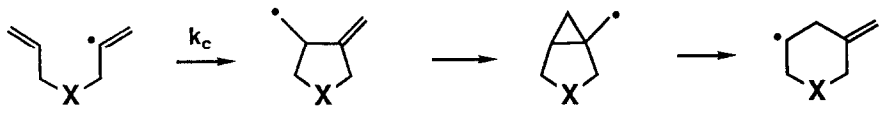
GRAPHICAL ABSTRACTS

Tetrahedron Lett.27,4525(1986)



$X = CH_2$ or O

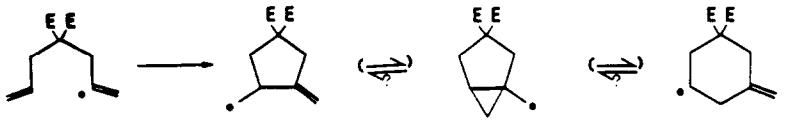
Formation of endo products in vinyl radical cyclisations involves rearrangment of the initially formed exo radical. Kinetic data have been obtained.

Tetrahedron Lett.27,4529(1986)

FIVE VS SIX MEMBERED RING FORMATION IN THE VINYL RADICAL CYCLIZATION

Gilbert Stork* and Robert Mook, Jr.
Department of Chemistry, Columbia University, New York, N.Y. 10027

Methylenecyclopentyl radicals kinetically formed by vinyl radical cyclization can rearrange to methylenecyclohexyl systems.

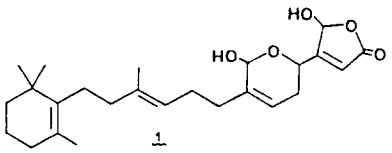


Tetrahedron Lett.27,4533(1986)

TOTAL SYNTHESIS OF MANOALIDE

Michael E. Garst, Elizabeth A. Tallman, John N. Bonfiglio, Dale Harcourt, Eva B. Ljungwe and Anne Tran
Discovery Research, Eye and Skin Care Group, Allergan Pharmaceuticals, Inc., 2525 Dupont Drive, Irvine, CA 92715

An eight step synthesis of manoalide (1) from β-ionone is reported.

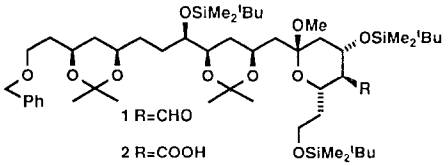


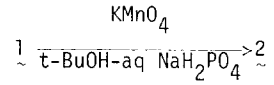
1

Tetrahedron Lett.27,4537(1986)

$KMnO_4$ REVISITED: OXIDATION OF ALDEHYDES TO CARBOXYLIC ACIDS IN THE tert-BUTYL ALCOHOL NaH_2PO_4 SYSTEM

Atsushi Abiko, John C. Roberts, Toshiro Takemasa, and Satoru Masamune*
Department of Chemistry, Massachusetts Institute of Technology, Cambridge, Massachusetts 02139





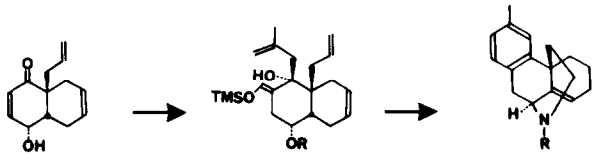
Conversion of 1 to 2 is achieved with $KMnO_4$ in t-BuOH-aqueous NaH_2PO_4. Many other examples are also described.

AROMATIC ANNELATION. A SYNTHESIS OF (±)-3-METHYL-8,14-DEHYDROMORPHINAN

Tetrahedron Lett.27,4541(1986)

Marcus A. Tius* and Andrew Thurkauf
Department of Chemistry, University of Hawaii, Honolulu, HI 96822, U.S.A.

The title compound has been prepared by an aromatic annelation reaction.

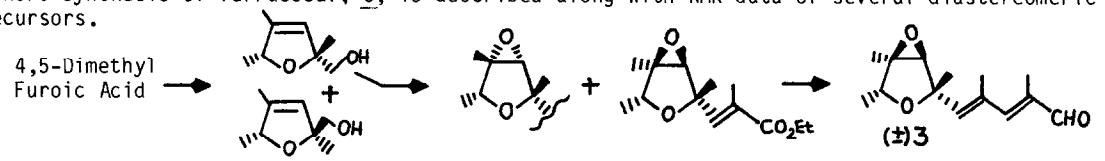


SYNTHETIC STUDIES TOWARD VERRUCOSIDIN: SYNTHESIS OF (±)VERRUCOSAL

Tetrahedron Lett.27,4545(1986)

Larry L. Klein
Department of Chemistry, Texas A&M University, College Station, TX 77843 USA

A short synthesis of verrucosal, 3, is described along with NMR data of several diastereomeric precursors.

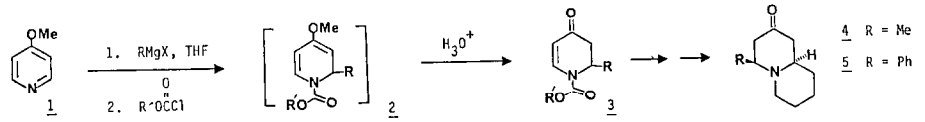


ADDITION OF GRIGNARD REAGENTS TO 1-ACYL-4-METHOXY-PYRIDINIUM SALTS. AN APPROACH TO THE SYNTHESIS OF QUINOLIZIDINONES.

Tetrahedron Lett.27,4549(1986)

Daniel L. Comins* and Jack D. Brown
Department of Chemistry and Biochemistry, Utah State University, Logan, Utah 84322-0300 USA

The quinolizidinones 4 and 5 were synthesized from 4-methoxypyridine.

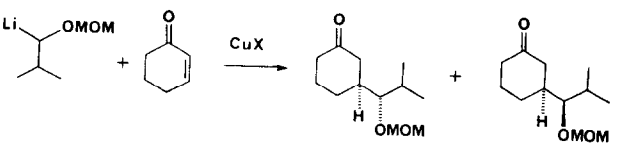


THE SYNTHESIS AND STEREOSELECTIVE CONJUGATE ADDITION REACTIONS OF α-ALKOXYORGANOCUPRATES

Tetrahedron Lett.27,4553(1986)

Russell J. Linderman* and Alex Godfrey
Department of Chemistry, North Carolina State University, Raleigh, N.C. 27695

The preparation and conjugate addition reactions of α-alkoxyorganocuprate reagents are reported. The cyano cuprate generated from 1 undergoes diastereoselective conjugate addition reactions with up to 8:92 selectivity.

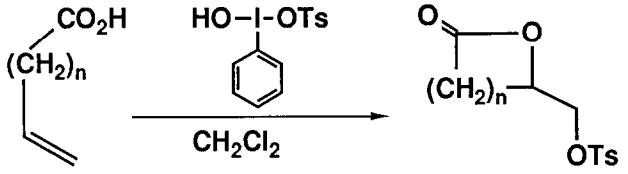


Tetrahedron Lett.27,4557(1986)

TOSYLOXYLACTONIZATION OF ALKENOIC ACIDS WITH [HYDROXY(TOSYLOXY)IODO]BENZENE

Mayur Shah, Michael J. Taschner*, Gerald F. Koser*, and Nancy L. Rach
Department of Chemistry, University of Akron, Akron, Ohio 44325

The reactions of various alkenoic acids with [hydroxy(tosyloxy)iodo]benzene to produce tosyloxylactones and, in some cases, unsaturated lactones are described.

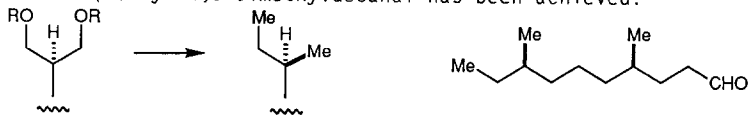


Tetrahedron Lett.27,4561(1986)

DIASTEREOTOPIC GROUP SELECTIVITY AT A PROSTEREOGENIC CARBON CENTER: SYNTHESIS OF (±)-SYN-4,8-DIMETHYLDECANAL

Stuart L. Schreiber and Bernard Hulin, Department of Chemistry, Sterling Chemistry Laboratory, New Haven, CT 06511 USA.

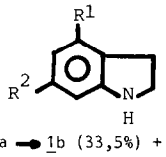
A group selective dealkylation reaction of a bridged ketal with trimethylsilyl iodide serves to control stereochemistry at carbon centers that are separated by five atoms. In combination with the iron/copper promoted fragmentation reaction of a hydroperoxide, a new synthesis of (±)-syn-4,8-dimethyldecanal has been achieved.



Tetrahedron Lett.27,4565(1986)

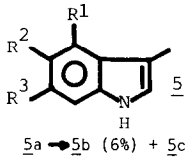
HYDROXYLATION OF INDOLINES AND INDOLES BY HYDROGEN PEROXIDE IN SUPERACIDS

C.BERRIER, J.C. JACQUESY*, M.P. JOUANNETAUD and A. RENOUX
Laboratoire de CHIMIE XII-Faculté des Sciences - CNRS UA N° 489 "Synthèse et Réactivité de Produits Naturels"- 40, avenue du Recteur Pineau - 86022 POITIERS Cedex (France)



1 : a $R^1 = R^2 = H$; b R^1 = OH, R^2 = H ; c R^1 = H, R^2 = OH

1a → 1b (33,5%) + 1c (42,5%)



5 : a $R^1 = R^2 = R^3 = H$; b R^1 = OH, $R^2 = R^3$ = H ; c $R^1 = R^3$ = H, R^2 = OH ; d $R^1 = R^2$ = H, R^3 = OH

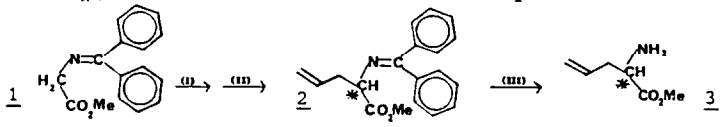
5a → 5b (6%) + 5c (31%) + 5d (18%)

Tetrahedron Lett.27,4573(1986)

SYNTHESIS OF α-AMINO ACIDS[1]. SCHIFF BASE OF GLYCINE METHYL ESTER. A NEW EFFICIENT PROCHIRAL NUCLEOPHILE IN PALLADIUM CHIRAL CATALYTIC ALLYLATION.

J.P. GENET*, D. FERROUD, S. JUGE and J. RUIZ MONTES.
Laboratoire de Chimie Organique et Organométallique. 8, rue Cuvier, 75005 Paris, FRANCE

Catalytic : (1,5-3%) Palladium-chiral complexes have been used (12 chiral ligands have been tested) (+) or (-) DIOP appeared to be the more efficient : up to 57%ee.



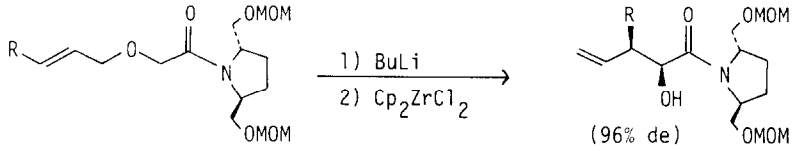
1 2 3

(I) LDA, THF-78°C ; (II) CH_2=$CHCH_2OAc$; Pd (dba)$_2$ + L* ; (III) HCl 10% then K_2CO_3

Tetrahedron Lett.27,4577(1986)

ASYMMETRIC [2,3]WITTIG REARRANGEMENT OF 2'-ALKENYLOXY-ACETOAMIDE BEARING TRANS-2,5-BIS(METHOXYMETHOXYMETHYL)-PYRROLIDINE MOIETY AS CHIRAL AUXILIARY

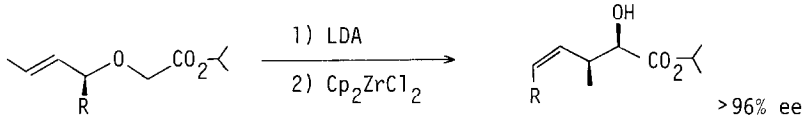
M.Uchikawa, T.Hanamoto, T.Katsuki,* and M.Yamaguchi
Department of Chemistry, Kyushu University 33, Higashi-ku, Fukuoka 812, Japan



Tetrahedron Lett.27,4581(1986)

[2,3]WITTIG REARRANGEMENT OF 2'-ALKENYLOXYACETIC ACID ESTERS

M.Uchikawa, T.Katsuki, and M.Yamaguchi
Department of Chemistry, Faculty of Science, Kyushu University 33, Higashi-ku, Fukuoka 812, Japan

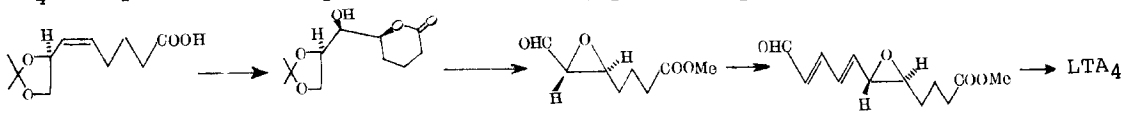


Tetrahedron Lett.27,4583(1986)

A FACILE STEREOSELECTIVE SYNTHESIS OF LEUKOTRIENE A_4 (LTA_4) METHYL ESTER

Yanfang Wang, Jincui Li, Yulin Wu, Yaozeng Huang, Lilan Shi, Jianhua Yang, Shanghai Institute of Organic Chemistry, Academia Sinica, Shanghai, China.

LTA_4 methyl ester was synthesized from D-glyceraldehyde according to Scheme.

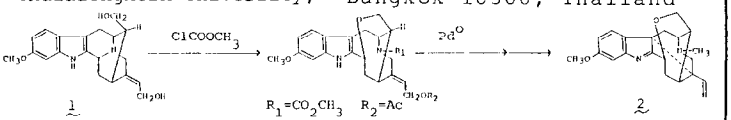


Tetrahedron Lett.27,4585(1986)

BIOMIMETIC SYNTHESIS OF KOUMINE SKELETON: PARTIAL SYNTHESIS OF 11-METHOXYKOUMINE(GELSEMIUM-TYPE ALKALOID) FROM 18-HYDROXYGARDNERINE

Shin-ichiro Sakai,*[a] Etsuji Yamanaka,[a] Mariko Kitajima,[a] Masaki Yokota,[a] Norio Aimi,[a] Sumphan Wongseripatana,[b] Dhavadee Ponglux[b]
Faculty of Pharmaceutical Sciences, Chiba University,[a] 1-33, Yayoi, Chiba 260, Japan
Faculty of Pharmaceutical Sciences, Chulalongkorn University,[b] Bangkok 10500, Thailand

Biogenetic route of Koumine was proved by the partial synthesis of 11-methoxykoumine (2) from 18-hydroxygardnerine(1).

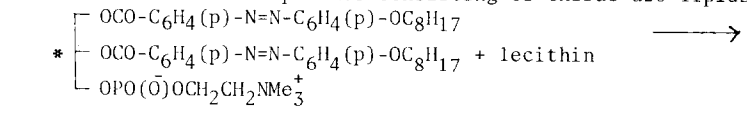


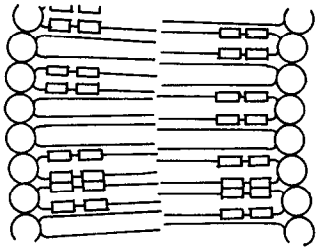
Tetrahedron Lett.27,4589(1986)

CIRCULAR DICHROISM ACTIVE ARTIFICIAL PHOSPHOLIPIDS FOR THE STUDY OF MOLECULAR MEMBRANE DYNAMICS FOCUSED ON LIPID-LIPID INTERACTION

I.Tabushi*[1], T.Nishiya[2]
1. Department of Synthetic Chemistry, Kyoto University, Kyoto 606 Japan 2. Artificial Cells and Organs Research Centre, McGill University, Montreal PQ, Canada

CD active artificial liposomes consisting of chiral azo lipids



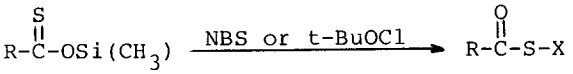


Tetrahedron Lett.27,4593(1986)

THIOPHILIC HALOGENATION OF THIOCARBOXYLIC ACID O-SILYL ESTERS. A FACILE PREPARATION OF ACYLSULFENYL HALIDES

Toshiaki Murai, Shigeru Oida, Shi Min, and Shinzi Kato*
Department of Chemistry, Gifu University, Yanagido, Gifu 501-11, Japan

A facile route to acylsulfenyl halides **2** by using thiocarboxylic acid O-silyl esters **1**



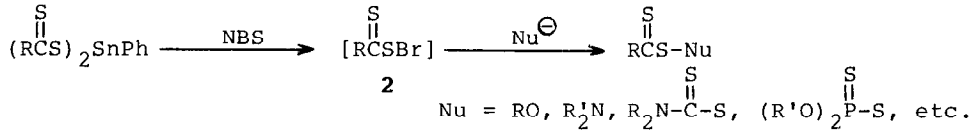
1 **2**

Tetrahedron Lett.27,4595(1986)

THIOACYLSULFENYL BROMIDES: ELECTROPHILIC DITHIOCARBOXYLATING REAGENTS

Shinzi Kato,* Yoshitaka Ono, Kenji Miyagawa, Toshiaki Murai, and Masaru Ishida
Department of Chemistry, Gifu University, Yanagido, Gifu 501-11, Japan

A synthesis of thioacylsulfenyl bromides **2** and unsymmetrical disulfides

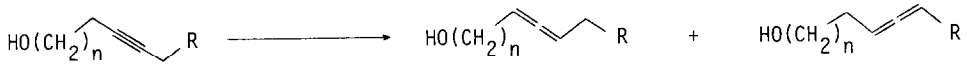


2

Tetrahedron Lett.27,4599(1986)

HIGHLY REGIOSELECTIVE ISOMERIZATION OF ACETYLENES TO ALLENES

Masayuki ENOMOTO, Tsutomu KATSUKI,* and Masaru YAMAGUCHI
Department of Chemistry, Faculty of Science, Kyushu University 33, Hakozaki, Higashi-ku, Fukuoka 812, Japan



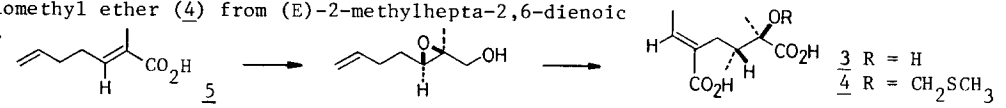
(n= 1-3) 5-20 : 1

Tetrahedron Lett.27,4601(1986)

TOTAL SYNTHESIS OF OPTICALLY ACTIVE INTEGERRIMINE, A TWELVE-MEMBERED DILACTONIC PYRROLIZIDINE ALKALOID OF RETRONECINE TYPE. I. ENANTIOSELECTIVE SYNTHESIS OF THE PROTECTED (+)-INTEGERRINECIC ACID

Haruki Niwa,* Yasuyoshi Miyachi, Youichi Uosaki, and Kiyoyuki Yamada*
Department of Chemistry, Faculty of Science, Nagoya University, Chikusa, Nagoya 464, Japan

Enantioselective synthesis of (+)-integerrinecic acid (3) and (+)-integerrinecic acid methylthiomethyl ether (4) from (E)-2-methylhepta-2,6-dienoic acid (5).



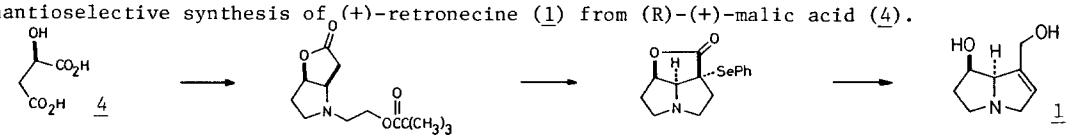
3 R = H
4 R = CH_2SCH_3

Tetrahedron Lett.27,4605(1986)

TOTAL SYNTHESIS OF OPTICALLY ACTIVE INTEGERRIMINE, A TWELVE-MEMBERED DILACTONIC PYRROLIZIDINE ALKALOID OF RETRONECINE TYPE. II. ENANTIOSELECTIVE SYNTHESIS OF (+)-RETRONECINE

Haruki Niwa,* Yasuyoshi Miyachi, Osamu Okamoto, Youichi Uosaki, and Kiyoyuki Yamada*
Department of Chemistry, Faculty of Science, Nagoya University, Chikusa, Nagoya 464, Japan

Enantioselective synthesis of (+)-retronecine (1) from (R)-(+)-malic acid (4).

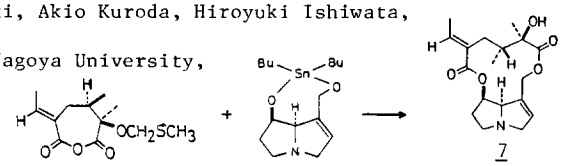


Tetrahedron Lett.27,4609(1986)

TOTAL SYNTHESIS OF OPTICALLY ACTIVE INTEGERRIMINE, A TWELVE-MEMBERED DILACTONIC PYRROLIZIDINE ALKALOID OF RETRONECINE TYPE. III. REGIOSELECTIVE ELABORATION OF THE UNSYMMETRICAL TWELVE-MEMBERED DILACTONE AND TOTAL SYNTHESIS OF (-)-INTEGERRIMINE

Haruki Niwa,* Yasuyoshi Miyachi, Youichi Uosaki, Akio Kuroda, Hiroyuki Ishiwata, and Kiyoyuki Yamada*
Department of Chemistry, Faculty of Science, Nagoya University, Chikusa, Nagoya 464, Japan

Enantioselective total synthesis of (-)-integerrimine (7).

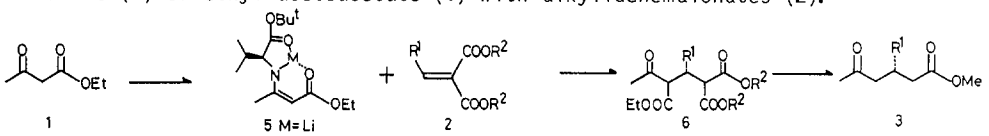


Tetrahedron Lett.27,4611(1986)

ENANTIOFACE DIFFERENTIATING MICHAEL REACTION OF ETHYL ACETOACETATE WITH ALKYLIDENEMALONATES VIA CHIRAL ENAMINE

Kiyoshi Tomioka, Kōsuke Yasuda, and Kenji Koga*
Faculty of Pharmaceutical Sciences, University of Tokyo, Hongo, Bunkyo-ku, Tokyo 113, Japan

Asymmetric synthesis of 3 in 55-93% ee via Michael reaction of the L-valine-based chiral lithioenamine (5) of ethyl acetoacetate (1) with alkylidenemalonates (2).



Tetrahedron Lett.27,4615(1986)

PALLADIUM-CATALYZED DECARBONYLATION OF TRICYCLIC BRIDGEHEAD ACID CHLORIDES

Kimihiko Hori, Masatomo Ando, Naotake Takaishi,* and Yoshiaki Inamoto
Tochigi Research Laboratories, Kao Corporation,
2606 Akabane, Ichikaimachi, Tochigi 321-34, Japan

Tetrahedron Lett.27,4623(1986)

NEW SYNTHETIC 'TRICKS'. ADVANTAGES OF USING Et_3P IN SOME PHOSPHORUS-BASED REACTIONS

Fèlix Urpí and Jaume Vilarrasa

Departament de Química Orgànica, Facultat de Química, Universitat de Barcelona(III)

Substitution of Et_3P for Ph_3P, Bu_3P, etc. is beneficial —milder conditions, better yields, simpler work-up— to several reactions such as:

$$RCOOH + N_3R' + Et_3P \longrightarrow RCONHR' + Et_3PO + N_2$$

$$RCOOH + R'SSR' + Et_3P \longrightarrow RCOSR' + Et_3PO + R'SH$$

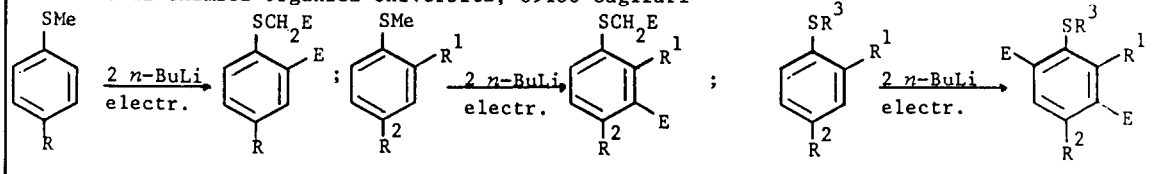
$$R_2C{=}NOH \xrightarrow{R'SSR',\ Et_3P} \xrightarrow{H_2O} R_2C{=}O$$

Tetrahedron Lett.27,4625(1986)

METALATION REACTIONS. IX. DILITHIATION OF AROMATIC THIOETHERS

Salvatore Cabiddu, Costantino Floris and Stefana Melis
Istituto di Chimica Organica Università, 09100 Cagliari

R = H,Me; R^1,R^2 = H,OMe; $R^3 \neq$ Me

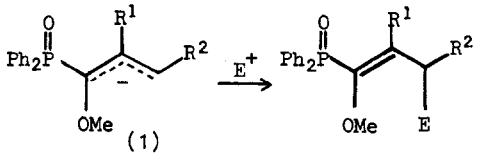


Tetrahedron Lett.27,4635(1986)

THE REACTIONS OF α-ALKOXYALLYLPHOSPHINE OXIDE YLIDES WITH SILICON, SULPHUR, AND PHOSPHORUS ELECTROPHILES.

Dipak K. Devchand, Alistair W. Murray* and Elizabeth Smeaton
Chemistry Department, The University, Dundee, DD1 4HN, Scotland, U.K..

Anions (1), derived from α-methoxyallylphosphine oxides, react with silicon, sulphur and phosphorus electrophiles (E^+) in a highly regioselective fashion to give the products of γ-attack.

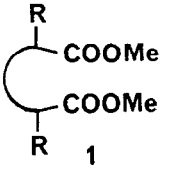


Tetrahedron Lett.27,4639(1986)

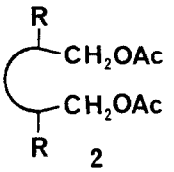
ENZYMES IN ASYMMETRIC SYNTHESIS: EFFECT OF REACTION MEDIA ON PLE CATALYSED HYDROLYSIS OF DIESTERS

Giuseppe Guanti,* Luca Banfi, Enrica Narisano, Renata Riva, and Sergio Thea
Istituto di Chimica Organica e C.N.R., Centro di Studio sui Diariloidi, corso Europa 26, Genova (Italy).

Organic cosolvents and other addenda can influence the rate and the enantioselectivity of PLE catalysed hydrolysis of certain meso diesters 1 and diacetates 2.



1



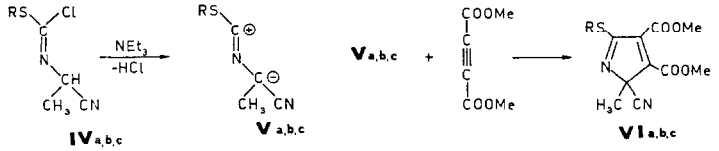
2

Tetrahedron Lett.27,4643(1986)

A NOVEL CLASS OF NITRILE YLIDE

Ricardo Bossio, Stefano Marcaccini*, and Roberto Pepino
Dipartimento di Chimica Organica, Università di Firenze, 50121 Firenze, Italy

Synthesis of Dimethyl 5-Arylthio-2-cyano-2-methyl-2H-pyrrole-3,4-dicarboxylates (VIa-c).



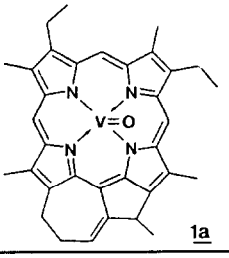
IVa,b,c Va,b,c VIa,b,c

Tetrahedron Lett.27,4653(1986)

A NOVEL FOSSIL PORPHYRIN WITH A FUSED RING SYSTEM: EVIDENCE FOR WATER COLUMN TRANSFORMATION OF CHLOROPHYLL?

M. I. Chicarelli and J.R. Maxwell*
Organic Geochemistry Unit, School of Chemistry, University of Bristol, Cantock's Close, Bristol BS8 1TS, U.K.

Isolation of free base of 1a from demetallated vanadyl porphyrins of Serpiano oil shale; identification by ^{1}H NMR using n.O.e. and decoupling experiments.



1a