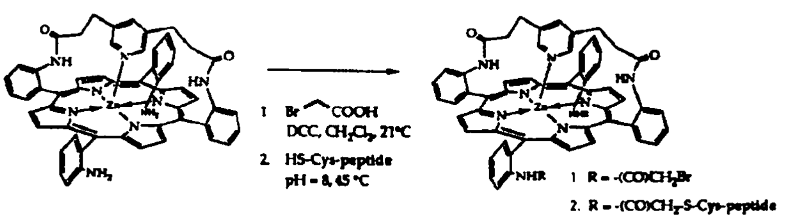
Tetrahedron Letters, **1994**, *35*, 6191

A GENERAL METHOD FOR COUPLING UNPROTECTED PEPTIDES TO BROMOACETAMIDO PORPHYRIN TEMPLATES

Christin T. Choma[1], Karen Kaestle[2], Karin Åkerfeldt[3], Ronald Kim[2], John Groves[2] and William DeGrado[1,4]. [1]DuPont Merck Pharmaceuticals, Experimental Station, Wilmington, DE 19880-0328, USA; [2]Department of Chemistry, Princeton University, Princeton, NJ 08544, USA; [3]Department of Chemistry, Rutgers University, Camden, NJ 08102, USA; [4]Johnson Research Foundation, University of Pennsylvania Medical School, Philadelphia, PA 19104, USA.

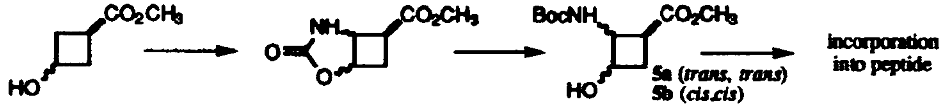


Tetrahedron Letters, **1994**, *35*, 6195

THE SYNTHESIS OF CYCLOBUTANOL-CONTAINING DIPEPTIDE ANALOGUES

Ping Yuan, Mark R. Driscoll, Susan J. Raymond, and David E. Hansen,* Department of Chemistry, Amherst College, Amherst, MA 01002 USA
Richard A. Blatchly, Department of Chemistry, Keene State College, Keene, NH 03431 USA

The dipeptide analogue methyl *trans*-2-[(*t*-butoxycarbonyl)amino]-*trans*-3-hydroxycyclobutanecarboxylate (**5a**) and its *cis,cis*-isomer (**5b**) have been synthesized, and each has been incorporated into a longer peptide sequence. These peptide derivatives will be used as immunogens in an attempt to elicit antibodies with sequence-specific peptidase activity.

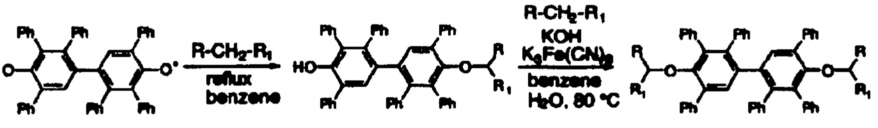


Tetrahedron Letters, **1994**, *35*, 6199

Carbon - Oxygen Coupling Reactions with 2,2',3,3',5,5'-Hexaphenyl-(1,1'-biphenyl)-4,4'-dioxyl.

Gennaro Barbiero, Whan-Gi Kim, and Allan S. Hay*
Department of Chemistry, McGill University, 801 Sherbrooke St. W., Montréal, Québec, Canada H3A2K6

Reaction of 2,2',3,3',5,5'-hexaphenyl-(1,1'-biphenyl)-4,4'-dioxyl with methylene groups leads to novel carbon-oxygen coupled compounds.



R, R_1 = Ph, SPh, OPh, HNPh, CH_3, allylic and aliphatic ethers

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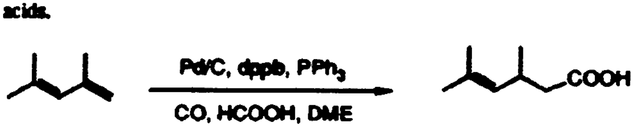
Tetrahedron Letters, **1994**, *35*, 6203

SYNTHESIS OF UNSATURATED ACIDS BY 1,2-ADDITION OF FORMIC ACID TO CONJUGATED DIENES CATALYZED BY PALLADIUM ON CARBON IN THE PRESENCE OF MONO AND BIDENTATE PHOSPHINES.

G. Vasapollo, A. Somasunderam, B. El Ali and H. Alper*. Department of Chemistry, University of Ottawa, 10 Marie Curie, Ottawa, Ontario, K1N 6N5 Canada

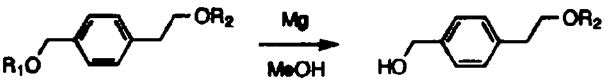
Di- and Trisubstituted 1,3-dienes react with CO and HCOOH in the presence of catalytic amounts of Pd/C, PPh_3, and $Ph_2P(CH_2)_4PPh_2$ (dppb) to give γ,δ-unsaturated acids.



Tetrahedron Letters, **1994**, *35*, 6207

Selective Deprotection of Esters Using Magnesium and Methanol

Yao-Chang Xu[*, a], Elaine Lebeau[b], Clint Walker[a] a: Lilly Research Laboratories,
Lilly Corporate Center, Indianapolis, IN 46285 b: BioChem Pharma Inc., 531 Blvd. des Prairies, Laval, Quebec, H7V 1B7



R_1= PNB;	R_2= Ac, Bz, Pv	68-99%
R_1= Ac;	R_2= Bz, Pv	76-92%
R_1= Bz;	R_2= Pv	94%

The magnesium metal in methanol can efffect selective cleavage of alkyl esters. The order of the reactivity of this reagent towards acyl cleavages was found to be: *p*-nitrobenzoate > acetate > benzoate > pivaloate >> trifluroacetamide.

Tetrahedron Letters, **1994**, *35*, 6211

Alumina as Reagent. The One-step Conversion of Benzyl Chloride and Bromide into Dibenzyl Ether

George Hondrogiannis, Lay Choo Tan, Richard M. Pagni,*
George W. Kabalka,* Sherry Herold, Emily Ross, James Green and Michael McGinnis,
Department of Chemistry University of Tennessee, Knoxville, TN 37996-1600 U.S.A.

$$C_6H_5CH_2X \xrightarrow{Al_2O_3} (C_6H_5CH_2)_2O$$

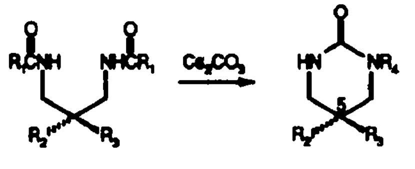
X = Cl or Br

The title reaction yields dibenzyl ether in good yield.

Tetrahedron Letters, **1994**, *35*, 6215

CYCLIZATION OF BIS-URETHANES AS A NEW METHOD FOR THE SYNTHESIS OF 5-SUBSTITUTED, 6-MEMBERED CYCLIC UREAS. Kathy J. Fordon, Christopher G. Crane, and Cynthia J. Burrows*, Department of Chemistry, State University of New York at Stony Brook, Stony Brook, NY 11794-3400, USA.

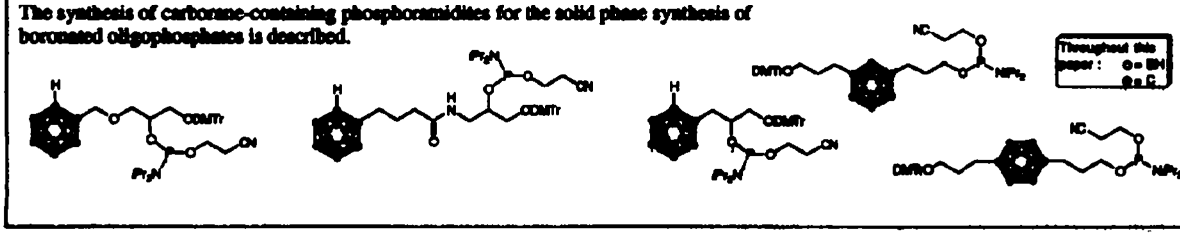
The title compounds were prepared from urethane derivatives of 1,3-diaminopropane via cyclization mediated by Cs_2CO_3.



Tetrahedron Letters, **1994**, *35*, 6217

SYNTHESIS OF NEW BUILDING BLOCKS FOR BORON-RICH OLIGOMERS IN BORON NEUTRON CAPTURE THERAPY. I. K. Drechsel, C. S. Lee, E. W. Leung, R. R. Kane and M. F. Hawthorne,* University of California, Los Angeles, 405 Hilgard Ave, Los Angeles, CA 90024, USA; Technische Hochschule Aachen, D-52062 Aachen, Germany

The synthesis of carborane-containing phosphoramidites for the solid phase synthesis of boronated oligophosphates is described.

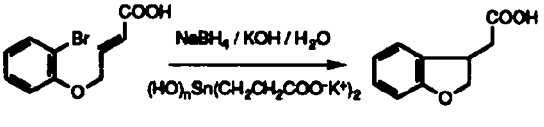


Tetrahedron Letters, **1994**, *35*, 6221

REDUCTIONS AND RADICAL CYCLIZATIONS OF ARYL AND ALKYL BROMIDES MEDIATED BY $NaBH_4$ IN AQUEOUS BASE

Roopa Rai and David B. Collum*, Department of Chemistry, Baker Laboratory, Cornell University, Ithaca, N.Y. 14853-1301

$NaBH_4$ in conjunction with a base-soluble dialkyltin(IV) reagent and 4,4'-azobis(4-cyanovaleric acid) (ACVA) mediates reductions and free radical cyclizations of alkyl- and aryl bromides in aqueous base. The aryl bromides reduce more slowly under tin-free conditions using $NaBH_4$-ACVA.



Tetrahedron Letters, **1994**, *35*, 6225

REACTIVITY OF PERFLUORO-*N*-ALKYL RADICALS. A HAMMETT STUDY OF HYDROGEN TRANSFER FROM ARENE THIOLS.

William R. Dolbier, Jr. and Xiao X. Rong, Department of Chemistry, University of Florida, Gainesville, FL 32611

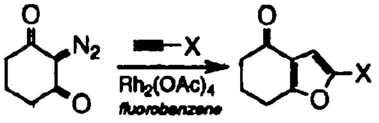
A good correlation with σ^+ is found in a study of rates of reduction of perfluoro-*n*-heptyl radical with arene thiols.

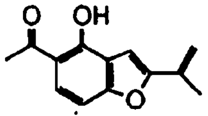
$$n\text{-}C_7F_{15}^{\bullet} \quad + \quad \text{Ar-S-H} \quad \xrightarrow[\rho+ = -0.56]{k_H} \quad n\text{-}C_7F_{15}\text{-H}$$

Tetrahedron Letters, **1994**, *35*, 6229

Dipolar Cycloaddition of Cyclic Rhodium Carbenoids to Digonal Carbon. Synthesis of Isoeuparin

Michael C. Pirrung,* Jiancun Zhang, and Andrew T. Morehead, Jr.
Department of Chemistry, Duke University
P. M. Gross Chemical Laboratory
Durham, North Carolina 27708-0346 USA





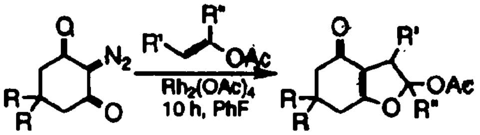
isoeuparin

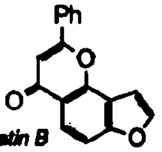
Diazocyclohexanediones undergo dipolar cycloadditions with substituted acetylenes to provide 2-substituted tetrahydrobenzofuran-4-ones and with allenes to provide 2(H)-3-methylenedihydrofuranones.

Tetrahedron Letters, **1994**, *35*, 6231

Dipolar Cycloaddition of Rhodium Carbenoids with Vinyl Esters. Total Synthesis of Pongamol and Lanceolatin B.

Michael C. Pirrung* & Yong Rok Lee
Department of Chemistry, Duke University
P. M. Gross Chemical Laboratory
Durham, North Carolina 27708-0346 USA





lanceolatin B

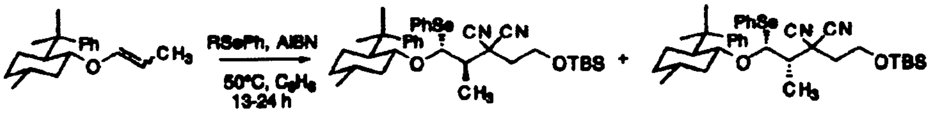
A new method for dipolar cycloaddition of diazocyclohexane-1,3-diones to vinyl esters, leading to benzofuran derivatives, has been applied to total syntheses of natural products from *Tephrosia* and *Pongamia*.

Tetrahedron Letters, **1994**, *35*, 6235

Group Transfer Addition Reactions of Selenomalononitriles to Chiral Enol Ethers. Asymmetric Radical Addition and Selenium Transfer Reactions

Dennis P. Curran,* Steven J. Geib and Lung Huang Kuo
Department of Chemistry, University of Pittsburgh, Pittsburgh, PA 15260, USA

Group transfer addition reactions of alkyl phenylselenomalononitriles to enol ethers derived from trans-2-phenylcyclohexanol and 8-phenylmenthol occur cleanly, and moderate to excellent stereoselection is observed in both the radical addition and phenylselenium transfer steps.

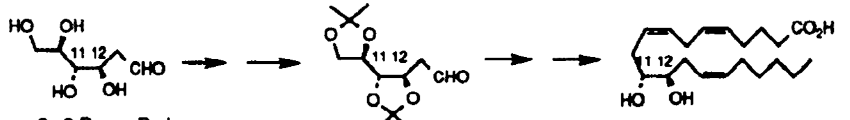


Tetrahedron Letters, **1994**, *35*, 6239

Total Synthesis of 11-R,12-R-Dihydroxyeicosatrienoic Acid, A Metabolite of the Cytochrome P-450 Epoxygenase Pathway.

Steven S. Wang and Joshua Rokach*, Claude Pepper Institute, Florida Tech, 150 W. University Blvd., Melbourne, FL 32901, USA.

The first total and enantioselective synthesis of title compound 7 has been accomplished starting from 2-deoxy-D-glucose.



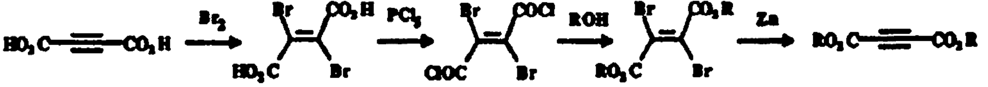
8 2-Deoxy-D-glucose 11 7

Tetrahedron Letters, **1994**, *35*, 6243

SYNTHESIS OF CHIRAL ESTERS OF ACETYLENEDICARBOXYLIC ACID.

James L. Charlton,* and Gaikleen Chee, Department of Chemistry, University of Manitoba, Winnipeg, Canada R3T 2N2

Acetylenedicarboxylic acid esters have been synthesized in excellent yield via esterification of dibromofumaryl chloride followed by dehalogenation.

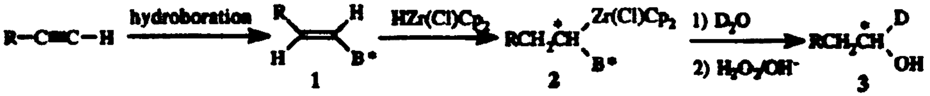


Tetrahedron Letters, **1994**, *35*, 6247

Diastereoselective Hydrozirconation of Optically Active 1-Alkenyl Boryl Derivatives:A Conversion of 1-Alkynes to Optically Active 1-Deuterio Primary Alcohols.

Bin Zheng and Morris Srebnik*, Department of Chemistry, The University of Toledo, Toledo, OH 43606, USA

Optically active 1-deuterio primary alcohols were obtained by a new type of asymmetric hydrozirconation.



1 2 3

B*: Optically active boron moiety

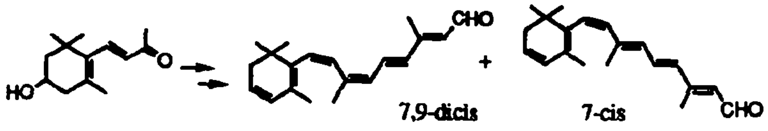
80-93% ee

Tetrahedron Letters, **1994**, *35*, 6251

7-CIS AND 7,9-DICIS-3-DEHYDRORETINAL. HINDERED ISOMERS OF VITAMIN A2 ALDEHYDE.

Rong-liang Chen and Robert S. H. Liu,* Department of Chemistry, University of Hawaii, Honolulu, HI 96822, U. S. A.

The synthesis of the two title compounds from 3-hydroxy-β-ionone was accomplished in six steps.

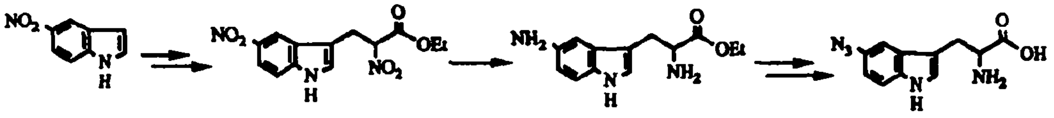


Tetrahedron Letters, **1994**, *35*, 6255

An Efficient Synthesis of 5-Azidotryptophan

Min Li and Michael E. Johnson*
Center for Pharmaceutical Biotechnology and Department of Medicinal Chemistry
& Pharmacognosy (M/C 781), University of Illinois at Chicago, Chicago, Illinois 60612

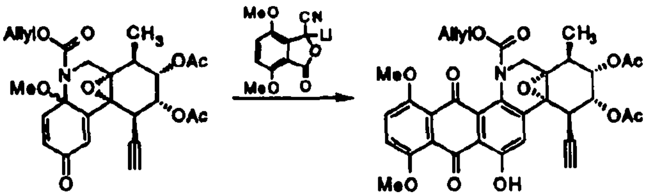
5-Azidotryptophan, a potential photoaffinity labeling reagent, was synthesized in 5 steps from 5-nitroindole.



Tetrahedron Letters, **1994**, *35*, 6259

An Advanced Dynemicin A Model: Stabilization of the 3,8-Epoxide by Anthraquinone Functionality in the Absence of the Bridging Enediyne.

Taeyoung Yoon, Matthew D. Shair, and
Samuel J. Danishefsky*,
Department of Chemistry, Yale University,
New Haven, Connecticut 06511

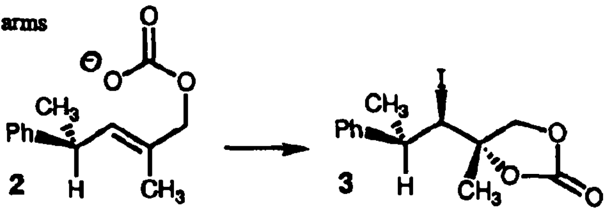


Tetrahedron Letters, **1994**, *35*, 6263

A PHENYL-ASSISTED ASYMMETRIC IODOLACTONISATION REACTION

Reinhard W. Hoffmann, Rainer Stürmer, and Klaus Harms
Fachbereich Chemie der Philipps-Universität,
D-35032, Marburg, Germany

Iodolactonisation of the carbonate 2 led to a single diastereomer of the iodolactone 3. Since the conformation of the starting carbonate is controlled by allylic 1,3-strain, iodine attacked the double bond from the face of the phenyl group.

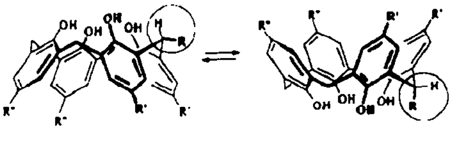


Tetrahedron Letters, **1994**, *35*, 6267

CALIX[4]ARENES WITH ALKYLIDENE BRIDGES; SYNTHESIS AND CONFORMATIONAL PROPERTIES.

Cordula Grüttner, Volker Böhmer*, Walter Vogt, J.-Gutenberg-University, D-55099 Mainz, Germany; Iris Thondorf, Dep. of Biochem./Biotechn., M.-Luther-University, D-06099 Halle, Germany; Silvio E. Biali, Flavio Grynszpan, The Hebrew University, Jerusalem 91904, Israel

In contrast to phenyl groups aliphatic residues at the bridging carbon atom(s) in calix[4]arenes with one or two alkylidene bridges prefer the equatorial position.

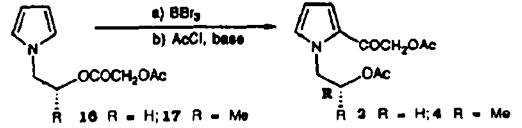


Tetrahedron Letters, **1994**, *35*, 6271

A CONCISE SYNTHESIS OF TWO PYRROLES OF MARINE ORIGIN

C.W. Jefford, K. Sienkiewicz, and S.R. Thornton
Department of Organic Chemistry, University of Geneva,
1211 Geneva 4, Switzerland

2-Ethanolamine and (2R)-2-aminopropanol were converted to their pyrrolo and acetoxyacetyl derivatives 16 and 17 which on BBr_3-promoted rearrangement and acetylation gave the target acetates 2 and 4.



16 R = H; 17 R = Me

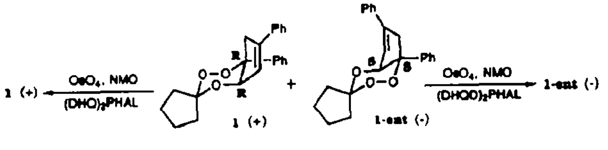
2 R = H; 4 R = Me

Tetrahedron Letters, **1994**, *35*, 6275

THE OSMIUM-CATALYZED ASYMMETRIC DIHYDROXYLATION OF CIS-FUSED CYCLOPENTENO-1,2,4-TRIOXANES

C.W. Jefford, D. Misra, A.P. Dishington, G. Timari, J.-C. Rossier, and G. Bernardinelli
Department of Organic Chemistry, University of Geneva, 1211 Geneva 4, Switzerland

Osmylation in the presence of chiral ligands and N-methylmorpholine N-oxide (NMO) effects resolution of 1 and 1-ent.

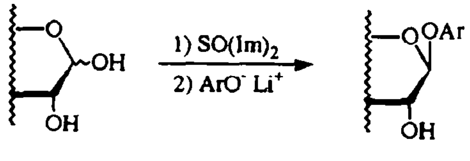


Tetrahedron Letters, **1994**, *35*, 6279

A Stereoselective *O*-Aryl Glycosylation Procedure *via* 1,2-Cyclic Sulfite

Mohammed El Arabi Aouad, Ahmed El Meslouti, Raoul Uzan and Daniel Beaupere*
Laboratoire de Chimie Organique, Groupe de Chimie des Glucides, Faculté des Sciences,
33, rue St Leu - 80039 AMIENS (France) - Fax : 22.82.75.76

In a one-pot procedure, treatment of partially protected D-glucose and unprotected D-xylose, with N,N'- thionyldiimidazole and then phenoxide ions gives stereoselectively β-*O*-aryl glycosides.

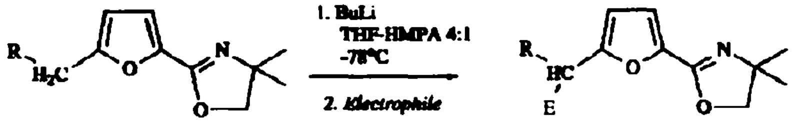


Tetrahedron Letters, **1994**, *35*, 6283

SIDE CHAIN METALATION OF (5-SUBSTITUTED-2-FURYL) OXAZOLINES.

Jean-Yves Lenoir, Pierre Ribereau, Guy Quéguiner*
LCOFH-IRCOF, associé au CNRS, INSA de Rouen, BP 08, 76131 Mont-Saint Aignan (France).

Reaction of butyllithium with 4,4-dimethyl-2-(5-methyl-2-furyl)oxazoline in THF-HMPA 4:1 leads to side-chain metalation

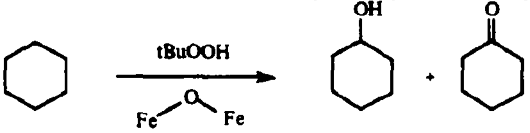


Tetrahedron Letters, **1994**, *35*, 6287

OXIDATION OF ALKANES CATALYSED BY BINUCLEAR METAL COMPLEXES: CONTROL BY THE COORDINATION SPHERE.

Jean-Marc Vincent, Stéphane Ménage, Claude Lambeaux, Marc Fontecave*
Laboratoire d'Etudes Dynamiques de la Structure et de la Sélectivité, associé au CNRS, Université Joseph Fourier, BP 53X, 38041Grenoble Cedex, France

The overall charge of μ-oxo binuclear ferric centers influence significantly their catalytic properties in the reaction:

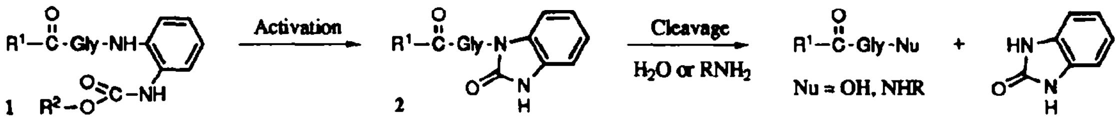


Tetrahedron Letters, **1994**, *35*, 6291

CARBOXYL-PROTECTING GROUPS CONVERTIBLE INTO ACTIVATING GROUPS. CARBAMATES OF *o*-AMINOANILIDES ARE PRECURSORS OF REACTIVE *N*-ACYLUREAS.

Robert Pascal,* Denis Chauvey and Régine Sola, Centre de Recherches de Biochimie Macromoléculaire, CNRS and INSERM, Route de Mende, BP 5051, 34033 Montpellier, France

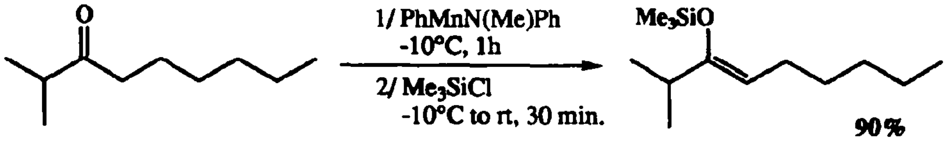
A quantitative base-catalysed activation of the amino acid derivatives 1 gives the *N*-acylureas 2 capable of reacting with nucleophiles.



Tetrahedron Letters, **1994**, *35*, 6295

HIGHLY REGIO AND STEREOSELECTIVE PREPARATION OF Z SILYL ENOL ETHERS AND Z ENOL ESTERS FROM KETONES VIA MANGANESE ENOLATES.

Gérard Cahiez *, Bruno Figadère and Patrick Cléry
Laboratoire de Chimie des Organoéléments, Université P. & M. Curie, 4 Place Jussieu F-75252 PARIS Cédex 05

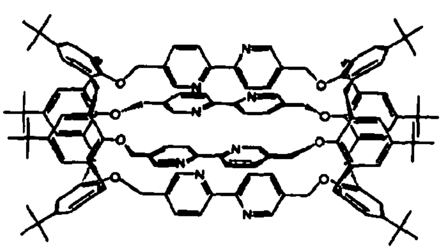


90%
(Z/E: 97/3; regioselectivity: 99%)

Tetrahedron Letters, **1994**, *35*, 6299

CALIXARENE[4]-PODANDS AND BARREL-SHAPED CALIXARENE[4]-CRYPTANDS BASED ON 5,5'-SUBSTITUTED-2,2'-BIPYRIDINE SUBUNITS

Gilles Ulrich and Raymond Ziessel*
Laboratoire de Chimie, d'Electronique et de Photonique Moléculaires,
Ecole Européenne des Hautes Etudes des Industries Chimiques de Strasbourg
1, rue Blaise Pascal, 67008 Strasbourg, France

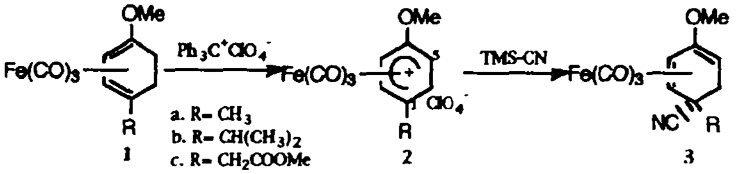


Tetrahedron Letters, **1994**, *35*, 6303

Nitrile Addition To Tricarbonylcyclohexadienylium Complexes: The Effect Of Perchlorate Counteranion

Chi Wi ONG*, Yen Kai Chao and You An Chang, Department of Chemistry, National Sun Yat Sen University, Kaoshiung, Taiwan 804.

A convenient method for the preparation of the tricarbonylcyclohexadienyliumiron perchlorate salts and their reactions with TMS-CN were investigated.

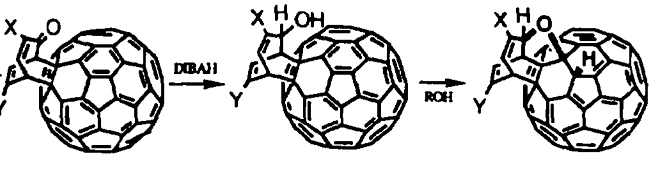


Tetrahedron Letters, **1994**, *35*, 6305

DIBAH-REDUCTION OF THE DIELS-ALDER ADDUCTS OF BUCKMINSTERFULLERENE WITH TROPONES: FORMATION OF DERIVATIVES HAVING FOUR CONSECUTIVE SP^3-CARBONS.

Hitoshi Takeshita,* Ji-Feng Liu, Nobuo Kato, and Akira Mori, Institute of Advanced Material Study, 86, Kyushu University, Kasuga-koen, Kasuga, Fukuoka 816 Japan

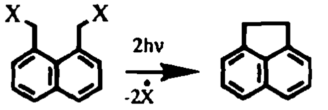
Buckminsterfullerene derivatives having four consecutive sp3-carbons are prepared by DIBAH-reduction of Diels-Alder adducts from tropone, 2-methoxytropone, and 4-acetoxytropone.



Tetrahedron Letters, **1994**, *35*, 6309

HIGHLY EFFICIENT C-C BOND FORMATION IN THE TWO-PHOTON CHEMISTRY OF 1,8-BIS(SUBSTITUTED-METHYL)NAPHTHALENES BY DIRECT EXCITATION OF PHOTOACTIVE LEAVING GROUPS

Akihiko Ouchi,* Akira Yabe, and Waldemar Adam†
National Institute of Materials and Chemical Research, Tsukuba, Ibaraki 305, Japan
† Institute of Organic Chemistry, University of Würzburg, Am Hubland, D-97074 Würzburg, Germany



X = OPh, 4-PhCOC$_6$H$_4$O-
SPh, 3-PhCOC$_6$H$_4$O-
SePh, 2-naphthoxy

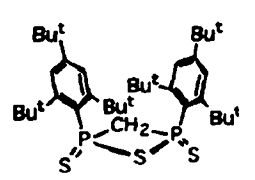
Two-photon intramolecular C-C bond formation by direct excimer laser excitation of substrates with two separate, photoactive leaving groups

Tetrahedron Letters, **1994**, *35*, 6313

THIADIPHOSPHETANE DISULFIDE AS A METAL EXTRACTANT WHICH SHOWS HIGH AG$^+$ SELECTIVITY

Masaaki Yoshifuji*, Kozo Toyota*, Kotaro Shirabe*, Hideshi Iki, Takeshi Nagasaki, and Seiji Shinkai
*Department of Chemistry, Faculty of Science, Tohoku University,
Aoba, Sendai 980-77, Japan
Department of Chemical Science and Technology, Faculty of Engineering,
Kyushu University, Hakozaki, Fukuoka 812, Japan

Thiadiphosphetanedisulfide compound acts as an excellent Ag$^+$-selective extractant. 1 forms a 1:1 complex with Ag$^+$ using the P(=S)–S–P(=S) group.



1

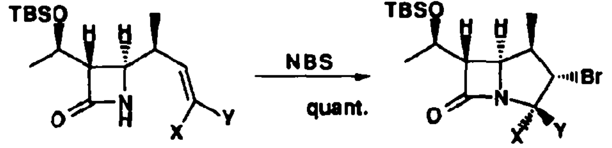
$1{\cdot}Ag^+ \gg 1{\cdot}Fe^{3+} \gg 1{\cdot}Pd^{2+}, 1{\cdot}UO_2^{2+}$

Tetrahedron Letters, **1994**, *35*, 6317

A NEW SYNTHESIS OF 1β-METHYLCARBAPENEMS USING NBS-PROMOTED CYCLIZATION AS A KEY STEP

Osamu Sakurai, Masami Takahashi, Tsuyoshi Ogiku, Masahito Hayashi, Hiroshi Horikawa,* and Tameo Iwasaki, Research Laboratory of Applied Biochemistry, Tanabe Sciyaku Co., Ltd., 3-16-89, Kashima, Yodogawa, Osaka 532, Japan

NBS-promoted cyclization of α-ethoxyenoates afforded functionalized 1β-methylcarbapenams, which were subsequently converted to 1β-methylcarbapenem, in a stereospecific manner.



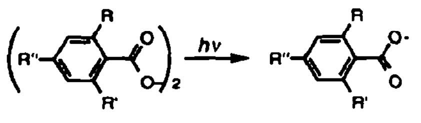
X = OEt, Y = CO$_2$Et,
or X = CO$_2$Et, Y = OEt

Tetrahedron Letters, **1994**, *35*, 6321

BEHAVIOR OF 2-SUBSTITUTED AND 2,6-DISUBSTITUTED BENZOYLOXYL RADICALS. ELECTRONIC AND STERIC EFFECTS OF THE SUBSTITUENTS

Jun Wang, Masahiro Tsuchiya, Hiroki Itoh, Hirochika Sakuragi,* and Katsumi Tokumaru
Department of Chemistry, University of Tsukuba, Tsukuba, Ibaraki 305, Japan and Department of Chemistry, Faculty of Science, Yamagata University, Koshirakawa, Yamagata 920, Japan

2,6-Dimethylbenzoyloxyl and 2,4,6-trimethylbenzoyloxyl radicals decarboxylate efficiently rather than transfer a hydrogen atom as observed by transient absorption spectroscopy and product distribution.



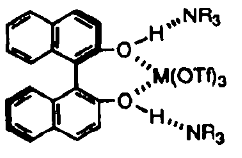
R = CH$_3$ or Cl, R' = R'' = H
R = R' = CH$_3$ or Cl, R'' = H
R = R' = R'' = CH$_3$
R = MeCH$_2$ or PhCH$_2$, R' = R'' = H

Tetrahedron Letters, **1994**, *35*, 6325

On Chiral Ytterbium and Scandium Catalysts Based on Their Trifluoromethanesulfonates in Asymmetric Diels-Alder Reactions

Shū KOBAYASHI,* Haruro ISHITANI, Mitsuharu ARAKI, and Iwao HACHIYA
Department of Applied Chemistry, Faculty of Science, Science University of Tokyo (SUT), Kagurazaka, Shinjuku-ku, Tokyo 162

Unique structure of a chiral ytterbium or scandium catalyst (prepared from ytterbium or scandium trifluoromethanesulfonate, (R)-(+)-binaphthol, and a tertiary amine) was revealed. The structure was characterized by hydrogen bonds between the phenolic hydrogens of (R)-(+)-binaphthol and the nitrogens of the tertiary amines. Aging and aggregation of the catalysts are also reported.



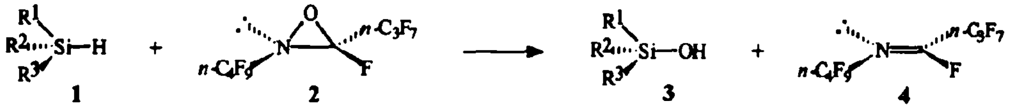
M = Yb or Sc

Tetrahedron Letters, **1994**, *35*, 6329

OXYFUNCTIONALIZATION REACTIONS BY PERFLUORO *CIS*-2,3-DIALKYLOXAZIRIDINES. ENANTIOSELECTIVE CONVERSION OF SILANES INTO SILANOLS.

Marcello Cavicchioli, Vittorio Montanari, Giuseppe Resnati* - C.N.R.-Centro di Studio sulle Sostanze Organiche Naturali,
Dipartimento di Chimica, Politecnico, 7 via Mancinelli, I-20131 Milano, ITALY

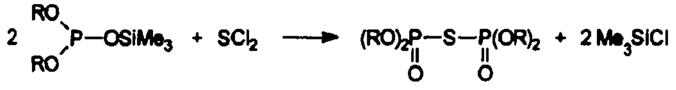
Perfluoro cis-2,3-dialkyloxaziridine 2 oxidizes silanes 1 to silanols and silanediols 3 in high yields and with complete enantioselectivity.



Tetrahedron Letters, **1994**, *35*, 6331

AN EXPEDIENT SYNTHESIS OF SYMMETRICAL TETRA-ALKYL MONOTHIOPYROPHOSPHATES

Roman Dembiński, Aleksandra Skowrońska and Jan Michalski
Centre of Molecular and Macromolecular Studies, Polish Academy of Sciences, Sienkiewicza 112, 90-363 Łódź, Poland



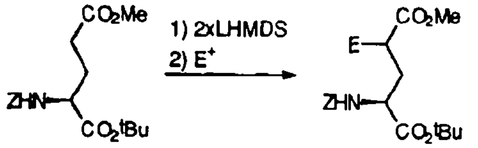
$$2\ (RO)_2P\text{—}OSiMe_3 + SCl_2 \longrightarrow (RO)_2\underset{\underset{O}{\|}}{P}\text{—}S\text{—}\underset{\underset{O}{\|}}{P}(OR)_2 + 2\,Me_3SiCl$$

R= Me, Et, i-Pr, t-Bu, t-BuCH$_2$, R$_2$=Me$_2$C(CH$_2$)$_2$.

Tetrahedron Letters, **1994**, *35*, 6335

THE SYNTHESIS OF γ-SUBSTITUTED GLUTAMIC ACIDS VIA A GLUTAMIC ACID γ-ENOLATE SYNTHON

Andrew N.C. Johnstone, Stephania Lopatriello, Michael North*
Department of Chemistry, University of Wales, Bangor, Gwynedd, LL57 2UW

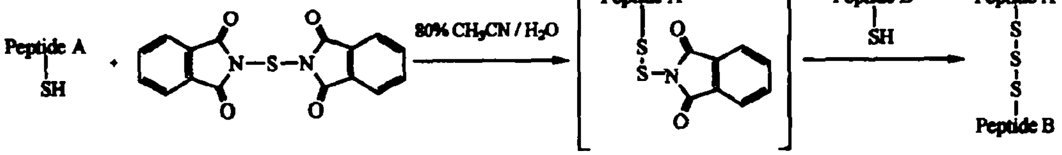


The synthesis of γ-alkylated glutamic acid derivatives *via* the formation of the γ-enolate of compound (4) and its reaction with electrophiles is described.

Tetrahedron Letters, **1994**, *35*, 6339

A CONVENIENT METHOD FOR THE SYNTHESIS OF PEPTIDE TRISULFIDES.

Ronny H. L. Lundin*, Pharmacia AB, Kabi Peptide Hormones.
Bengt E. Norén, Per Olof Edlund, Pharmacia AB, BioScience Center.
S-112 87 Stockholm, Sweden



Tetrahedron Letters, **1994**, *35*, 6343

A NOVEL DISPLACEMENT ROUTE TO P-CHIRAL PHOSPHINE OXIDES OF HIGH ENANTIOMERIC PURITY

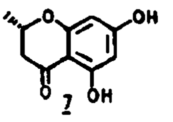
C. Cardellicchio[a], V. Fiandanese[a], F. Naso*[a], S. Pacifico[a], M. Koprowski[b] and K.M. Pietrusiewicz*[b]
[a]C.N.R., Centro di Studio sulle Metodologie Innovative di Sintesi Organiche, Dipartimento di Chimica, Universita di Bari, via Amendola 173, 70126 Bari, Italy. [b]Centre of Molecular and Macromolecular Studies, Polish Academy of Sciences, Sienkiewicza 112, 90363 Łódź, Poland.

Reactions of 1 with Grignard reagents result in highly stereoselective displacement of the halovinyl group with clean inversion of configuration at phosphorus.

Tetrahedron Letters, **1994**, *35*, 6347

A CONCISE SYNTHESIS OF CHIRAL 2-METHYL CHROMAN-4-ONES : STEREOSELECTIVE BUILD-UP OF THE CHROMANOL MOIETY OF ANTI-HIV AGENT, CALANOLIDE A

A V Rama Rao*, A S Gaitonde, K R C Prakash and S Prahlada Rao
Indian Institute of Chemical Technology, Hyderabad 500 007, India



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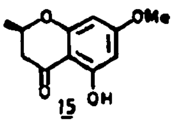

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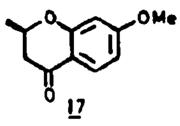

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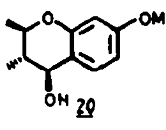

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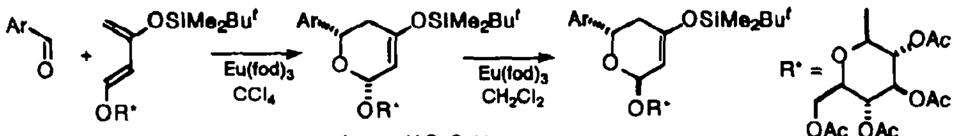
Tetrahedron Letters, **1994**, *35*, 6351

HETERO DIELS–ALDER REACTION INVOLVING (*E*)-3-(*tert*-BUTYLDIMETHYLSILOXY)-1-(2',3',4',6'-TETRA-*O*-ACETYL-β-D-GLUCOPYRANOSYLOXY)BUTA-1,3-DIENE AND *p*-NITROBENZALDEHYDE

Richard F Lowe and Richard J. Stoodley*, Department of Chemistry, UMIST, PO Box 88, Manchester M60 1QD, UK



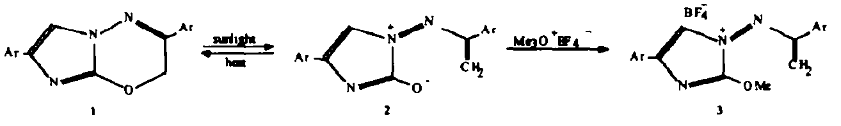
Ar = p-$NO_2C_6H_4$

Tetrahedron Letters, **1994**, *35*, 6355

PREPARATION OF NOVEL MESOIONIC COMPOUNDS: A REVERSIBLE PHOTOCHROMIC PROCESS.

Fructuoso Barba* and Belén Batanero. Departamento de Química Orgánica. Universidad de Alcalá de Henares, Madrid, Spain.

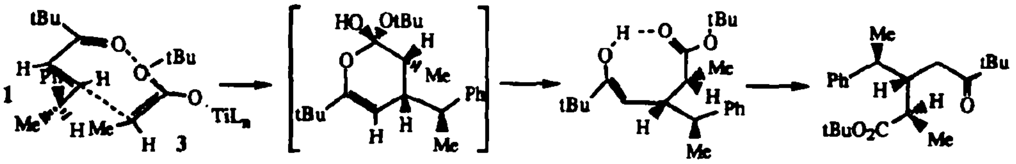
The 3,7-diaryl-2H-imidazo[2,1-b][1,3,4]oxadiazines (1) undergo by sunlight a reversible transformation into a mesoionic imidazo-compound (2).The nature of 2 was determined by chemical and spectroscopical methods.



Tetrahedron Letters, **1994**, *35*, 6357

STEREOSELECTIVE CONJUGATE ADDITION OF PROPIONATE Ti ATE ENOLATE TO UNSATURATED CHIRAL KETONES: A NEW INSIGHT IN THE REACTION MECHANISM.

Anna Bernardi,* Chiara Marchionni, Carlo Scolastico* and Tullio Pilati. **Isolation of enol intermediates in the reaction of 1 with 3 suggests the addition of ester Ti ate enolates to unsaturated ketones is a [4+2] inverse demand cycloaddition.**

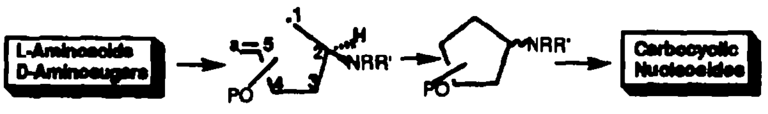


Tetrahedron Letters, **1994**, *35*, 6361

ASYMMETRIC SYNTHESIS OF CYCLOPENTYLAMINE DERIVATIVES, INTERMEDIATES FOR CARBOCYCLIC NUCLEOSIDE SYNTHESIS. CARBOCYCLIZATION OF 2-AMINO-5-HEXENYL RADICALS

**José Marco-Contelles* and Manuel Bernabé. Instituto de Química Orgánica (CSIC), Juan de la Cierva 3,
28006-Madrid, Spain.**

The carbocyclization of chiral 2-amino-5-hexenyl radicals leading to polyfunctionalized cyclopentylamines is described.

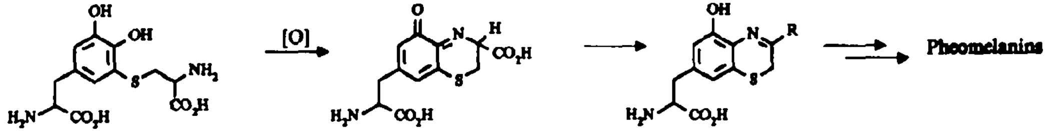


Tetrahedron Letters, **1994**, *35*, 6365

CHARACTERISATION OF 1,4-BENZOTHIAZINE INTERMEDIATES IN THE OXIDATIVE CONVERSION OF 5-S-CYSTEINYLDOPA TO PHEOMELANINS.

**Alessandra Napolitano, Claudio Costantini
Orlando Crescenzi, and Giuseppe Prota*. Dept. Org. Biol. Chem., University of Naples, Italy**

Under biomimetic conditions, oxidation of *5-S-*cysteinyldopa (1) to pheomelanins proceeds through the formation of the 1,4-benzothiazine 7 and to a much lesser extent of the acid 6, both arising by the rearrangement with or without decarboxylation of the cyclic quinonimine 3.



1

3

6, R=CO$_2$H; 7, R=H

Tetrahedron Letters, **1994**, *35*, 6369

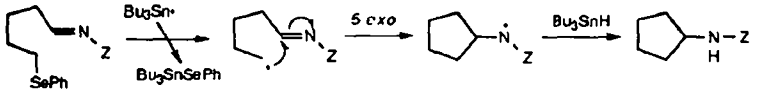
CYCLISATION OF CARBINYL RADICALS ONTO IMINES AND HYDRAZONES

W. Russell Bowman,*[a] Peter T. Stephenson,[b] Nicholas K. Terrett,[b] and Adrian R. Young[a]

[a] Department of Chemistry, University of Technology, Loughborough, Leics. LE11 3TU, Great Britain

[b] Department of Discovery Chemistry, Pfizer Central Research, Sandwich, Kent CT13 9NJ, Great Britain

The regioselectivity of intramolecular addition of sp^3 carbon-centred radicals onto C=N double bonds of imines and hydrazones is influenced by the position and polarisation of the C=N bond, *e.g.*



Z = alkyl and Ar (imines),
NR$_2$ (hydrazones)

Tetrahedron Letters, **1994**, *35*, 6373

THE MECHANISM OF NITRATION OF PHENOL AND 4-METHYLPHENOL BY NITROGEN DIOXIDE IN SOLUTION.

Robert G. Coombes* and Andrew W. Diggle, Department of Chemistry, City University, Northampton Square, London, EC1V 0HB, UK
Stewart P. Kempsell, Shell Research Ltd, Thornton Research Centre, P.O. Box No.1, Chester, CH1 3SH, UK

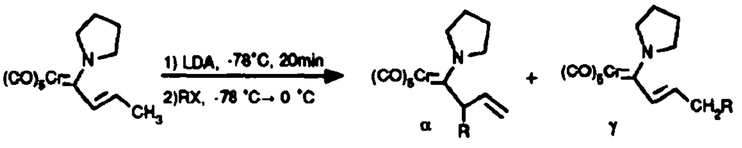
The first stage becomes rate limiting as the $[NO_2]$ is raised whereas, with 4-methylphenol, rearrangement of a cyclohexa-2,4-dien-1-one intermediate becomes a rate limiting process.

$$PhOH + NO_2\cdot \rightleftharpoons PhO\cdot + HNO_2$$
$$PhO\cdot + NO_2\cdot \longrightarrow \longrightarrow PRODUCTS$$

Tetrahedron Letters, **1994**, *35*, 6377

REACTION OF THE CONJUGATE BASE OF PROPENYLPYRROLIDINOCARBENECHROMIUM PENTACARBONYL COMPLEX WITH ELECTROPHILES.

Clara Baldoli, Paola Del Buttero, Emanuela Licandro, Stefano Maiorana*, Antonio Papagni* and Antonio Zanotti-Gerosa
Dipartimento di Chimica Organica e Industriale dell'Universita'- CNR, Centro Studio Sintesi e Stereochimica Speciali Sistemi Organici - Via C. Golgi, 19. I-20133 MILANO - Italy



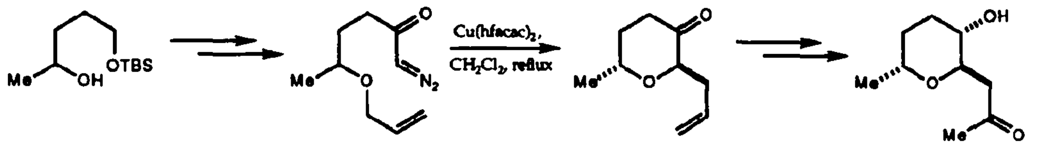
Chemical Yields 30-80%
α / γ from 5 to 0

Tetrahedron Letters, **1994**, *35*, 6381

A SHORT SYNTHESIS OF (±)-DECARESTRICTINE L

J. Stephen Clark and Gavin A. Whitlock,
Department of Chemistry, University of Nottingham, Nottingham, NG7 2RD, UK

A short stereoselective synthesis of (±)-decarestrictine L is described. The tetrahydropyran ring was constructed by a tandem intramolecular carbenoid insertion and ylide rearrangement reaction.

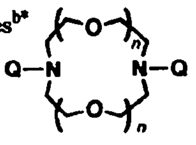


Tetrahedron Letters, **1994**, *35*, 6383

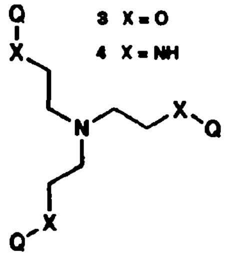
PREPARATION AND ELECTROCHEMICAL SWITCHING OF NOVEL BIS(ANTHRAQUINONE)DIAZACROWN ETHERS

L. Echegoyen,[a*] Y. Hafez,[b] R.C. Lawson,[a] J. de Mendoza[b*] and T. Torres[b*]
[a]Dept. of Chemistry, University of Miami, Coral Gables, Florida 33124, USA
[b]Departamento de Química (C-I), Universidad Autónoma de Madrid, Cantoblanco, 28049 Madrid, Spain

Compounds 1 and 2 exhibit enhanced sodium binding properties upon electrochemical reduction



1 $n = 1$
2 $n = 2$
Q = anthraquinon-1-yl



3 X = O
4 X = NH

Tetrahedron Letters, **1994**, *35*, 6387

CYCLOTETRACHROMOTROPYLENE PLAYS HOST TO α-, β-, AND γ-CYCLODEXTRIN IN WATER

Bo-Long Poh* and Chi Ming Tan
School of Chemical Sciences, Universiti Sains Malaysia, 11800 Minden, Penang, Malaysia

Cyclotetrachromotropylene Cyclodextrin (α-, β-, γ-)