quici[b], Giuseppe Resnati[a].
a) CNR, Centro Studio Sostanze Organiche Naturali, Politecnico, and b) CNR, Centro Studio Sintesi e Stereochimica Speciali Sistemi Organici, Milano, Italy.

The title compounds **4** are obtained pure by a new, simple method.

$$\underset{\mathbf{2a\text{-}f}}{R_fCH_2OSiMe_3} + \underset{\mathbf{3}}{Ph_3PICl} \xrightarrow[-\,Me_3SiCl]{} \underset{\mathbf{5}}{[R_fCH_2OPPh_3]^+I^-} \xrightarrow[-\,Ph_3P=O]{\Delta} \underset{\mathbf{4a\text{-}f}}{R_fCH_2I}$$

Tetrahedron Letters, **1994**, *35*, 1945

FULLERENE C_{60} AND C_{70} PHOTO SENSITIZED OXYGENATION OF OLEFINS

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