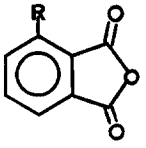
GRAPHICAL ABSTRACTS

Tet.Lett.,27,27,3079 (1986)

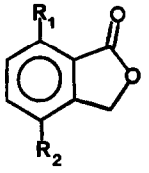
^{17}O NMR SPECTROSCOPIC STUDY OF STERIC HINDRANCE IN PHTHALIC ANHYDRIDES AND PHTHALIDES

A.L. Baumstark,* P. Balakrishnan and D.W. Boykin
Department of Chemistry and Laboratory for MBS,
Georgia State University, Atlanta, GA 30303

^{17}O NMR data for sterically hindered phthalic anhydrides (**1a-c**) and phthalides (**2a-c, 3**) are reported.



1a R=H
1b R=CH_3
1c R=$C(CH_3)_3$

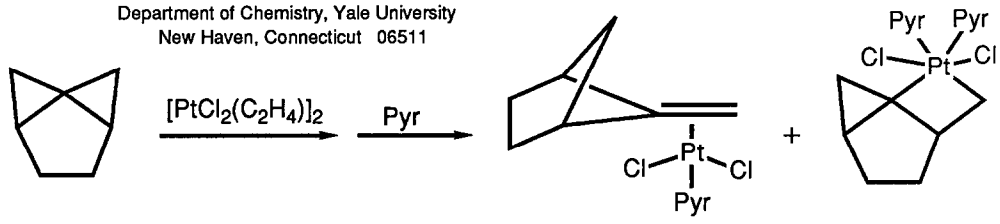


2a R_1=R_2=H
2b R_1=CH_3, R_2=H
2c R_1=$C(CH_3)_3$, R_2=H
3 R_1H, R_2=$C(CH_3)_3$

Tet.Lett.,27,27,3083 (1986)

THE REACTION OF A BRIDGED SPIROPENTANE WITH ZEISE'S DIMER

Kenneth B. Wiberg, John V. McClusky and Gayle K. Schulte
Department of Chemistry, Yale University
New Haven, Connecticut 06511

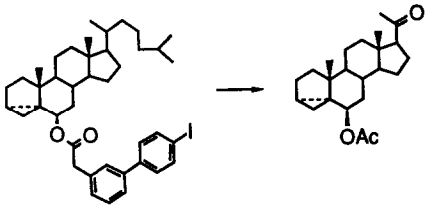


Tet.Lett.,27,27,3087 (1986)

CONVERSION OF THE CHOLESTEROL SIDECHAIN TO A 17-ACETYL GROUP BY REMOTE CHLORINATION REACTIONS

Uday Maitra and Ronald Breslow
Dept. of Chemistry, Columbia University
New York, N.Y. 10027 U.S.A.

A curved template directs chlorination to C-20.

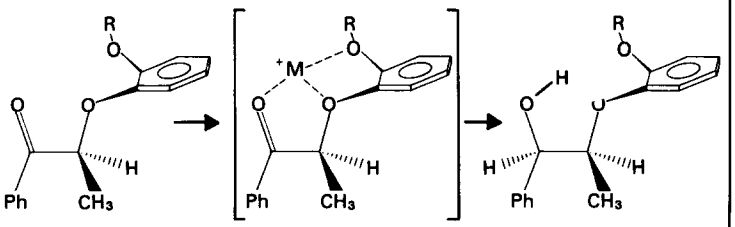


Tet.Lett.,27,27,3091 (1986)

The Influence of α-Aryl Ethers on the Asymmetric Reduction of Carbonyls

William D. Samuels, David A. Nelson*, and Richard T. Hallen
Pacific Northwest Laboratory, Richland, Washington 99352

The stereoselectivity of the metal hydride reduction was shown to be influenced by the formation of a locked bicyclic intermediate.

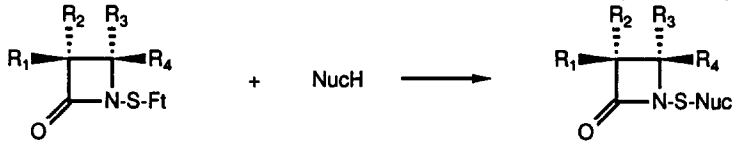


Tet.Lett.,27,27,3095 (1986)

REACTIONS OF (2-OXO-1-AZETIDINYL)-THIOPHTHALIMIDES WITH NUCLEOPHILES

Hisao Iwagami, Steven R. Woulfe, and Marvin J. Miller
Department of Chemistry, University of Notre Dame, Notre Dame, IN 46556 USA

Reactions of nucleophiles with (2-oxo-1-azetidinyl)-thiophthalimides proceeds by direct attack at the sulfur atom.

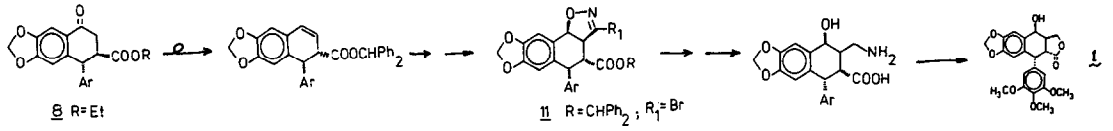


Tet.Lett.,27,27,3099 (1986)

TOTAL SYNTHESIS OF (+) EPIPODOPHYLLOTOXIN VIA A (3+2)-CYCLOADDITION STRATEGY

D.M. Vyas*, P.M. Skonezny, T.A. Jenks and T.W. Doyle,
Bristol-Myers Company, Pharmaceutical Research and Development Division; 5-Research Parkway, P.O. Box 5100, Wallingford, CT 06492

A synthesis of epipodophyllotoxin (1) via a (3+2)-cycloaddition reaction.

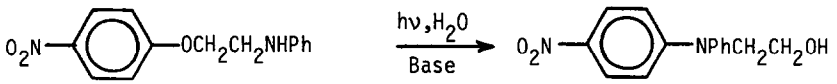


Tet.Lett.,27,27,3103 (1986)

EFFECT OF α-CYCLODEXTRIN COMPLEXATION ON A GENERAL-BASE-CATALYZED PHOTO-SMILES REARRANGEMENT.

Gene G. Wubbels*, Bradley R. Sevetson, and Steven N. Kaganove,
Department of Chemistry, Grinnell College, Grinnell, Iowa 50112

α-Cyclodextrin complexation inhibits a Smiles photorearrangement:

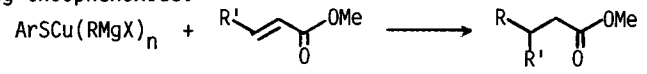


Tet.Lett.,27,27,3107 (1986)

REGIOSPECIFIC ADDITION OF ORGANOCOPPER REAGENTS TO α, β-UNSATURATED ESTERS

Mohammad Behforouz, Timothy T. Curran and Joseph L. Bolan
Department of Chemistry, Ball State University, Muncie, IN 47306

Mixed cuprates add rapidly to crotonates and cinnamates to give high yields of Michael adducts. Crotonates give much higher yields with cuprates using 2-methoxythiophenoxide as a ligand than with those using thiophenoxide.



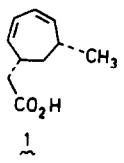
R = Me, Et, i-Pr, t-Bu, Ph, Vinyl; R' = Me, Ph; Ar = Ph, o-$MeOC_6H_4$

STEREOCONTROLLED FUNCTIONALIZATION OF CYCLOHEPTADIENE: AN APPROACH TO TYLOSIN AND CARBOMYCIN B FROM A COMMON INTERMEDIATE

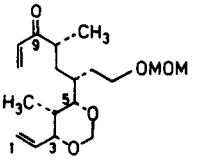
Tet.Lett.,27,27,3111 (1986)

Anthony J. Pearson* and Tapan Ray, Department of Chemistry
Case Western Reserve University, Cleveland, Ohio 44106, U.S.A.

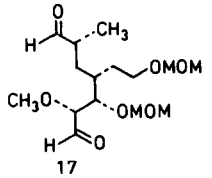
Conversion of the cycloheptadiene derivative 1 to the acyclic molecules 11 and 17, which represent right-hand subunits of the macrolide antibiotics tylosin and carbomycin B, is described.



1



11

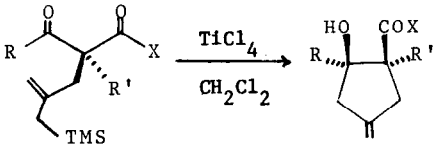


17

Tet.Lett.,27,27,3115 (1986)

CHELATION-CONTROLLED CYCLIZATION OF β-KETOESTER-SUBSTITUTED AND β-KETOAMIDE-SUBSTITUTED ALLYLSILANES

Gary A. Molander* and Steven W. Andrews
Department of Chemistry and Biochemistry, Univ. of Colorado, Boulder, CO 80309-0215 USA



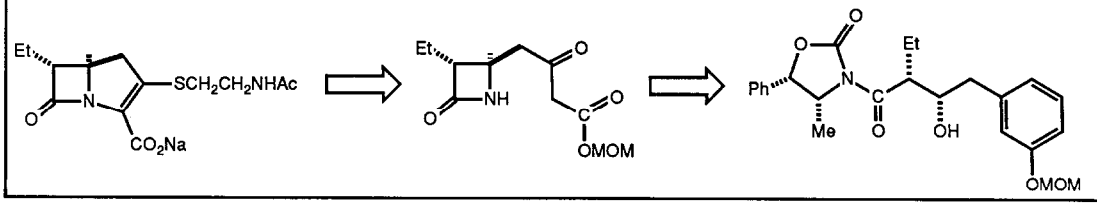
X= -OR", -NR"2

Tet.Lett.,27,27,3119 (1986)

THE ASYMMETRIC SYNTHESIS OF β-LACTAM ANTIBIOTICS-III. THE ENANTIOSELECTIVE SYNTHESIS OF (+) PS-5.

David A. Evans and Eric B. Sjogren
Department of Chemistry, Harvard University, Cambridge, Mass. 02138 USA

An asymmetric synthesis of the carbapenem antibiotic PS-5 has been achieved. The pivotal bond construction which establishes the required stereochemical relationships is an enantioselective aldol addition reaction.

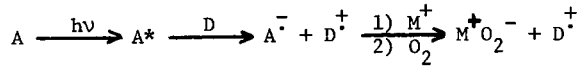


Tet.Lett.,27,27,3123 (1986)

SALT EFFECTS IN PHOTOINDUCED ELECTRON TRANSFER REACTIONS

Barbara Goodson and Gary B. Schuster*
Department of Chemistry, University of Illinois, Urbana, IL 61801-3731 USA

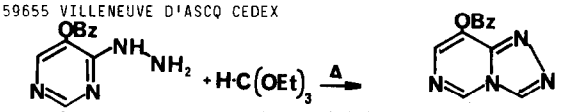
Metal salts and oxygen react synergistically to inhibit back-electron-transfer in photo-induced reactions.



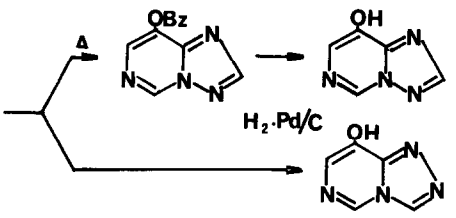
Tet.Lett.,27,27,3127 (1986)

SYNTHESE OF NEW HETEROCYCLIC PHENOLS : 8-HYDROXY-s-TRIAZOLO [1,5-c] AND [4,3-c] PYRIMIDINES

O. ROUSSEAUX, D. BLONDEAU, H. SLIWA*
Laboratoire de Chimie Organique - U.S.T.L. Flandres Artois - 59655 VILLENEUVE D'ASCQ CEDEX



Extension to 5-MeO 4-hydrazino-pyrimidines and orthoacetate is also described.



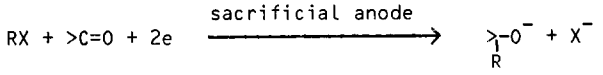
Tet.Lett.,27,27,3129 (1986)

ELECTROSYNTHESIS OF ALCOHOLS FROM ORGANIC HALIDES AND KETONES OR ALDEHYDES.

Soline SIBILLE, Esther d'INCAN, Louis LEPORT and Jacques PERICHON.

Laboratoire d'Electrochimie, Catalyse et Synthèse Organique, UM C.N.R.S. n° 28, C.N.R.S., 2, rue Henri-Dunant 94320 THIAIS (France)

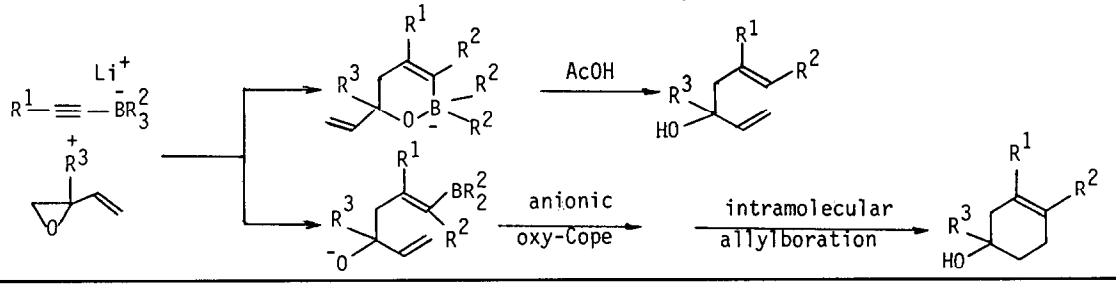
Electrosynthesis of alcohols from organic halides and carbonyl compounds using sacrificial anodes of Al, Mg, Zn, Fe.



Tet.Lett.,27,27,3133 (1986)

STEREOCHEMISTRY OF THE OPENING OF ALLYLIC EPOXIDES BY ALKYNYL BORATES

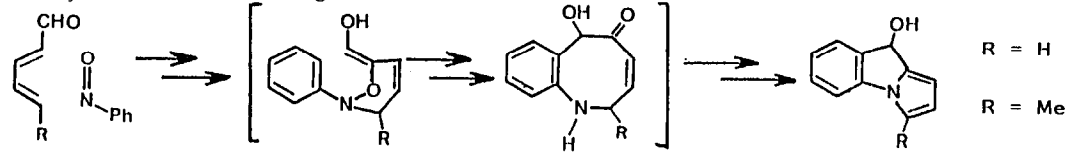
J.M.MAS, J.GORE, M.MALACRIA, Université Claude Bernard, Lyon, France.



Tet.Lett.,27,27,3135 (1986)

A SIMPLE ONE-POT SYNTHESIS OF THE MITOMYCIN SKELETON

Albert DEFOIN, Hans FRITZ, Guillaume GEFFROY and Jacques STREITH
Ecole Nationale Supérieure de Chimie Université de Haute-Alsace F-68093 Mulhouse-Cédex and Physikalische Abteilung CIBA-GEIGY CH-4002 Basel.



Tet.Lett.,27,27,3139 (1986)

CHROMIUM^{VI} COMPLEX CATALYZED BENZYLIC OXIDATIONS IN THE PRESENCE OF TERT.BUTYL HYDROPEROXIDE

Jacques Muzart
Laboratoire de Photochimie, Unité Associée au CNRS n° 459, Université de Reims Champagne-Ardenne, 51062 Reims Cédex

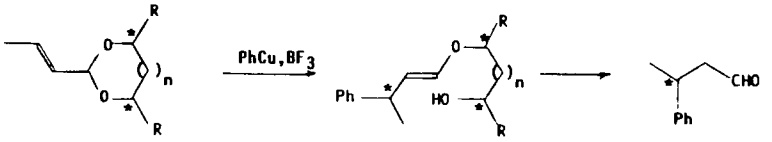
In using t.BuOOH and a small quantity of 1, benzylic methylene groups are oxidised into carbonyl functions ; t.butylperoxy compounds are postulated as intermediates.

Tet.Lett.,27,27,3143 (1986)

DIASTEREOSELECTIVE CONJUGATE ADDITION TO CHIRAL α,β ETHYLENIC ACETALS

P. Mangeney*, A. Alexakis, J.F. Normant
Laboratoire de Chimie des Organo-éléments, tour 44, 4 place Jussieu F-75252 PARIS Cédex 05

$PhCu,BF_3$ reacts regio and stereoselectively with chiral α,β ethylenic acetals.

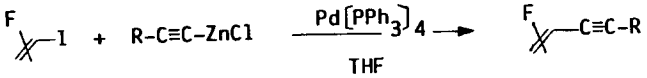


Tet.Lett.,27,27,3147 (1986)

PREPARATION ET REACTIVITE DE QUELQUES ENYNES FLUORES

Frédérique TELLIER, Raymond SAUVÊTRE*, Jean-F. NORMANT
Laboratoire de Chimie des Organo-éléments, tour 44
Université P. et M. Curie, 4 place Jussieu F-75252 PARIS Cédex 05

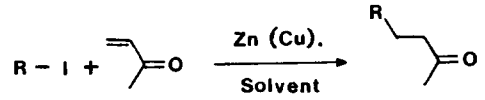
Several fluoroenynes have been prepared by palladium-catalysed cross coupling reactions.



Tet.Lett.,27,27,3149 (1986)

CONJUGATE ADDITIONS TO α,β -UNSATURATED CARBONYL COMPOUNDS IN AQUEOUS MEDIA

C. Petrier, C. Dupuy, J.L. Luche
Ledss, Université Scientifique et Médicale de Grenoble
B.P. 68 38402 St. Martin d'Hères Cedex FRANCE



Solvents : THF : H_2O(4:1) ; Pyridine : H_2O(1:4) ; EtOH : H_2O(9:1).

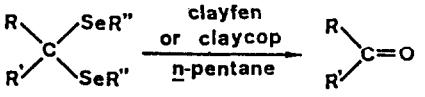
Reactivity of R-I : $1^{ary} < 2^{ary} < 3^{ary}$.

R can be functionnal - Yields : 42-100 %

Tet.Lett.,27,27,3153 (1986)

CLEAVAGE OF SELENOACETALS BY CLAY-SUPPORTED METAL NITRATES

Pierre Laszlo* and Pascal Pennetreau
Institut de Chimie Organique, Université de Liège
au Sart-Tilman, B-4000 Liège 1, Belgium.
Alain Krief
Facultés Universitaires Notre-Dame de la Paix
Département de Chimie, 61 rue de Bruxelles B-Namur, Belgium.



R"= - C_6H_5: Yields from 78% to 90% (three examples)

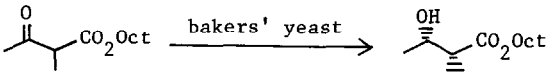
R"= - CH_3: Yields near 60% (three examples)

Tet.Lett.,27,27,3155 (1986)

DIASTEREO- AND ENANTIO-SELECTIVE REDUCTION OF 2-METHYL-3-OXOBUTANOATE BY BAKERS' YEAST

Kaoru NAKAMURA, Takehiko MIYAI, Kenji NOZAKI, Kazutoshi USHIO, Shinzaburo OKA, and Atsuyoshi OHNO*
Institute for Chemical Research, Kyoto University, Uji, Kyoto 611, Japan

A diastereo- and enantio-selective synthesis of (2*R*,3*S*)-*syn*-3-hydroxy-2-methylbutanoate.

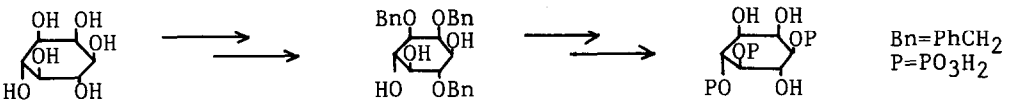


Tet.Lett.,27,27,3157 (1986)

TOTAL SYNTHESIS OF OPTICALLY ACTIVE MYO-INOSITOL 1,4,5-TRIS(PHOSPHATE)

Shoichiro Ozaki*, Yutaka Watanabe, Tomio Ogasawara, Yoshihisa Kondo, Naokazu Shiotani, Hisayoshi Nishii, and Tomoko Matsuki
Department of Resources Chemistry, Faculty of Engineering, Ehime University, Matsuyama 790, Japan

A synthesis of D-myo-inositol 1,4,5-tris(phosphate) which involves optical resolution using l-menthoxyacetic acid as a chiral source.



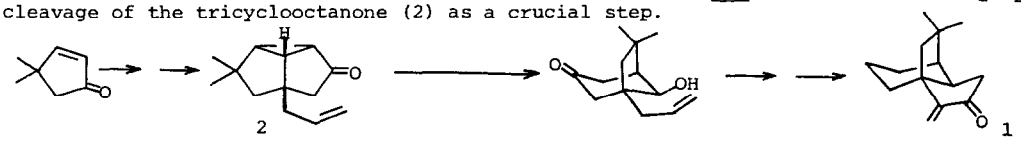
Bn=$PhCH_2$
P=PO_3H_2

Tet.Lett.,27,27,3161 (1986)

A NOVEL CONSTRUCTION OF OCTAHYDRO-3a,7-ETHANO-3aH-INDENE SKELETON FROM A TRICYCLO[3.3.0.$0^{2,8}$]OCTANE: A TOTAL SYNTHESIS OF (±)-DESCARBOXYQUADRONE

Takeshi Imanishi, Munetaka Matsui, Masayuki Yamashita, and Chuzo Iwata*
Faculty of Pharmaceutical Sciences, Osaka University, Yamadaoka, Suita, Osaka 565, Japan

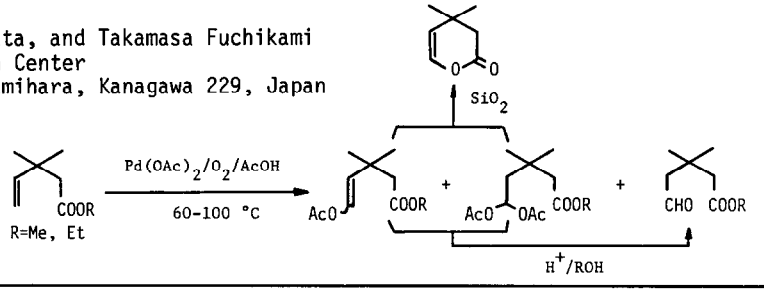
Total Synthesis of (±)-descarboxyquadrone (1) was achieved via a regioselective C_1-C_2 bond cleavage of the tricyclooctanone (2) as a crucial step.



FACILE SYNTHESIS OF 3,4-DIHYDRO-4,4-DIMETHYL-2H-PYRAN-2-ONE VIA PALLADIUM CATALYZED TERMINAL OXIDATION OF 3,3-DIMETHYL-4-PENTENOATES

Tet.Lett.,27,27,3165 (1986)

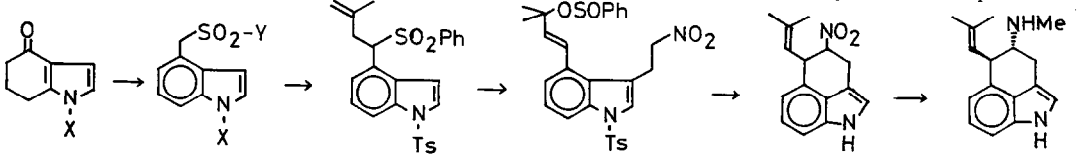
Mariko Tanaka, Hisao Urata, and Takamasa Fuchikami
Sagami Chemical Research Center
Nishi-Ohnuma 4-4-1, Sagamihara, Kanagawa 229, Japan



Tet.Lett.,27,27,3169 (1986)

A FACILE SYNTHESIS OF 4-(SULFONYLMETHYL)INDOLES FROM 4-OXO-4,5,6,7-TETRAHYDROINDOLE: FORMAL TOTAL SYNTHESIS OF 6,7-SECOAGROCLAVINE

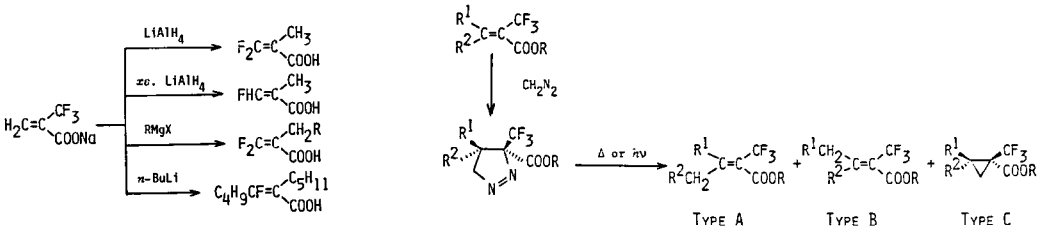
Naoto Hatanaka, Osamu Ozaki, and Masakatsu Matsumoto*
Sagami Chemical Research Center, Nishi-Ohnuma 4-4-1, Sagamihara, Kanagawa 229, Japan



FACILE SYNTHESES OF FLUORINE-CONTAINING α,β-UNSATURATED ACIDS AND ESTERS FROM 2-TRIFLUOROMETHYLACRYLIC ACID

Tet.Lett.,27,27,3173 (1986)

Takamasa Fuchikami, Yoshiko Shibata, and Yasuyuki Suzuki
Sagami Chemical Research Center, Nishi-Ohnuma 4-4-1, Sagamihara, Kanagawa 229, Japan

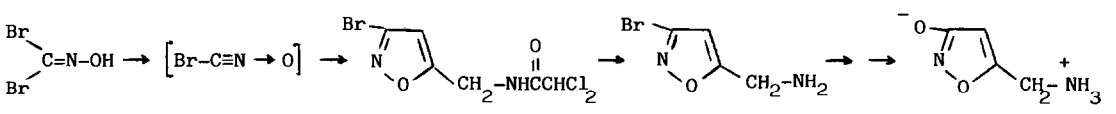


A CONVENIENT SYNTHESIS OF MUSCIMOL BY A 1,3-DIPOLAR CYCLOADDITION REACTION

Tet.Lett.,27,27,3181 (1986)

D. Chiarino, M. Napoletano and A. Sala*
Zambon Farmaceutici Research Laboratories Bresso-Milan Italy

A simple and large scale synthesis of muscimol starting from dibromoformaldoxime.

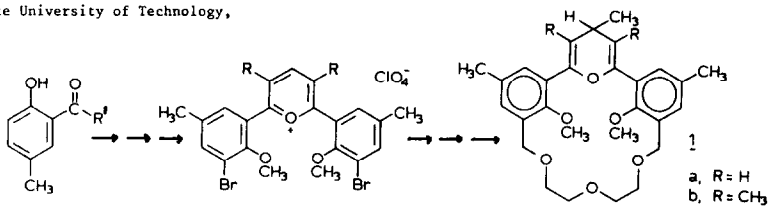


Tet.Lett.,27,27,3183 (1986)

THE SYNTHESIS OF 4H-PYRAN CONTAINING HEMISPHERANDS VIA PYRYLIUM SALTS

P.J. Dijkstra, B.J. van Steen, B.H.M. Hams, H.J. den Hertog Jr., D.N. Reinhoudt
Laboratory of Organic Chemistry, Twente University of Technology,
7500 AE Enschede, The Netherlands

Synthesis of 4H-pyran hemispherands 1a and 1b via pyrylium salts. ΔG^0 values for complexes with alkali picrates.

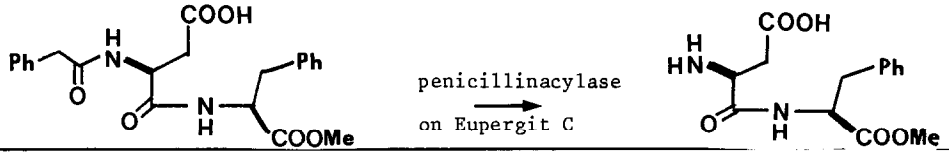


IMMOBILIZED PENICILLINACYLASE: APPLICATION TO THE SYNTHESIS OF THE DIPEPTIDE ASPARTAME

Tet.Lett.,27,27,3191 (1986)

C.Fuganti, P.Grasselli and P.Casati

Dipartimento di Chimica del Politecnico, 20133 Milano, Italy, and Sclavo, Divisione Biochimica DE.BI., Cassina de' Pecchi, Italy

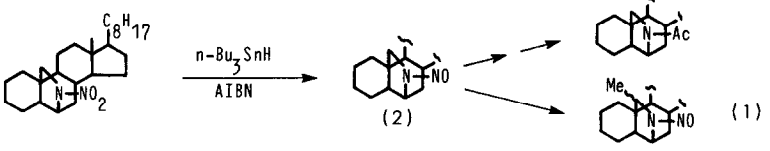


REDUCTION OF ALIPHATIC NITRAMINES. APPROACH TO THE SYNTHESIS OF NITROSAMINES AND AMINES

Tet.Lett.,27,27,3195 (1986)

P. de Armas, C.G. Francisco,* R. Hernández, and E. Suárez
Instituto de Productos Naturales Orgánicos, C.S.I.C.; C. La Esperanza 2, Tenerife, Spain.

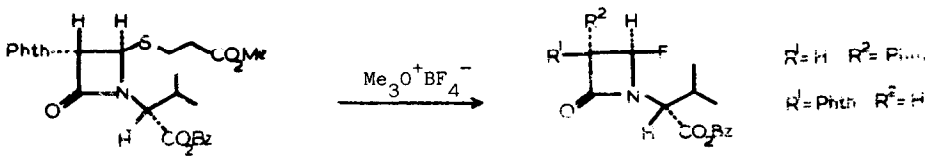
Reaction of several nitroamines with n-Bu_3SnH/AIBN led to nitrosamines. Further treatment with same reagent transformed nitrosamines into amines. The 19-methyl steroid (1) was obtained by alkylation of the nitrosamine (2).



4-FLUOROAZETIDINONE DERIVATIVES FROM SECONPENICILLANATE SULPHONIUM TETRAFLUOROBORATES

Tet.Lett.,27,27,3199 (1986)

John Brennan*, Faiq H. S. Hussain and Pedro Virgili
Department of Chemistry, UMIST, Manchester, M60 1QD, U.K.

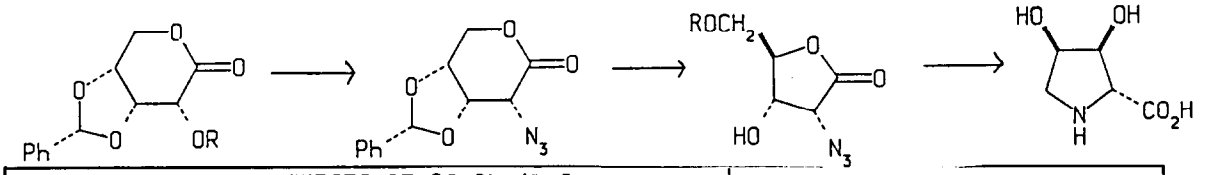


SYNTHESIS OF 2R,3S,4R-DIHYDROXYPROLINE FROM D-RIBONOLACTONE

Tet.Lett.,27,27,3203 (1986)

J.C.Dho,[b] G.W.J.Fleet,[a] J.M. Peach,[a] K. Prout[b] and P.W.Smith[a]
[a]Dyson Perrins Laboratory, Oxford University, South Parks Road, Oxford OX1 3QY, UK
[b]Chemical Crystallography Laboratory, 9, Parks Road, Oxford OX1 3PD, UK

A synthesis of 2R,3S,4R-dihydroxyproline is described in which an azide is introduced into C-2 positon of D-ribonolactone with retention of configuration.

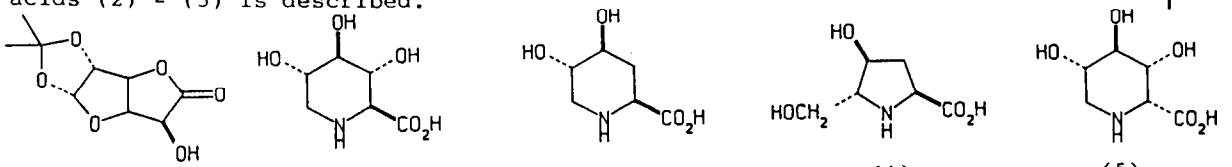


ENANTIOSPECIFIC SYNTHESES OF 2S,3R,4R,5S-TRIHYDROXYPIPECOLIC ACID, 2R,3R,4R,5S-TRIHYDROXY PIPECOLIC ACID, 2S,4S,5S-DIHYDROXYPIPECOLIC ACID, AND BULGECININE FROM D-GLUCURONOLACTONE

Tet.Lett.,27,27,3205 (1986)

B. P. Bashyal, H.-F. Chow and G. W. J. Fleet
Dyson Perrins Laboratory, Oxford University, South Parks Road, Oxford, OX1 3QY, UK

The conversion of protected D-glucuronolactone (1) to the polyfunctional amino acids (2) - (5) is described.



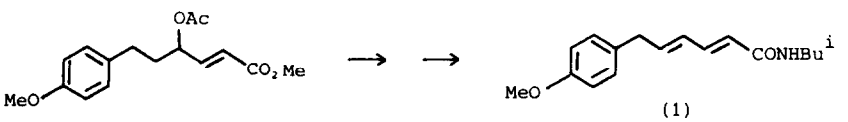
(1) (2) (3) (4) (5)

A NOVEL APPLICATION OF MOLYBDENUM MEDIATED DIENE SYNTHESIS IN THE PREPARATION OF PIPEROVATINE

Tet.Lett.,27,27,3209 (1986)

Robert J Blade* and J Edward Robinson
Wellcome Research Laboratories, Ravens Lane, Berkhamsted, Herts, HP4 2DY, England.

A new regio- and stereoselective route to the naturally occurring dienamide piperovatine (1) via molybdenum hexacarbonyl mediated 2,4-dienoate synthesis.



(1)