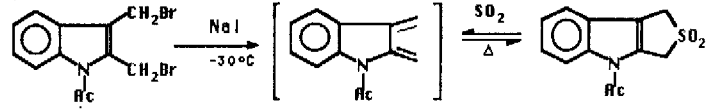
GRAPHICAL ABSTRACTS

Tetrahedron Lett. 30, 7289 (1989)

INDOLE-2,3-QUINODIMETHANES: GENERATION, REACTIVITY AND REGIOSELECTIVE CONTROL OF INTERMOLECULAR DIELS-ALDER REACTIONS

Susan F. Vice, Helena Nandin de Carvalho, Nicholas G. Taylor and Gary I. Dmitrienko
Centre Guelph -Waterloo for Graduate Work in Chemistry , Waterloo Campus, University of Waterloo, Waterloo, Ontario, N2L 3G1 Ontario, Canada.



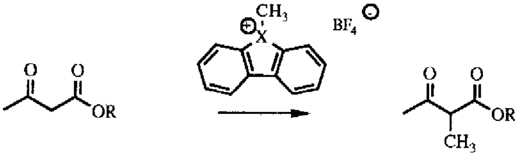
N-acylindole-2,3-quinodimethanes generated from the N-acyl-2,3-bis(bromo methyl)indoles undergo a variety of cycloadditions including the reversible chelotropic reaction with sulphur dioxide to yield the unreported 1,3dihydrothieno[3,4-b]indole-2,2-dioxide 9.

Tetrahedron Lett. 30, 7293 (1989)

CARBON-CARBON BOND FORMATION UNDER AQUEOUS REACTION CONDITIONS USING SULFONIUM AND SELENONIUM SALT ELECTROPHILES

Jeffrey D. Winkler* and Martha Finck-Estes
Searle Chemical Laboratories, Department of Chemistry, The University of Chicago, Chicago, Illinois 60637

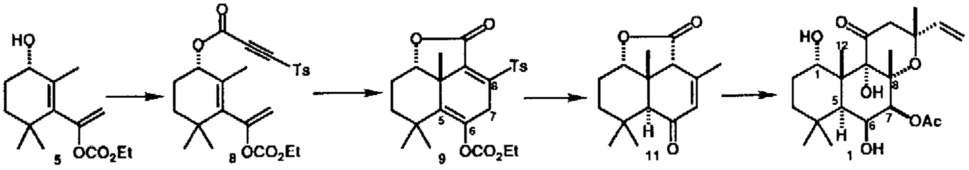
Methylation of carbon nucleophiles occurs at neutral pH in aqueous media using suitably substituted methyl sulfonium and selenonium salt electrophiles (X = S, Se).



Tetrahedron Lett. 30, 7297 (1989)

A SHORT AND EFFICIENT ENANTIOSELECTIVE ROUTE TO A KEY INTERMEDIATE FOR THE TOTAL SYNTHESIS OF FORSKOLIN

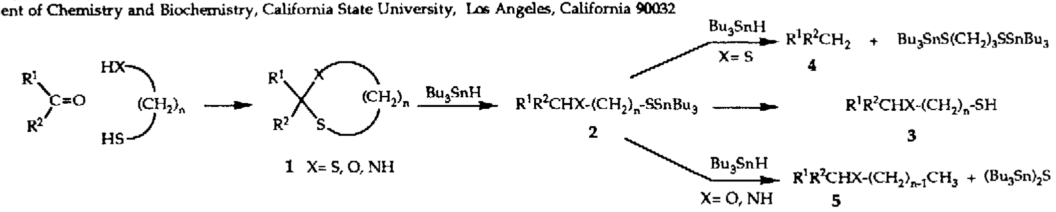
E. J. Corey and Paul Da Silva Jardine
Department of Chemistry, Harvard University, Cambridge, Massachusetts, 02138



Tetrahedron Lett. 30, 7301 (1989)

SELECTIVE DESULFURIZATION OF 1,3-DITHIANES, -OXATHIOLANES AND -THIAZOLIDINES BY TRIBUTYLTIN HYDRIDE

K. Schmidt, S. O'Neal, T.C. Chan, C.P. Alexis, J.M. Uribe, K. Lossener, and C. G. Gutierrez*
Department of Chemistry and Biochemistry, California State University, Los Angeles, California 90032

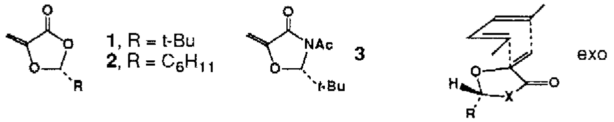


Tetrahedron Lett. 30, 7305 (1989)

SYNTHESIS AND DIELS-ALDER REACTIONS OF 2-ALKYL-5-METHYLENE-1,3-DIOXOLAN-4-ONES AND 2-ALKYL-3-ACYL-5-METHYLENE-1,3-OXAZOLIDIN-4-ONES: HIGHLY EXO AND DIASTEREOFACE SELECTIVE CHIRAL KETENE EQUIVALENTS

William R. Roush,* Amy P. Essenfeld, Joseph S. Warmus and Bradley B. Brown
Departments of Chemistry, Indiana University, Bloomington, IN 47405-4201 and
Massachusetts Institute of Technology, Cambridge MA 02139

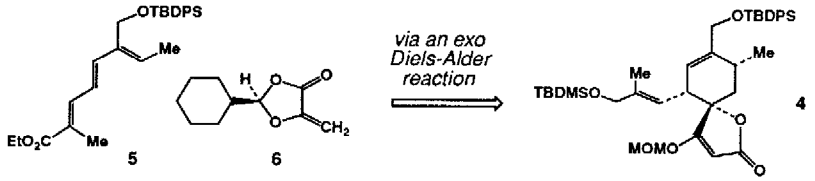
*The synthesis and exo-selective Diels- Alder reactions of **1-3** are described.*



Tetrahedron Lett. 30, 7309 (1989)

DIASTEREOSELECTIVE SYNTHESIS OF THE TOP HALF OF KIJANOLIDE

William R. Roush* and Bradley B. Brown
Department of Chemistry, Indiana University, Bloomington, IN 47405-4201

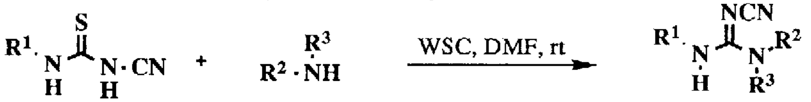


Tetrahedron Lett. 30, 7313 (1989)

A FACILE SYNTHESIS OF CYANOGUANIDINES FROM THIOUREAS

Karnail S. Atwal*, Syed Z. Ahmed and Brian C. O'Reilly
The Squibb Institute for Medical Research, P. O. Box 4000, Princeton, N.J. 08543-4000

A facile synthesis of cyanoguanidines from corresponding thioureas is reported using 1-(3-dimethylaminopropyl)-3-ethylcarbodiimide hydrochloride (water soluble carbodiimide).

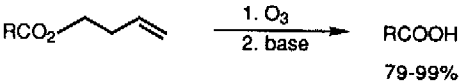


$$R^1NH{-}C(=S){-}NH{-}CN + R^2R^3NH \xrightarrow{\text{WSC, DMF, rt}} R^1NH{-}C(=NCN){-}NR^2R^3$$

Tetrahedron Lett. 30, 7317 (1989)

3-BUTENYL ESTERS AS CONVENIENT PROTECTING GROUPS FOR CARBOXYLIC ACIDS

Anthony G.M. Barrett,* Suzanne A. Lebold and Xiao-an Zhang
Department of Chemistry, Northwestern University, Evanston, IL 60208



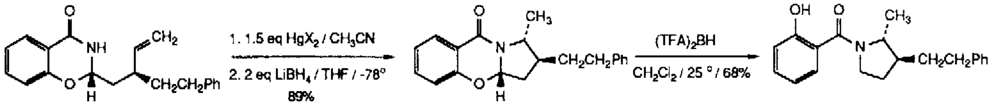
3-Butenyl esters have been shown to be effective as carboxylic acid protecting groups. Mild regeneration of the acid functionality under non-aqueous conditions has been achieved by ozonolysis and subsequent β-elimination of the acyloxypropanal.

Tetrahedron Lett. 30, 7321 (1989)

A REMOVABLE AUXILIARY FOR AMIDOMERCURATION REACTIONS: THE STEREOSELECTIVE PREPARATION OF SUBSTITUTED N-ACYL PYRROLIDINES AND PIPERIDINES

James M. Takacs*, Mark A. Helle, and Fusao Takusagawa
Department of Chemistry, University of Nebraska-Lincoln, Lincoln, NE 68588-0304

Salicylamide condenses with γ,δ- or δ,ε-unsaturated aldehydes to give cyclic amidals which readily undergo diastereoselective mercury(II)-mediated amidocyclization. The resulting products serve as versatile intermediates for further elaboration as nitrogen heterocycles.



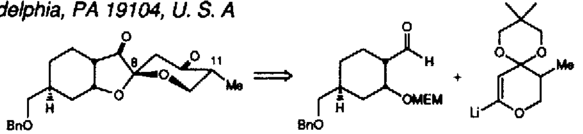
Tetrahedron Lett. 30, 7325 (1989)

PHYLLANTHOSIDE-PHYLLANTHOSTATIN. SYNTHETIC STUDIES. 6. AN AUGMENTED SPIROKETALIZATION TACTIC FOR THE TOTAL SYNTHESIS OF PHYLLANTHOCIN

Amos B. Smith, III,* James R. Empfield, and Henry A. Vaccaro

Department of Chemistry, the Laboratory for Research on the Structure of Matter, and the Monell Chemical Senses Center, University of Pennsylvania, Philadelphia, PA 19104, U. S. A

An augmented spiroketalization maneuver permitting equilibration at both the C(8) and C(11) centers of 11 leads to a more concise and efficient synthesis of phyllanthocin (i.e., 21 steps, 5.6% overall yield).



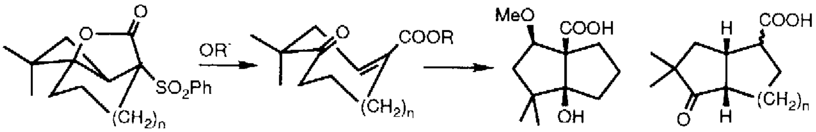
11 **4** **10**

Tetrahedron Lett. 30, 7329 (1989)

"ACCORDION" REARRANGEMENTS OF CYCLOBUTANE α-SULFONYL LACTONES

Andrew S. Kende* and István Káldor
Department of Chemistry, University of Rochester, Rochester, New York 14627, USA

Rearrangement of α-sulfonyl lactones **4** and **8** by alkoxides proceeds by Grob fragmentation to trans-cycloalkene esters (**12**) which may undergo subsequent cyclization to give acids **5**, **6** or **10**.



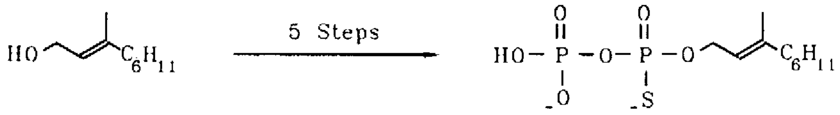
4 (n=1), **8** (n=2) **12a** (n=1), **12b** (n=2) **5** **6** (n=1), **10** (n=2)

Tetrahedron Lett. 30, 7333 (1989)

SYNTHESIS OF O-GERANYL (1-THIO)DIPHOSPHATE

Douglas S. Mautz, V. Jo Davisson, and C. Dale Poulter*
Department of Chemistry, University of Utah, Salt Lake City, Utah 84112.

Abstract: O-Geranyl (1-thio)diphosphate was synthesized from geraniol via H-phosphonate and thiophosphate intermediates in 5 steps with an overall yield of 20%.



Tetrahedron Lett. 30, 7337 (1989)

ON THE ABSOLUTE REACTIVITY OF ARYL CATIONS: SELECTIVITY TOWARD HALIDE IONS AS A FUNCTION OF VISCOSITY

John P. Lorand
Department of Chemistry, Central Michigan University, Mt. Pleasant, MI 48859

The ratio k_{Br}/k_{Cl}--from product yields (hplc)--does not decrease with increasing viscosity. Step 2 thus appears to be fully diffusion controlled.

$$ArN_2^+ \xrightarrow[22\pm1°]{1} [Ar^+ , N_2] \xrightarrow[Br^- + Cl^-]{2} Ar\text{-}Br + Ar\text{-}Cl + N_2$$

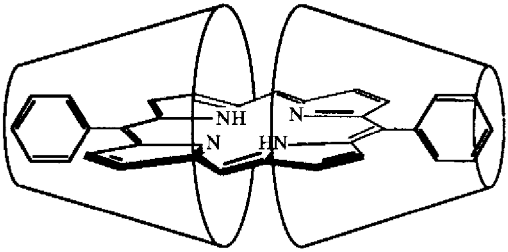
Ar = Mesityl;
2,4-Xylyl; Phenyl

Tetrahedron Lett. 30, 7341 (1989)

SELF-ASSEMBLY OF A HYDROPHOBIC GROOVE

J. S. Manka and D. S. Lawrence, Department of Chemistry
State University of New York, Buffalo, NY 14214

The self-assembly of a complex containing a porphyrin encapsulated by two cyclodextrins is described.

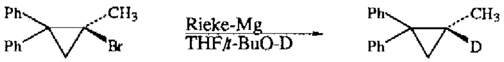


Tetrahedron Lett. 30, 7345 (1989)

MECHANISM OF GRIGNARD REAGENT FORMATION FURTHER EVIDENCE FOR THE SURFACE NATURE OF THE REACTION

Janusz Rachon and H.M. Walborsky*
Department of Chemistry, Florida State University, Tallahassee, Florida 32306

The use of Rieke-magnesium permits one to obtain reaction with (S)-(+)-1-bromo-1-methyl-2,2-diphenylcyclopropane (1) at -65°C to yield a hydrocarbon 2 that is 33-43% optically pure.



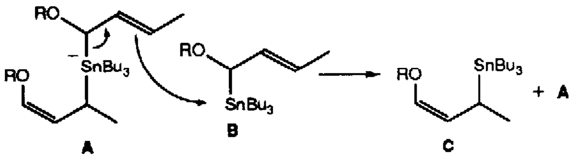
(S)-(+)-1 (R)-(-)-2

Tetrahedron Lett. 30, 7349 (1989)

ON THE 1,3-ISOMERIZATION OF NONRACEMIC α-(ALKOXY)ALLYLSTANNANES

James A. Marshall* and Wei Yi Gung
Department of Chemistry, University of South Carolina, Columbia, SC 29208 USA

A novel mechanism involving the stannate A is proposed for the 1,3-isomerization of allylstannanes (B → C).

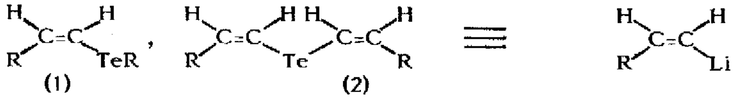


Tetrahedron Lett. 30, 7353 (1989)

VINYLLITHIUMS FROM BUTYL-VINYL TELLURIDES AND BIS-VINYL TELLURIDES

Simone M. Barros[a], João Valdir Comasseto*[b] and Jorge Berriel[b]
[a]Departamento de Química Fundamental, Universidade Federal de Pernambuco, Recife (PE) - Brasil
[b]Instituto de Química, Universidade de São Paulo, CEP-01498 Cx. Postal - 20.780, São Paulo (SP) - Brasil

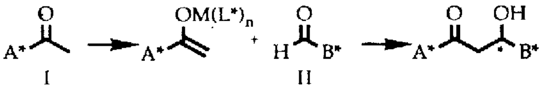
Butyl-vinyl tellurides (1) and bis-vinyl tellurides (2) are synthetic equivalents of vinyllithiums.



Tetrahedron Lett. 30, 7357 (1989)

TRIPLE ASYMMETRIC SYNTHESIS FOR FRAGMENT ASSEMBLY : VALIDITY OFAPPROXIMATE MULTIPLICATIVITY OF THE THREE DIASTEREOFACIAL SELECTIVITIES

Allen J. Duplantier, Michael H. Nantz, John C. Roberts,
Robert P. Short, Peter Somfai,and Satoru Masamune*
Department of Chemistry, Massachusetts Institute of
Technology Cambridge, Massachusetts 02139



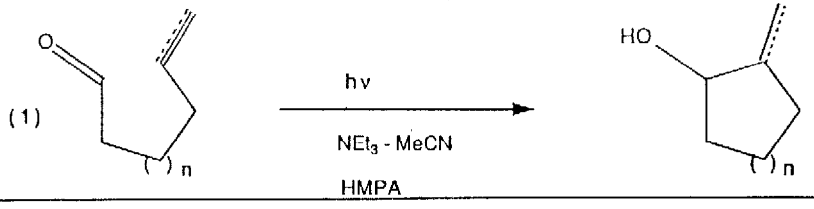
In the assembly of two chiral fragments (I and II) via an aldol reaction, use of a chiral external reagent (e.g. 2,5-dimethylborolanyl triflate) modifies the diastereofacial selectivity (D.S.) of I, thus providing a means of controlling the stereochemical course of the reaction. The stereochemical outcome of this type of triple asymmetric synthesis supports a rule of approximate multiplicativity of D.S.'s of the three chiral components.

Tetrahedron Lett. 30, 7361 (1989)

PHOTOREDUCTIVE CYCLIZATION OF UNSATURATED ALDEHYDES: AN EASY ACCESS TO SPIRANIC MOLECULES

J. COSSY, J.P. PETE, C. PORTELLA
Laboratoire des Réarrangements Thermiques et Photochimiques, Unité Associée au CNRS n° 459, Université de Reims Champagne-Ardenne, 51062 Reims Cédex, France

Substituted cyclo and spiroalkanols have been obtained efficiently by photoreductive cyclization of ω-unsaturated aldehydes

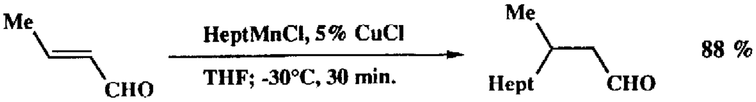


Tetrahedron Lett. 30, 7365 (1989)

ORGANOMANGANESE (II) REAGENTS XVIII : COPPER-CATALYZED 1,4- ADDITION OF ORGANOMANGANESE CHLORIDE COMPOUNDS TO CONJUGATED ETHYLENIC ALDEHYDES.

Gérard CAHIEZ * and Mouad Alami
Laboratoire de Chimie des Organoéléments; Université P. & M. Curie, 4 Place Jussieu F-75252 PARIS Cédex 05

Organomanganese chlorides react with β-mono or β,β-bisubstituted α,β-ethylenic aldehydes in the presence of a catalytic amount of copper chloride to give good yields of 1,4-addition products in THF at -30°C.



Tetrahedron Lett. 30,7369(1989)

ORGANOMANGANESE (II) REAGENT XIX.
ACYLATION OF ORGANOMANGANESE CHLORIDES BY CARBOXYLIC ACID CHLORIDES IN THF: A CLEAR IMPROVEMENT IN THE FIELD OF THE PREPARATION OF KETONES FROM ORGANOMANGANESE COMPOUNDS.

Gérard CAHIEZ * and Blandine Laboue
Laboratoire de Chimie des Organoéléments; Université P. & M. Curie, 4 Place Jussieu F-75252 PARIS Cédex 05

Organomanganese chloride reagents react with carboxylic acid chlorides, in THF, to give the corresponding ketones in excellent yields. With methyl, aryl, alkenyl and s- or t-alkylmanganese chlorides, the acylation is advantageously performed in the presence of a catalytic amount of copper chloride.

$$\text{t-BuMnCl} + \text{HeptCOCl} \xrightarrow{\text{THF, 30 min.}} \text{t-BuCOHept}$$

No CuCl : 0 %
1% CuCl : 96%

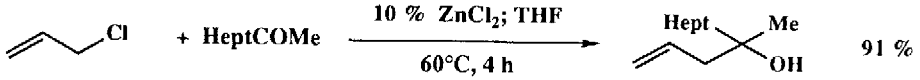
$$\text{HeptMnCl} + \text{BuCOCl} \xrightarrow[\text{-10 to 20°C, 1.5 h}]{\text{THF}} \text{HeptCOBu} \quad 95\ \%$$

Tetrahedron Lett. 30,7373(1989)

ORGANOMANGANESE (II) REAGENTS XX :
MANGANESE MEDIATED BARBIER AND REFORMATSKY LIKE REACTIONS
AN EFFICIENT ROUTE TO HOMOALLYLIC ALCOHOLS AND β-ACETOXYESTERS

Gérard CAHIEZ * and Pierre-Yves Chavant
Laboratoire de Chimie des Organoéléments; Université P. & M. Curie, 4 Place Jussieu F-75252 PARIS Cédex 05

Allylic halides and α-bromoesters react with manganese metal in ethyl acetate; THF can also be used as solvent if a catalytic amount of zinc chloride is added to the reaction mixture. When the reaction is performed in the presence of various aldehydes or ketones, excellent yields of 1,2-addition products are obtained in preparative conditions.

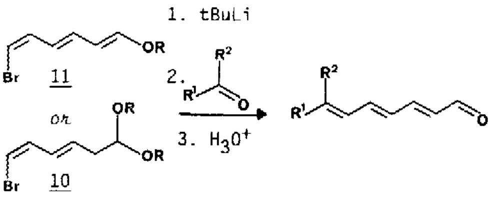


Tetrahedron Lett. 30,7377(1989)

FUNCTIONALISED VINYLIC ORGANOLITHIUM COMPOUNDS, SYNTHETIC EQUIVALENT OF ω-LITHIO SORBALDEHYDE.

L.DUHAMEL*; G.PLE and Y.RAMONDENC
UFR Sciences et Thechniques de Rouen, URA 464 et IRCOF,
B.P.118 76134 Mont Saint Aignan France.

The trivinylogation of carbonyl compounds is realized using fonctionalized vinylic organolithium reagents, prepared from 10 and 11 by bromine-lithium exchange.

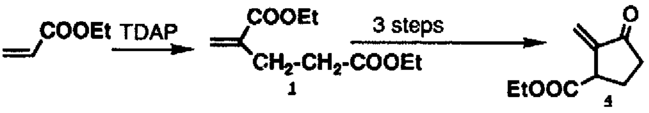


Tetrahedron Lett. 30,7381(1989)

A SHORT LARGE SCALE SYNTHESIS OF (±) SARKOMYCIN ESTERS.

H. AMRI* , M. RAMBAUD** et J. VILLIERAS**
Département de Chimie, Faculté des Sciences, Campus Universitaire 1060 - TUNIS, TUNISIE(*)
Laboratoire de Synthèse Organique Sélective et Matériaux, associé au CNRS Faculté des Sciences et des Techniques, 44072 NANTES Cedex 03 FRANCE(**)

*(±) Sarkomycin ethyl ester **4** has been prepared in four steps from ethyl acrylate via diethyl methylene-2 glutarate **1**.*



overall yield44% from Ethyl acrylate

Tetrahedron Lett. 30, 7383 (1989)

ALKYLAMINOMETHYLATION D'ORGANOMAGNESIENS.

E. YANKEP et H. KAPNANG
Département de Chimie Organique, Faculté des Sciences, BP. 812 Yaoundé (Cameroun)
G. CHARLES*, Département de Biologie Appliquée, I.U.T. 17026 La Rochelle (France)

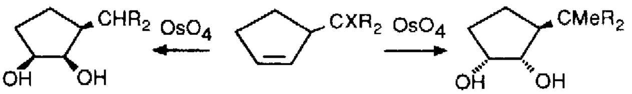
$$\underset{(\underline{1})}{RMgX} + \underset{(\underline{2})}{R^1R^2N\text{-}CH_2\text{-}O\text{-}C_4H_9\text{-}n} \longrightarrow \underset{(\underline{3})}{R^1R^2N\text{-}CH_2\text{-}R} \xrightarrow[2^\circ)\ \ MeOH\ ;\ OH^-]{1^\circ)\ Cl\text{-}COO\text{-}CHCl\text{-}CH_3} \underset{(\underline{4})}{R^1NH\text{-}CH_2\text{-}R}$$

$R = n\text{-}C_8H_{17}$, cyclo-C_6H_{11}, $CH_2{=}\ CH\text{-}CH_2$, $C_6H_5\text{-}CH_2$; $R^1 = CH_3$, n-C_6H_{13} ; $R^2 = C_6H_5\text{-}CH_2$, cyclo-C_6H_{11}

Tetrahedron Lett. 30, 7385 (1989)

THE OSMYLATION OF FLEXIBLE 3-SUBSTITUTED CYCLOPENTENES

Giovanni Poli, Institut de Chimie Organique, 2 Rue de la Barre, Lausanne



The osmylation of several 3-substituted cyclopentenes has been studied. A preference for OsO_4 addition *syn* to an allylic CHR_2 group is observed. Bulkier substituents ($CMeR_2$) give rise to a striking reversal of selectivity.

Tetrahedron Lett. 30, 7389 (1989)

SULFONE MEDIATED RUPE AND RAPHAEL REARRANGEMENTS

V.Barre, F.Massias and D.Uguen*
Laboratoire de chimie, Ecole normale supérieure
24, rue Lhomond, 75231 PARIS Cedex 05.

$$R{-}CH_2{-}CO{-}CH_2{-}G \xleftarrow[2)\ H_3O^+]{1)\ MeO^-} R{-}C{\equiv}C{-}CH_2{-}G \xrightarrow[2)\,H_3O^+]{1)\,Hg^{2+}MeOH} R{-}CO{-}CH_2{-}CH_2{-}G$$

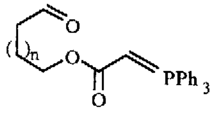
89-100%

Tetrahedron Lett. 30, 7393 (1989)

Intramolecular Wittig Reactions Applied to the Synthesis of Medium Sized α, β-Unsaturated Lactones and Dilactones.

F. Yvergnaux (a), Y. Le Floc'h (a), R. Grée (a), L. Toupet (b).

(a) Laboratoire de Chimie Organique Biologique, E.N.S.C.R., Av. du Gal Leclerc, 35700 Rennes, France.
(b) Département de Physique Cristalline, Université de Rennes I, 35042 Rennes Cedex, France.



5 n = 1 to 7

Short syntheses of phosphoranes 5 are described ; depending upon chain length, their Wittig reaction give various amounts of mono-, di- or triunsaturated lactones.

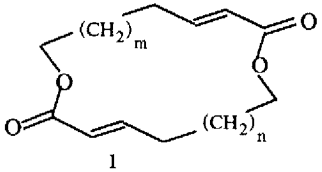
Tetrahedron Lett. 30, 7397 (1989)

A SHORT AND CONVERGENT SYNTHESIS OF UNSATURATED MACRODILACTONES.

F. Yvergnaux, Y. Le Floc'h, R. Grée.

Laboratoire de Chimie Organique Biologique, E.N.S.C.R., Av. du Gal Leclerc, 35700 Rennes, France.

A simple and versatile approach to macrodiolides 1 , using two consecutive Wittig reactions, is described.



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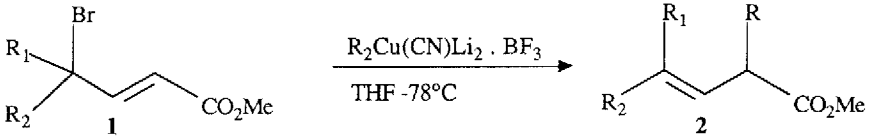
Tetrahedron Lett. 30, 7399 (1989)

REGIOSELECTIVE SN' ALLYLIC SUBSTITUTION VERSUS 1,4-ADDITION. SYNTHESIS OF α-SUBSTITUTED β,γ-UNSATURATED ESTERS.

C.GIRARD, I.ROMAIN, M. AHMAR and R. BLOCH*

Laboratoire des Carbocycles (Associé au C.N.R.S.), Institut de Chimie Moléculaire d'Orsay, Bât. 420
Université de Paris-Sud, 91405 ORSAY (France)



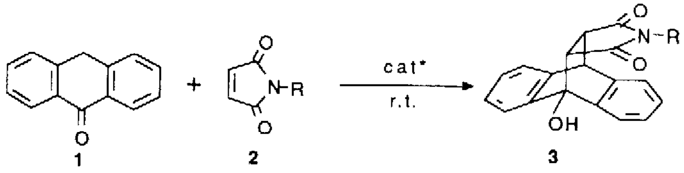
$R_1 = R_2 = -CH_3, -H$ $R_1 = -CH_3$, $R_2 = -H$ R= $-CH_3$, $-nC_4H_9$, $-CH_2{=}CH_2$, $-C_6H_5$, $-Si(CH_3)_2C_6H_5$

Tetrahedron Lett. 30, 7403 (1989)

ASYMMETRIC DIELS-ALDER REACTION CATALYZED BY CHIRAL BASES

O. RIANT and H. B. KAGAN* : Laboratoire de Synthèse Asymétrique, Université Paris-Sud, 91405 Orsay, France.

Anthrone 1 has been found to react with N-substituted maleimides 2 in presence of catalytic amounts of various chiral β-aminoalcohols (ee up to 60%).

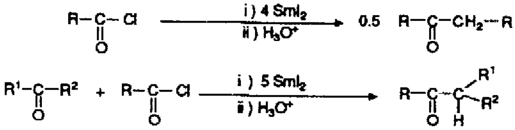


Tetrahedron Lett. 30, 7407 (1989)

REDUCTIVE COUPLINGS OF ACID CHLORIDES MEDIATED BY SmI_2

J. Collin, F. Dallemer, J.L. Namy and H.B. Kagan*.
Laboratoire de Synthèse Asymétrique Associé au CNRS,
Institut de Chimie Moléculaire d'Orsay, Université Paris-Sud, 91405 Orsay, France.

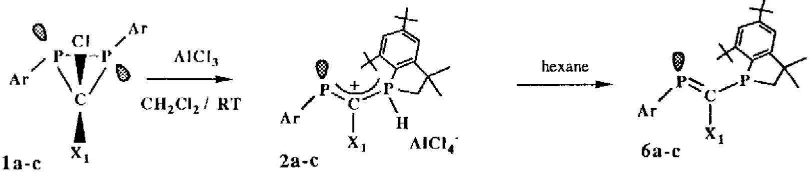
Ketones are obtained by coupling of acid chlorides or by coupling of acid chlorides with aldehydes or ketones in presence of an excess of SmI_2.



Tetrahedron Lett. 30, 7411 (1989)

CATIONIC RING OPENING OF FUNCTIONALIZED DIPHOSPHIRANES.

M. Gouygou[1],C. Tachon[1],G. Etemad-Moghadam[2],M. Koenig[1]*;[1] *UA 454* ; [2]*LCC- Université P. Sabatier -31062 Toulouse - FRANCE.*



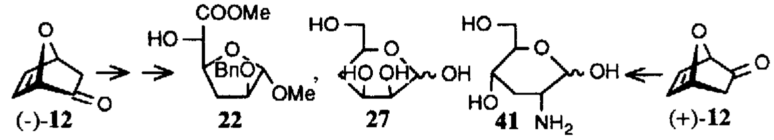
The diphosphiranes **1a-c** by action of AlCl$_3$, undergo the cationic ring opening leading to the 1,3-phosphenium-phosphonium ions **2a-c** by electrocyclic reaction. **2a-c**, taken up in hexane are instantaneously deprotonated and give the stable **6a-c**.

Tetrahedron Lett. 30, 7415 (1989)

THE ELECTRON-RELEASING HOMOCONJUGATED CARBONYL GROUP. APPLICATION TO THE TOTAL SYNTHESES OF 3-DEOXY-, 4-DEOXY-HEXOSE, LIVIDOSAMINE AND DERIVATIVES

Daniela Fattori, Etienne de Guchteneere and Pierre Vogel* Institut de chimie organique de l'Université, 2,rue de la Barre, CH-1005 Lausanne, Switzerland

The regioselective electrophilic additions of "naked sugars" (-)-**12** and (+)-**12** were exploited to develop total syntheses of deoxy hexose **22**, **27** and of D-lividosamine (**41**)

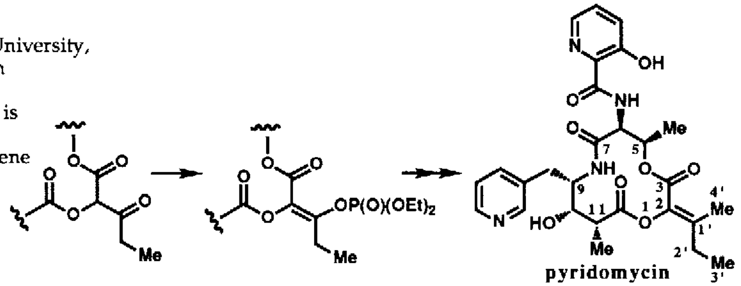


Tetrahedron Lett. 30, 7419 (1989)

TOTAL SYNTHESIS OF PYRIDOMYCIN

Mitsuhiro Kinoshita,* Masaya Nakata,
Kenji Takarada, and Kuniaki Tatsuta*
Department of Applied Chemistry, Keio University,
Hiyoshi, Kohoku-ku, Yokohama 223, Japan

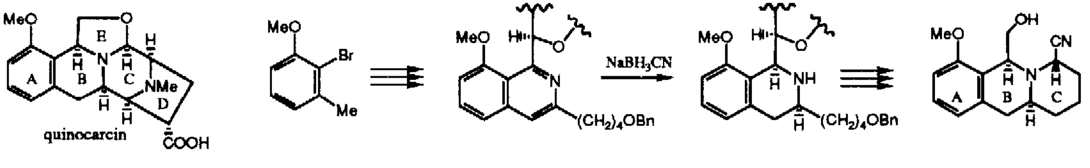
The first total synthesis of pyridomycin is described including the stereocontrolled construction of the exocyclic(Z)-*s*-butylidene moiety in the 12-membered ring system.



Tetrahedron Lett. 30, 7423 (1989)

CHIRAL SYNTHESIS OF THE ABC-RING SYSTEM OF QUINOCARCIN

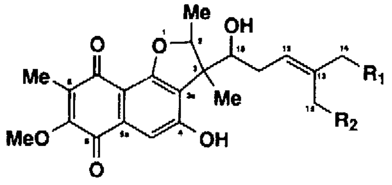
Shoichi Saito, Katsunori Tanaka, Kazuhiko Nakatani, Fuyuhiko Matsuda, and Shiro Terashima*
Sagami Chemical Research Center, Nishi-Ohnuma, Sagamihara 229, Japan



Tetrahedron Lett. 30,7427(1989)

STRUCTURES OF NOVEL ANTIBIOTICS, FURAQUINOCINS A AND B

Shinji Funayama, Masami Ishibashi, Yumi Anraku, Kanki Komiyama and Satoshi Ōmura*
The Kitasato Institute, and School of Pharmaceutical Sciences, Kitasato University, 5-9-1 Shirokane, Minato-ku, Tokyo 108, Japan



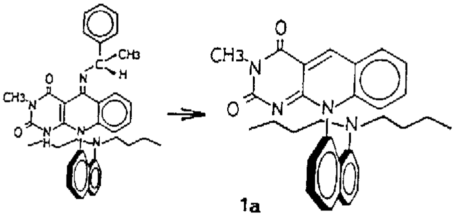
Furaquinocin A R_1=H, R_2=OH
B R_1=OH, R_2=H

Tetrahedron Lett. 30,7431(1989)

SYNTHESIS AND REACTION OF A NEW TYPE OF 5-DEAZAFLAVIN WITH AXIAL AND PLANAR CHIRALITY

Tetsuji Kawamoto,[1] Kiyoshi Tanaka,[1] Fumio Yoneda,[1] and Jun-ichi Hayami[2]
[1]Faculty of Pharmaceutical Sciences, Kyoto University, Sakyo-ku, Kyoto 606, Japan
[2]Department of Chemistry, College of Liberal Arts and Sciences, Kyoto University, Sakyo-ku, Kyoto 606, Japan

Optically pure titled compounds 1a and its enantiomer were prepared through a unique resolution. They have a marked ability of chiral recognition in a model reaction of intercoenzyme hydrogen transfer.



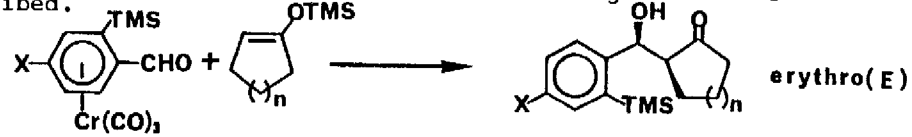
1a

Tetrahedron Lett. 30,7435(1989)

A Highly Erythro Selective Aldol Reaction Between Chromium-Complexed Benzaldehyde Derivatives and Cyclic Silyl Enol Ethers

Chisato Mukai, Won Jea Cho, and Miyoji Hanaoka*
Faculty of Pharmaceutical Sciences, Kanazawa University, Kanazawa 920 Japan

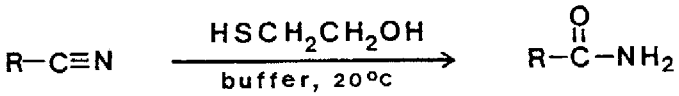
The erythro selective aldol reaction of $Cr(CO)_3$-benzaldehydes was described.



Tetrahedron Lett. 30,7439(1989)

HYDROLYSIS OF VARIOUS NITRILE COMPOUNDS TO THE AMIDES BY CATALYSIS OF 2-MERCAPTOETHANOL IN A PHOSPHATE BUFFER

Young Bok Lee, Yang Mo Goo*, Youn Young Lee[1] and Jae Keun Lee[2]
Department of Pharmacy and [1]Department of Chemistry, Seoul National University, Seoul, 151-742 and [2]Department of Chemistry, Kyoung Pook National University, Taegu, 702-701, Korea

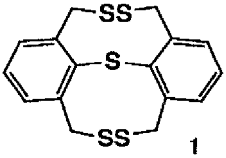


$$R-C\equiv N \xrightarrow[\text{buffer, 20°C}]{HSCH_2CH_2OH} R-\overset{\overset{O}{\|}}{C}-NH_2$$

Tetrahedron Lett. 30, 7441 (1989)

SYNTHESIS OF A NEW TYPE OF QUADRUPLY ORTHO-BRIDGED BIPHENYL COMPOUNDS WITH DISULFIDE LINKAGE, AND ITS SULFUR EXTRUSION IN CONCD H_2SO_4 AND PHOTOCHEMICAL CONDITION

Hisashi Fujihara, Jer-Jye Chiu, and Naomichi Furukawa*
Department of Chemistry, University of Tsukuba,
Tsukuba, Ibaraki 305, Japan



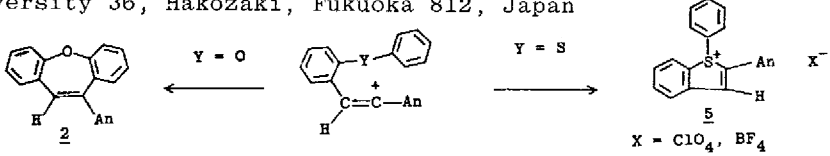
1

A new type of the sulfur extrusion of a new methanodithiomethano-bridged dibenzotrithionin (1) was found in the reaction of 1 with concd H_2SO_4 or 2 equiv of $NOPF_6$ and in its photochemical reaction.

Tetrahedron Lett. 30, 7445 (1989)

ELECTROPHILIC ADDITION TO o-ArY-SUBSTITUTED PHENYLALKYNES. A HIGHLY SELECTIVE CYCLIZATION CONTROLLED BY HETEROATOMS

Tsugio Kitamura,* Tatsuya Takachi, Hironobu Kawasato, Shinjiro Kobayashi, and Hiroshi Taniguchi*; Department of Applied Chemistry, Faculty of Engineering, Kyushu University 36, Hakozaki, Fukuoka 812, Japan

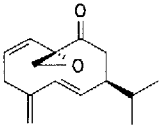


Tetrahedron Lett. 30, 7447 (1989)

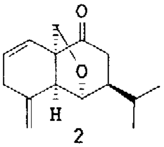
CLARIFICATION OF THE STRUCTURE OF PERSOONS'S PERIPLANONE-A, AN ARTIFACT DERIVED FROM HAUPTMANN'S PERIPLANONE-A

Shigefumi Kuwahara and Kenji Mori*
Department of Agricultural Chemistry, The University of Tokyo,
Yayoi 1-1-1, Bunkyo-ku, Tokyo 113, Japan

Thermolysis of Hauptmann's periplanone-A 1 by GLC gave Persoons's periplanone-A, of which structure was determined unambiguously to be 2.



1



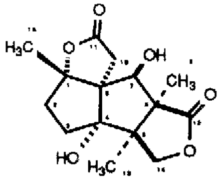
2

Tetrahedron Lett. 30, 7451 (1989)

Structure of anislactone A; a new skeletal type of sesquiterpene from the pericarps of *Illicium anisatum*

Isao Kouno,[a]* Kaori Mori,[a] Nobusuke Kawano,[a] and Sadao Sato[b]
[a]*Faculty of Pharmaceutical Sciences, Nagasaki University, Bukyo-machi 1-14, Japan and* [b]*Analytical and Metabolic Research Lab., Sankyo Co. Ltd., Hiromachi, Shinagawa-ku, Tokyo 140, Japan*

A novel sesquiterpene lactone was isolated from the pericarps of *Illicium anisatum,* a well known toxic plant in Japan, and its structure was established from spectral data and X-ray crystallographic analysis.

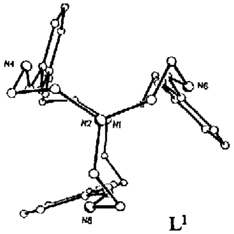


(1) anislactone A

Tetrahedron Lett. 30, 7453(1989)

SOLID STATE STRUCTURE AND SOLUTION CONFORMATION OF A MACROBICYCLIC CYCLOPHANE

Vickie McKee,[a] Ward T. Robinson,[a] Debbie McDowell[b,c] and Jane Nelson[b,c]
[a] *Dept. of Chemistry, University of Canterbury, Christchurch 1, N.Z.* [b] *Open University, 40 University Road, Belfast BT7 1SU* [c]*Dept. of Chemistry, Queen's University, Belfast, BT9 5AG*



L^1

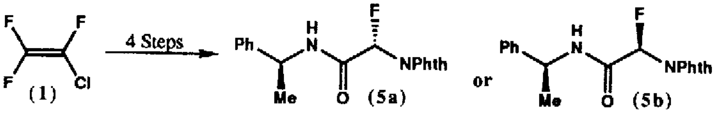
The macrobicyclic Schiff-base m-cyclophane L^1 has a conformation involving edge to face approach of aromatic rings in both solid state and solution.

Tetrahedron Lett. 30, 7457 (1989)

ASYMMETRIC SYNTHESIS OF PROTECTED α-FLUOROGLYCINES

Patrick D. Bailey,* Andrew N. Boa, Gavin A. Crofts,
Maria van Diepen, Madeleine Helliwell, Robert E. Gammon and Michael J. Harrison
Department of Chemistry, University of York, Heslington, York YO1 5DD, UK.

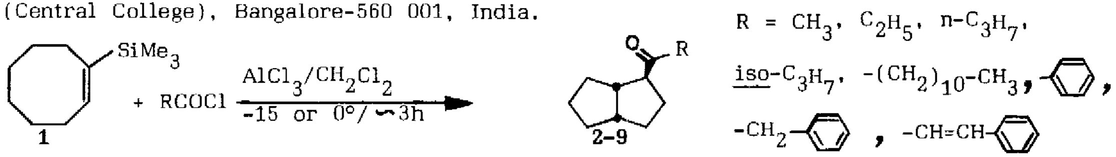
A 4 step synthesis of optically pure protected α-fluoroglycines (5a/b) of known absolute stereochemistry is described.



Tetrahedron Lett. 30, 7461(1989

A FACILE ROUTE TO BICYCLO[3.3.0]OCTANES THROUGH CLEAN TRANSANNULAR CYCLISATION OF 1-TRIMETHYLSILYLCYCLOOCTENE UNDER FRIEDEL-CRAFTS CONDITION

B.S. Bandodakar and G. Nagendrappa*
Department of Chemistry, Bangalore University
(Central College), Bangalore-560 001, India.



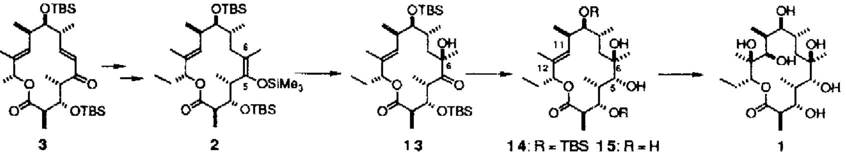
R = CH_3, C_2H_5, n-C_3H_7, iso-C_3H_7, $-(CH_2)_{10}-CH_3$, $-C_6H_5$, $-CH_2-C_6H_5$, $-CH=CH-C_6H_5$

Tetrahedron Lett. 30, 7463(1989)

STUDIES IN MACROLIDE SYNTHESIS: A HIGHLY STEREOSELECTIVE SYNTHESIS OF (+)-(9*S*)-DIHYDROERYTHRONOLIDE A USING MACROCYCLIC STEREOCONTROL.

Ian Paterson* and David J. Rawson, University Chemical Laboratory, Lensfield Road, Cambridge CB2 1EW, UK

(+)-(9*S*)-Dihydroerythronolide A, **1**, is prepared in 8 steps from macrolide **3**. The stereocontrolled introduction of the hydroxyl groups at C_6, C_{11}, and C_{12} is achieved by osmylation, **2** → **13** and **15** → **1**, while that at C_5 is obtained by a $Zn(BH_4)_2$ reduction, **13** → **14**.



Tetrahedron Lett. 30, 7467 (1989)

C-C BOND CLEAVAGE IN THE INTERACTION OF ANTHRAQUINONE TRIPLET WITH TERTIARY ALCOHOLS AND TERTIARY BUTYL BENZENE

G.Móger and M.Győr
Central Research Institute for Chemistry, Hungarian Academy of Sciences, H-1525 Budapest, P.O.Box 17, Hungary

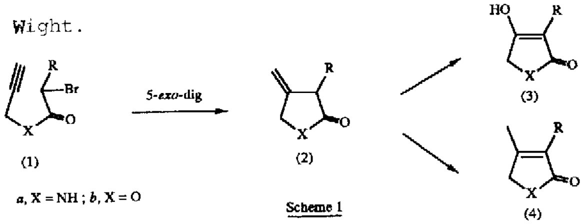
In the photochemical reaction of anthraquinone triplet with both tertiary alcohols and tert. Bu-benzene in C_6H_6 at $\lambda \geqq 334$ nm not only C-H (or O-H) bonds but C-C bonds are also broken, yielding CH_3, and $R_1\dot{C}(R_2)OH$ (or $C_6H_5\dot{C}(CH_3)_2$) radicals, at room temperature.

Tetrahedron Lett. 30, 7469 (1989)

RADICAL CYCLISATIONS OF PROPARGYL BROMOAMIDES AND PROPARGYL BROMOESTERS. NEW ROUTES TO TETRAMIC ACIDS, PYRROLINONES, TETRONIC ACIDS AND BUTENOLIDES.

John M. Clough, Gerald Pattenden* and Paul G. Wight.
Department of Chemistry, The University,
Nottingham, NG7 2RD.

Radical cyclisations of (1) produce precursors (2) to the title compounds (3) and (4).



Scheme 1
