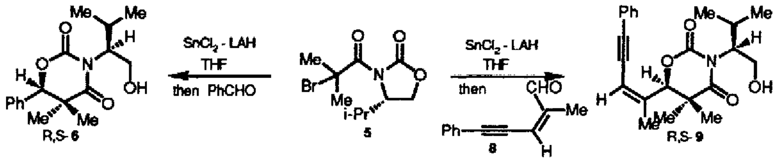
GRAPHICAL ABSTRACTS

Tetrahedron Lett. 30,5821(1989)

ENANTIOSELECTIVE SYNTHESIS OF THE α,α-DIMETHYL-β-HYDROXY ACID SUBUNIT OF THE OXAZOLOMYCIN ANTIBIOTICS

Andrew S. Kende,* Kuniaki Kawamura and Michael J. Orwat
Department of Chemistry, University of Rochester, Rochester, New York 14627

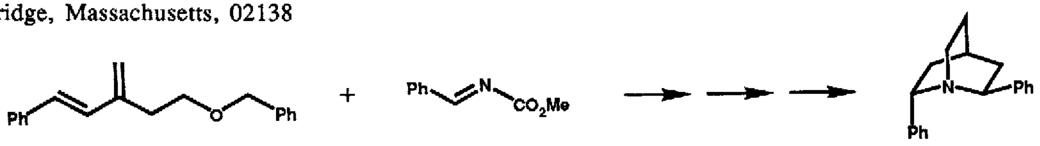
Reductive generation of the Sn(II) enolate from **5**, then reaction with PhCHO or enal **8** yields R,S-**6** or R,S-**9** with >94% d.e. Removal of the chiral auxiliary produces a homochiral model of the C-1' to C-5' segment of the oxazolomycin antibiotics.



Tetrahedron Lett. 30,5825(1989)

A SHORT, STEREOSPECIFIC ROUTE TO CHIRAL *TRANS*-2,6-DISUBSTITUTED QUINUCLIDINES

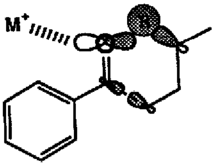
E. J. Corey and Po-wai Yuen
Department of Chemistry, Harvard University
Cambridge, Massachusetts, 02138



Tetrahedron Lett. 30,5829(1989)

Modification of Photochemical Reactivity by Zeolites: Cation Enhanced α-Cleavage of Aryl alkyl ketones Included in Faujasites.

V. Ramamurthy*, D. R. Corbin, N. J. Turro and Y. Sato
Central Research and Development Department, E. I. du Pont de Nemours and Company, Wilmington, Delaware 19880 and
Department of Chemistry, Columbia University, New York, NY 10027

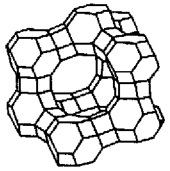


Cations such as lithium and sodium present within the supercages of faujasites favour the a-cleavage of the included arylalkyl ketones upon photolysis.

Tetrahedron Lett. 30,5833(1989)

Modification of Photochemical Reactivity by Zeolites: Role of Cations in Controlling the Behavior of Radicals Generated within Faujasites.

V. Ramamurthy*, D. R. Corbin, D. F. Eaton and N. J. Turro
Central Research and Development Department, E. I. du Pont de Nemours and Company, Wilmington, Delaware 19880-0328 and
Department of Chemistry, Columbia University, New York, NY 10027

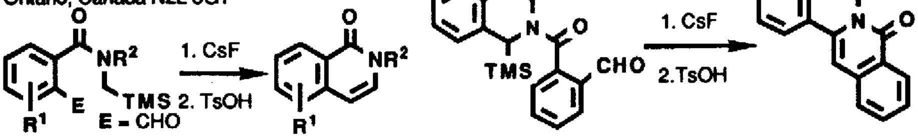

Zeolite X & Y

α-Alkyl dibenzylketones included in cation exchanged faujasite type zeolites show photobehavior different from that in isotropic organic solvents.

Tetrahedron Lett. 30, 5837 (1989)

α'-SILYLATED TERTIARY BENZAMIDES AS DUAL ORTHO- AND α'-CARBANION SYNTHONS. CARBODESILYLATIVE ROUTES TO ISOQUINOLINE AND DIBENZOQUINOLIZIDINE DERIVATIVES

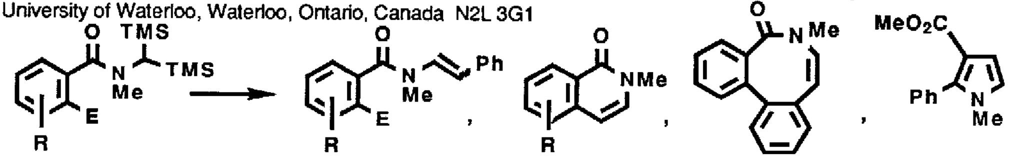
J.-C. Cuevas and V. Snieckus, Guelph-Waterloo Centre for Graduate Work in Chemistry, University of Waterloo, Waterloo, Ontario, Canada N2L 3G1



Tetrahedron Lett. 30, 5841 (1989)

α',α'-DISILYLATED TERTIARY BENZAMIDES AS DUAL ORTHO α'-CARBANION SYNTHONS. AMIDE PETERSON OLEFINATION ROUTES TO N-BENZOYL ENAMINES, ISOQUINOLINES, AND DIBENZAZOCINES

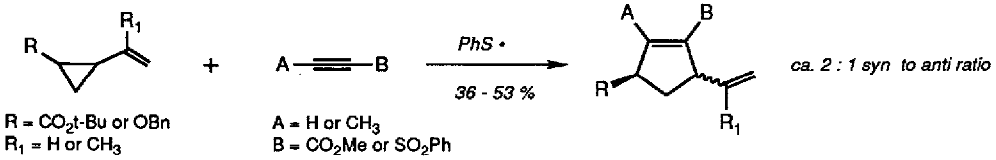
J.-C. Cuevas, P. Patil, and V. Snieckus; Guelph-Waterloo Centre for Graduate Work in Chemistry
University of Waterloo, Waterloo, Ontario, Canada N2L 3G1



Tetrahedron Lett. 30, 5845 (1989)

VINYLCYCLOPENTENE SYNTHESIS VIA PHENYLTHIO RADICAL CATALYSED ADDITION OF ELECTRON DEFICIENT ALKYNES TO SUBSTITUTED VINYLCYCLOPROPANES

Ken S. Feldman*, Robert E. Ruckle, Jr., and Anthony Romanelli
Department of Chemistry, The Pennsylvania State University, University Park, PA 16802

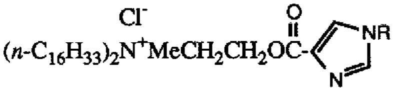


Tetrahedron Lett. 30, 5849 (1989)

SELECTIVE ACETYLATION OF STEROLS IN IMIDAZOLE-FUNCTIONALIZED SURFACTANT VESICLES

Robert A. Moss and Yukihisa Okumura, Department of Chemistry,
Rutgers University, New Brunswick, NJ 08903

Imidazole-functionalized surfactant coaggregates based on 1 transfer acetyl groups stereoselectively to 3β vs 3α-cholestanol, and regioselectively to 3β vs 6β-cholestanol. 1-Ac is the actual transfer agent.

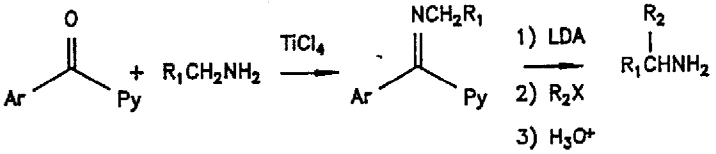


1, R = H; **1-Ac**, R = $COCH_3$

Tetrahedron Lett. 30,5853(1989)

ALKYLATION OF 2-AZAALLYL ANIONS; A VERSATILE PRIMARY AMINE SYNTHESIS

Joseph M. Hornback* and Balasingam Murugaverl
Department of Chemistry, University of Denver, Denver, Colorado 80208, USA

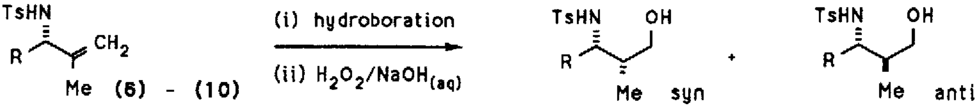


Tetrahedron Lett. 30,5857(1989)

SUBSTRATE-CONTROLLED DIASTEREOSELECTIVITY IN CATALYZED AND UNCATALYZED HYDROBORATIONS OF ALLYLIC AMINE DERIVATIVES

Kevin Burgess and Michael J. Ohlmeyer
Chemistry, Rice University, Houston, Texas 77251

Hydroboration of the protected, homochiral allylic amines (6) - (10) with 9-BBN,and with catecholborane/rhodium catalyst, give different stereoselectivities.

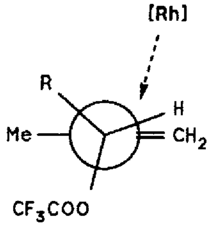


Tetrahedron Lett. 30,5861(1989)

ON CATALYZED AND UNCATALYZED HYDROBORATIONS OF CHIRAL ALLYLIC- ALCOHOLS AND AMINES

Kevin Burgess and Michael J. Ohlmeyer
Chemistry, Rice University, Houston, Texas 77251

A model for predicting the sense of diastereoselection in catalyzed hydroborations of allylic alcohol and allylic amine derivatives is discussed.

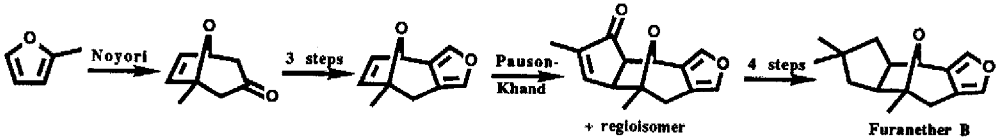


Tetrahedron Lett. 30,5865(1989)

EFFICIENT SYNTHETIC ENTRY TO OXYGEN-BRIDGED LACTARANES USING ORGANOMETALLIC METHODOLOGY: A SHORT SYNTHESIS OF FURANETHER B

Mary E. Price and Neil E. Schore

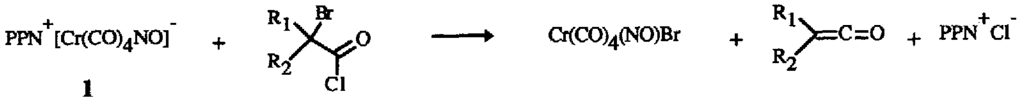
Department of Chemistry, University of California, Davis, California 95616, U. S. A.



Tetrahedron Lett.30,5869(1989)

LOW TEMPERATURE KETENE PREPARATIONS USING NITROSYLTETRACARBONYLCHROMIUM (-II) ANION

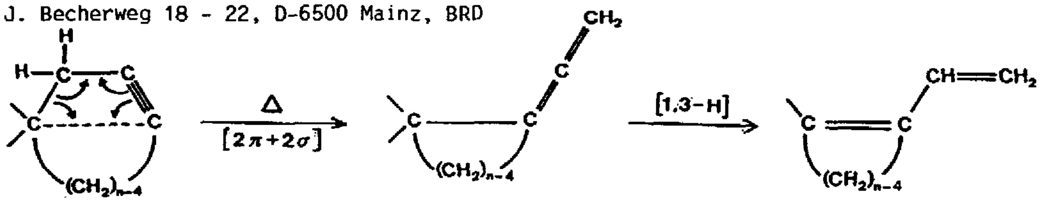
By A.P. Masters and T.S. Sorensen*
Department of Chemistry, University of Calgary, Calgary, Alberta, T2N 1N4, Canada.



Tetrahedron Lett.30,5873(1989)

CYCLOALKIN-VINYLIDENCYCLOALKAN-UMLAGERUNGEN

Herbert Meier*, Markus Schmitt, Institut für Organische Chemie der Universität Mainz, J.J. Becherweg 18 - 22, D-6500 Mainz, BRD

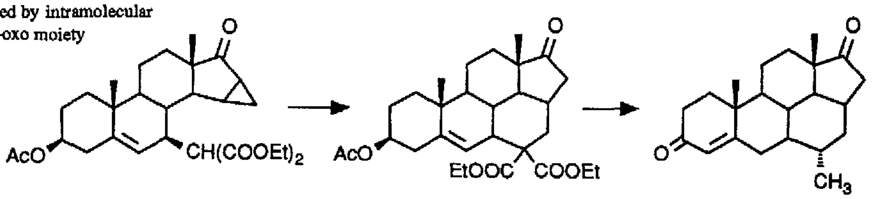


Tetrahedron Lett.30,5877(1989)

Synthese von pentacyclischen 7β,15β-Ethano-Steroiden

Klaus Nickisch*, Dieter Bittler und Henry Laurent
Forschungslaboratorien der Schering AG Berlin und Bergkamen
Müllerstraße 170-178, D-1000 Berlin 65

7β,15β-Ethano steroids are synthesized by intramolecular opening of a 15β,16β-methylene-17-oxo moiety with a 7β-malonyl ester function.

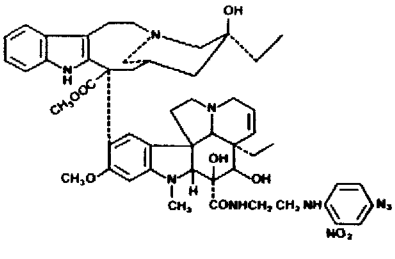


Tetrahedron Lett.30, 5881 (1989)

SYNTHESIS OF NAPAVIN, A NEW PHOTOREACTIVE DERIVATIVE OF VINBLASTINE

Georgios Nasioulas[a], Klaus Grammbitter[a], Koert Gerzon[b], and Herwig Ponstingl[a]*
Institute of Cell and Tumor Biology, German Cancer Research Center, D-6900 Heidelberg, Federal Republic of Germany;[a]
Department of Pharmacology and Toxicology, School of Medicine, Indiana University, Indianapolis, IN 46223, U.S.A.[b]

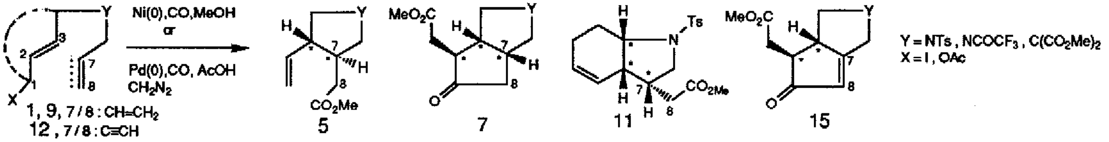
The synthesis of 3-[[[2-amino(4-azido-2-nitrophenyl)ethyl]amino]-carbonyl]-O^4-deacetyl-3-de-(methoxycarbonyl)-vincaleukoblastine (napavin) from vinblastine is described.



Tetrahedron Lett. 30, 5883 (1989)

DIASTEREOCONTROLLED NICKEL(0)- AND PALLADIUM(0) CATALYZED "METALLO-ENE-TYPE" CYCLIZATIONS/ CARBONYLATIONS

Wolfgang Oppolzer*, Thomas H. Keller, Manuel Bedoya-Zurita and Charles Stone
Département de Chimie Organique, Université de Genève, CH-1211 Genève 4, Switzerland



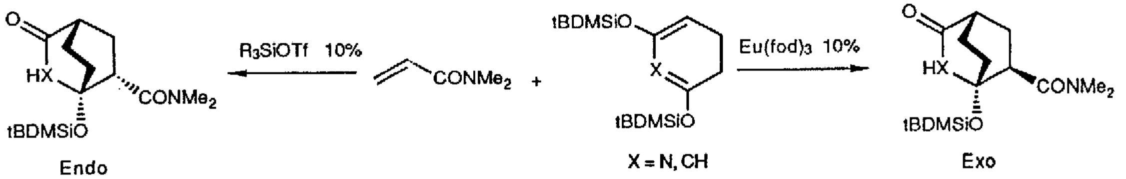
5 7 11 15

Cyclizations are selectively catalyzed: **1** → **5** and **9** → **11** (Pd(0)); **1** → **7** and **12** → **15** (Ni(0)).

Tetrahedron Lett. 30, 5887 (1989)

STEREOCHEMICAL VARIATIONS IN THE DIELS-ALDER REACTIONS OF SILOXYDIENES WITH N,N-DIMETHYL ACRYLAMIDE. A REMARKABLE INFLUENCE OF THE LEWIS ACID CATALYST.

Hélène Lamy-Schelkens, Donatella Giomi and Léon Ghosez*
Laboratoire de Chimie Organique de Synthèse, Université Catholique de Louvain,
Place L. Pasteur, 1 - B-1348 Louvain-La-Neuve, BELGIUM

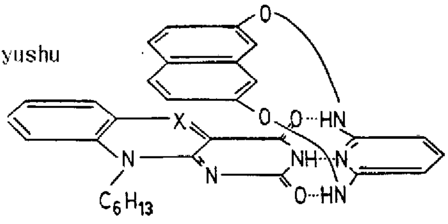


Tetrahedron Lett. 30, 5895 (1989)

SPECIFIC INHIBITION OF FLAVIN CATALYSES BY A "MOLECULAR HINGE"

S. Shinkai* G.-X. He, T. Matsuda, A. D. Himilton,* and
H. S. Rosenzweig
Department of Organic Synthesis, Faculty of Engineering, Kyushu University, Fukuoka 812, Japan; Department of Chemistry, Princeton University, Princeton, New Jersey 08544, U.S.A.

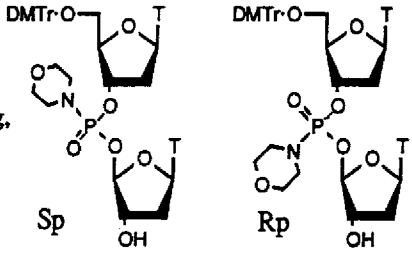
An artifical receptor having both a 2,6-diamidopyridine hydrogen-bonding site and a naphthalene stacking site selectively quenched flavin fluoresence and inhibited flavin-mediated photo-oxidation.



Tetrahedron Lett. 30, 5899 (1989)

SYNTHESIS, ISOLATION AND CHARACTERIZATION OF DIASTEREOCHEMICALLY PURE DITHYMIDINE PHOSPHORMORPHOLIDATE DERIVATIVES

H. Ozaki[1], K. Yamana[2], and T. Shimidzu[1]*
[1]Division of Molecular Engineering, Graduate School of Engineering, Kyoto University, Sakyo-ku, Kyoto 606, Japan
[2]Department of Applied Chemistry, Himeji Institute of Technology, 2167 Shosha, Himeji 671-22, Japan

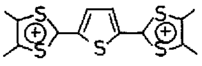


Tetrahedron Lett. 30,5903(1989

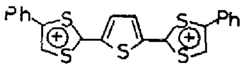
2,2'-(2,5-DIHYDROTHIOPHENE-2,5-DIYLIDENE)BIS(1,3-DITHIOLE) DERIVATIVES: NEW EXTENDED ONE-ELECTRON DONORS AND THEIR ELECTROCONDUCTIVE COMPLEXES

Kazuko Takahashi* and Takayasu Nihira
Department of Chemistry, Faculty of Science, Tohoku University, Sendai 980, Japan

Bis(1,3-dithiolium)tetrafluoroborates $\underline{2}^{2+}$ and $\underline{3}^{2+}$ have been synthesized. The electrochemical properties and conductivities of their complexes are described.



$\underline{2}^{2+}$



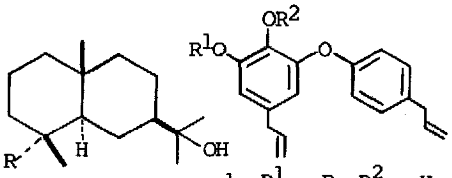
$\underline{3}^{2+}$

Tetrahedron Lett. 30,5907(1989

NOVEL NEUROTROPHIC SESQUITERPENE-NEOLIGNANS FROM MAGNOLIA OBOVATA

Yoshiyasu Fukuyama,* Yukio Otoshi, Mitsuaki Kodama,* Takashi Hasegawa, Hiroshi Okazaki, and Masakazu Nagasawa
Faculty of Pharmaceutical Sciences, Tokushima Bunri University, Tokushima 770, Japan; Otsuka Pharmaceutical Co. Ltd., Tokushima 771-01, Japan

The structures of eudesobovatol A (1) with a neurotrophic property and eudesobovatol B (2) have been assigned by spectroscopic data and chemical degradation.

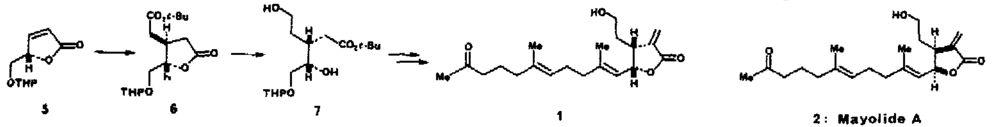


1: $R^1 = R$, $R^2 = H$
2: $R^1 = H$, $R^2 = R$

Tetrahedron Lett. 30,5911(1989

TOTAL SYNTHESIS OF (+)-MAYOLIDE A: THE ABSOLUTE CONFIGURATION OF MAYOLIDE A

Hiroto Nagaoka, Makoto Iwashima, Haruyasu Abe, and Yasuji Yamada*
Tokyo College of Pharmacy, Horinouchi, Hachioji, Tokyo 192-03, Japan



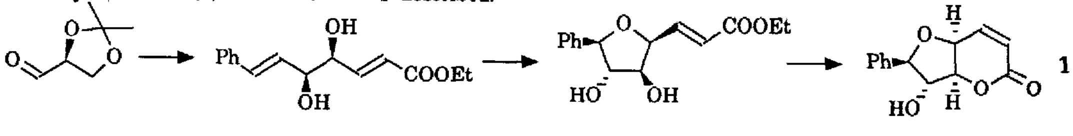
(+)-Mayolide A (1) was synthesized stereoselectively from D-mannitol via 5, 6 and 7. This accomplishment determined the absolute configuration of mayolide A as depicted in 2.

Tetrahedron Lett. 30,5915(1989

TOTAL SYNTHESIS OF (+)-ALTHOLACTONE

Sung Ho Kang*
Department of Chemistry, Korea Institute of Technology, Taejon 305-701, Korea
Wan Joo Kim
Korea Research Institute of Chemical Technology, Taejon 305-606, Korea

Total synthesis of (+)-altholactone 1 is described.

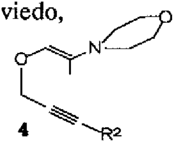


Tetrahedron Lett. 30,5919(1989

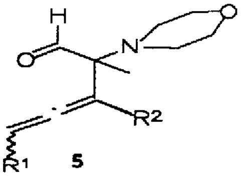
SYNTHESIS OF 2-MORPHOLINOPENTA-3,4-DIENAL DERIVATIVES AND PROPARGYLOXYENAMINES BY CATALYTIC AMINOMERCURATION OF DIPROPARGYL ETHERS.

José Barluenga*, Fernando Aznar, Miguel Bayod and José M. Alvarez.
Departamento de Química Organometálica, Universidad de Oviedo,
33071 Oviedo, Spain

Propargyloxyenamines **4.** and/or 2-morpholinopent-3,4-dienals **5** are obtained by aminomercuration of dipropargyl ethers depending on their substituents..



4



5

Tetrahedron Lett. 30,5923(1989

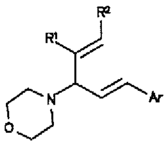
2-MORPHOLINOBUTADIENES AS SYNTHON FOR THE REGIOSELECTIVE PREPARATION OF 3-MORPHOLINO-1,4-PENTADIENES AND β-HYDROXYVINYLKETONES

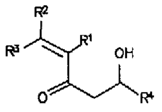
José Barluenga,* Fernando Aznar, Mª Paz Cabal and Carlos Valdés.

Departamento de Química Organometálica. Universidad de Oviedo.

33071 Oviedo. Spain

A very simple regioselective preparation of 3-morpholino-1,4-pentadienes and β-hydroxyvinylketones is described.



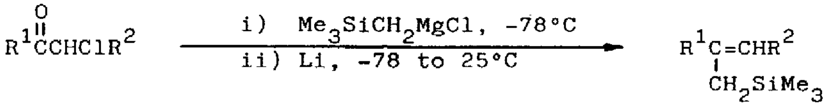


Tetrahedron Lett. 30,5927(1989

ONE-POT SYNTHESIS OF ALLYLSILANES FROM α-CHLOROCARBONYL COMPOUNDS

José Barluenga,*[a] José L. Fernández-Simón,[a] José M. Concellón,[a] and Miguel Yus[b]

[a] Departamento de Química Organometálica, Universidad de Oviedo, 33071 Oviedo, Spain
[b] División de Química Orgánica, Universidad de Alicante, 03690 Alicante, Spain

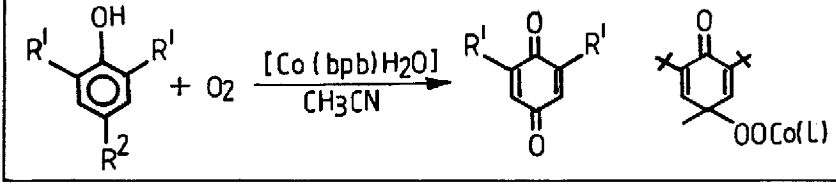


$$R^1\overset{\overset{\displaystyle O}{\|}}{C}CHClR^2 \xrightarrow[\text{ii) Li, }-78\text{ to }25°C]{\text{i) }Me_3SiCH_2MgCl,\ -78°C} R^1\underset{\underset{\displaystyle CH_2SiMe_3}{|}}{C}{=}CHR^2$$

Tetrahedron Lett. 30,5929(1989

OXIDATION OF PHENOLS WITH MOLECULAR OXYGEN CATALYSED BY [N,N'-BIS(2'-PYRIDINECARBOXAMIDO)-1,2-BENZENE] COBALT(II),CHELATE

P.A. Ganeshpure, A. Sudalai, and S.Satish
Research Centre, Indian Petrochemicals Corporation Limited,
Vadodara 391 346, India



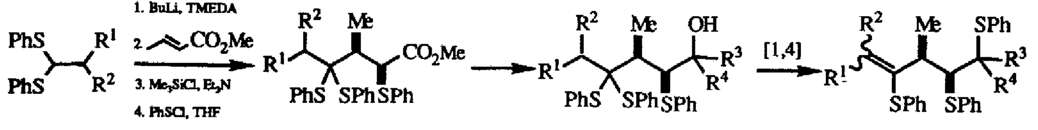
a R^1=t-Bu; R^2=H
b R^1=CH_3 ; R^2 = H
c R^1=H ; R^2=OH
d R^1=t-Bu; R^2=CH_3

Tetrahedron Lett. 30, 5933 (1989)

[1,4] PHENYLTHIO SHIFTS OF 2,4,4-TRISPHENYLTHIOBUTANOLS

María-Jesús Villa and Stuart Warren, University Chemical Laboratory, Lensfield Road, Cambridge CB2 1EW

Stereospecific [1,4] PhS shifts on alcohols (1) with [1,2] participation by a third PhS group give vinyl sulphides (2).



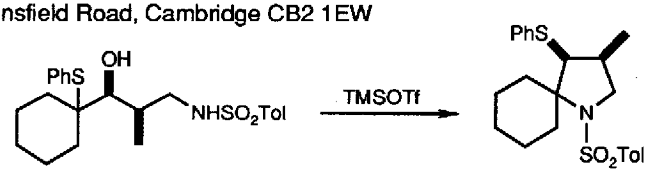
(1) E,Z-(2)

Tetrahedron Lett. 30, 5937 (1989)

STEREOCONTROLLED AMIDOCYCLISATIONS WITH PHENYLTHIO MIGRATION

I. Coldham and S. Warren
University Chemical Laboratory, Lensfield Road, Cambridge CB2 1EW

Rearrangement of β-hydroxysulphides gives cyclic and spirocyclic amines with complete stereochemical control.



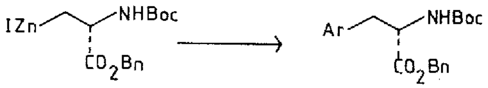
97%

Tetrahedron Lett. 30, 5941 (1989)

SYNTHESIS OF ENANTIOMERICALLY PURE PROTECTED β-ARYL ALANINES

Richard F.W. Jackson,*[a] Martin J. Wythes,[b] and Anthony Wood[a]
[a] Department of Chemistry, Bedson Building, The University, Newcastle upon Tyne, NE1 7RU, U.K.
[b] Pfizer Central Research, Sandwich, Kent, CT13 9NJ, U.K.

Reaction of the serine-derived zinc reagent (1) with aryl iodides under palladium catalysis gives enantiomerically pure protected β-aryl alanines (4).

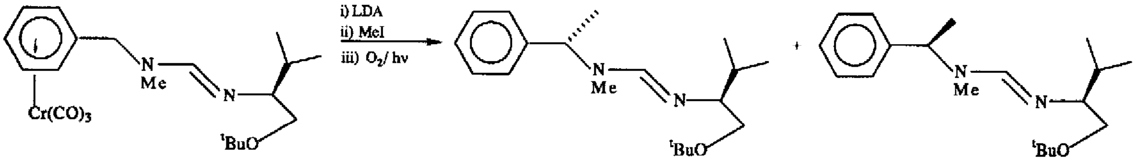


(1) (4)

Tetrahedron Lett. 30, 5945 (1989)

Stereoselective α-Methylation of N-Methyl Benzylamine *via* a Combination of Chromium Tricarbonyl and Chiral Formamidine Methodologies.

Joan Albert and Stephen G. Davies*, Dyson Perrins Laboratory, South Parks Road, Oxford, OX1 3QY, UK



Major d.e.=84% Minor

Tetrahedron Lett. 30,5949(1989)

ELECTRON ADDITION TO 5-BROMO-5-NITRO-1,3-DIOXANES

Martyn C.R. Symons[a], René Beugelmans[b],
W. Russell Bowman[c], and André Lechevalier[b]
a Department of Chemistry, The University of Leicester, Leicester LE1 7RH
b Institut de Chemie des Substances Naturelles, C.N.R.S., 91190 Gif-sur-Yvette
c Dept. of Chemistry, University of Technology, Loughborough, Leics. LE11 3TU

E.s.r. spectroscopy shows: