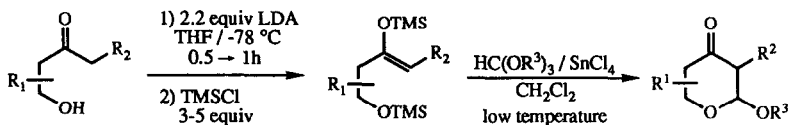


GRAPHICAL ABSTRACTS

CHEMISTRY OF ALDOLATE DIANIONS. β -SILYLOXY SILYL ENOL ETHERS AS BIFUNCTIONAL NUCLEOPHILIC EQUIVALENTS FOR OXYGEN HETEROCYCLE SYNTHESIS

Tetrahedron Lett. 1990, 31, 301

Van A. Martin, Françoise Perron and Kim F. Albizati*
Department of Chemistry, Wayne State University, Detroit, Michigan 48202

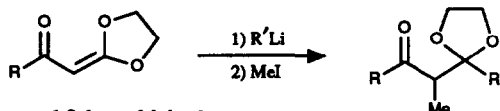


CONJUGATE HYDROBORATION-REDUCTION AND ORGANOLITHIUM ADDITIONS TO ACYLKETENE ACETALS. SYNTHESIS OF MONOPROTECTED β -DICARBONYLS

Tetrahedron Lett. 1990, 31, 305

Clark N. Eid, Jr. and Joseph P. Konopelski*
Department of Chemistry, University of California, Santa Cruz, CA 95064

Hydride and organolithium additions to acylketene acetals are presented. Results indicate conjugate addition to be the dominant reaction pathway, resulting in the formation of monoprotected β -diketones and β -ketoaldehydes

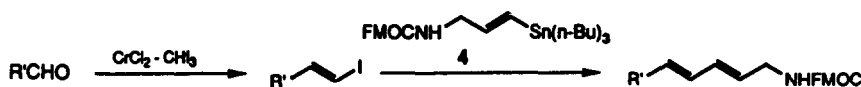


A MILD FOUR-CARBON HOMOLOGATION OF ALDEHYDES TO E,E-DIENAMINES

Tetrahedron Lett. 1990, 31, 307

Andrew S. Kende* and Robert J. DeVita
Department of Chemistry, University of Rochester, Rochester, New York 14627

The four-carbon homologation of aldehydes to E,E-dienamines can be achieved efficiently under mild conditions by iodomethylation with $\text{CrCl}_2\text{-CH}_3$, with subsequent Pd-catalyzed coupling to the vinylstannane **4** followed by mild cleavage of the Fmoc group.

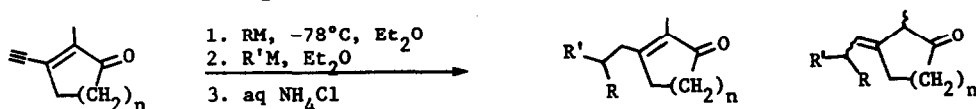


TANDEM GEMINAL DIALKYLATION: NUCLEOPHILIC DOUBLE ADDITION OF ORGANOCOPPER REAGENTS TO 3-ETHYNYL-2-CYCLOALKENONES

Tetrahedron Lett. 1990, 31, 311

Sang-Ho Lee and Martín Hulce*
Department of Chemistry and Biochemistry, University of Maryland Baltimore County, Baltimore, MD 21228

Tandem 1,6-5,6 addition of R_2CuLi to the title compounds gives geminally dialkylated enones.

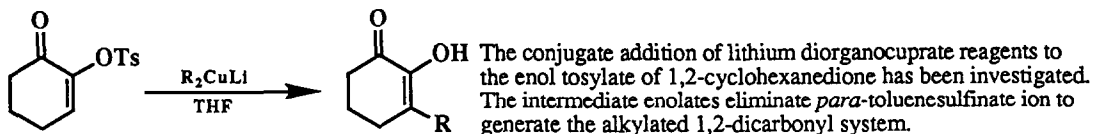


CONJUGATE ADDITION OF LITHIUM DIORGANOCUPRATE REAGENTS TO THE ENOL TOSYLATE OF A 1,2-DIKETONE

Tetrahedron Lett. 1990, 31, 315

Jeffrey A. Charonnat*, Anna L. Mitchell and Bartholomew P. Keogh

Department of Chemistry, Swarthmore College, 500 College Avenue, Swarthmore, PA 19081-1397



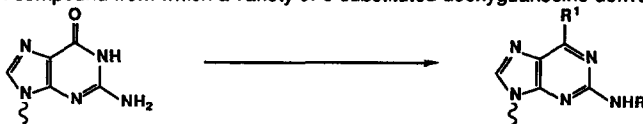
SYNTHESIS OF 6-SUBSTITUTED 2'-DEOXYGUANOSINE DERIVATIVES USING TRIFLUOROACETIC ANHYDRIDE IN PYRIDINE

Tetrahedron Lett. 1990, 31, 319

Reza Fathi, Bhaswati Goswami, Pei-Pei Kung, Barbara L. Gaffney, and Roger A. Jones*

Department of Chemistry, Rutgers, The State University of New Jersey, Piscataway, NJ 08855

Trifluoroacetic anhydride at 0° C reacts with a pyridine suspension of deoxyguanosine to generate a putative 6-pyridyl compound from which a variety of 6-substituted deoxyguanosine derivatives can be obtained.

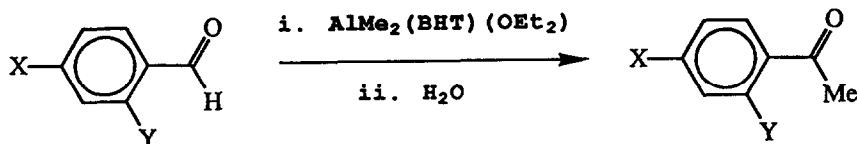


ORGANOALUMINUM PROMOTED CONVERSION OF ALDEHYDES TO METHYL KETONES

Tetrahedron Lett. 1990, 31, 323

Michael B. Power and Andrew R. Barron*

Department of Chemistry, Harvard University, Cambridge, MA 02138 USA

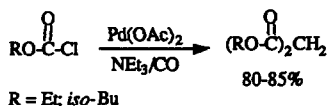


AN UNUSUAL SYNTHESIS OF MALONATES

Tetrahedron Lett. 1990, 31, 325

Derek H.R. Barton, Pascal Langlois, Takashi Okano and Nubar Ozbalik

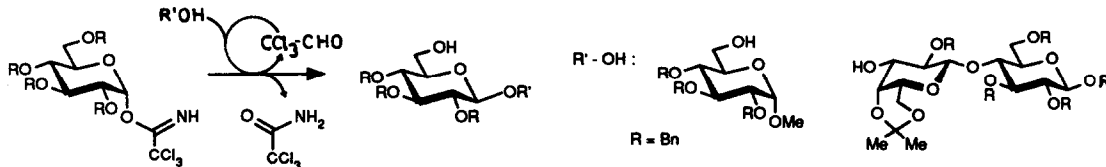
Department of Chemistry, Texas A&M University, College Station, TX 77843



By ^{13}C labelling the malonate CH_2 comes from the methyl of Pd(OAc)_2 .

NEW CATALYSTS FOR THE GLYCOSYL TRANSFER WITH O - GLYCOSYL TRICHLOROACETIMIDATES

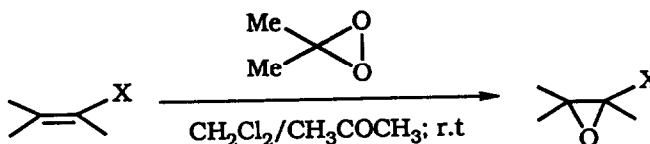
Richard R. Schmidt, Helmut Gaden, and Harald Jatzke
Fakultät Chemie, Universität Konstanz, D-7750 Konstanz, Germany



DIMETHYLDIOXIRANE EPOXIDATION OF α,β -UNSATURATED KETONES, ACIDS AND ESTERS.

Waldemar Adam*, Lazaros Hadjirapoglou, Bernd Nestler
Institute of Organic Chemistry, University of Würzburg, Am Hubland, 8700 Würzburg,
Federal Republic of Germany.

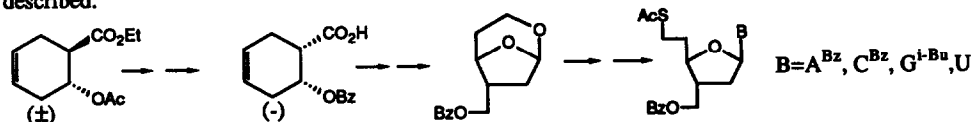
The corresponding epoxides were isolated in excellent yields via oxygen transfer by dimethyldioxirane (as acetone solution).



BUILDING BLOCKS FOR OLIGONUCLEOTIDE ANALOGS WITH DIMETHYLENE-SULFIDE, -SULFOXIDE, AND SULFONE GROUPS REPLACING PHOSPHODIESTER LINKAGES

K. Christian Schneider and Steven A. Benner*
Laboratory for Organic Chemistry, E.T.H. Zürich, CH-8092 Switzerland

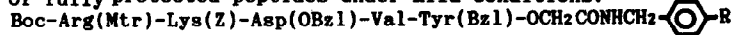
Syntheses of the four building blocks, necessary for the construction of sulfur linked oligonucleotides, are described.



CARBOXANIDOMETHYL ESTER AS USEFUL HANDLE IN POLYSTYRENE-BASED PEPTIDE SYNTHESIS: CLEAVAGE OF PEPTIDE WITH MERCAPTIDE

Mohammed Saleh Shekhani,^a Gerald Grübler,^b Hartmut Echner,^b and Wolfgang Voelter.^{a,b}
(a) HEJ Research Institute of Chemistry, University of Karachi, Karachi-32, Pakistan.
(b) Abteilung für Physikalische Biochemie des Physiologisch-chemischen Instituts der Univ. Tübingen, Hoppe-Seyler-Str. 4, D-7400 Tübingen, FRG.

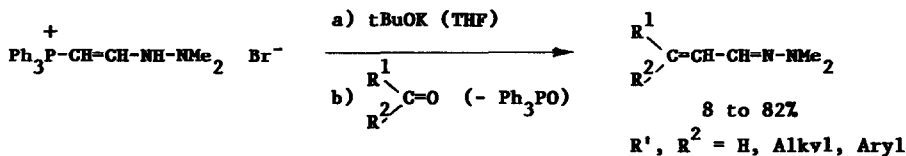
Glycolamidic ester on a polystyrene resin, a mercaptide-cleavable handle, permits syntheses of fully protected peptides under mild conditions.



NEW FUNCTIONAL WITTIG REAGENT FOR THE
FORMYLOLEFINATION OF ALDEHYDES AND KETONES.

H.J. CRISTAU*, M.B. GASC.

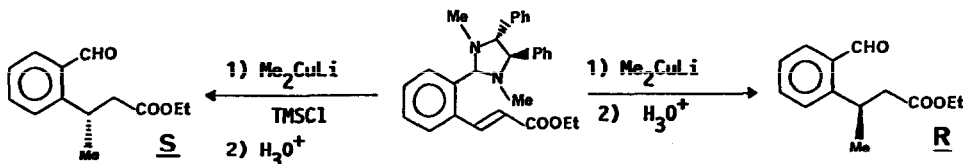
Laboratoire de Chimie Organique URA n° 458, ENSCM 8 rue de l'École Normale, 34075 MONTPELLIER



STEREOCHEMICAL EFFECTS OF TRIMETHYLSILYL CHLORIDE (TMSCl)
ON THE CONJUGATE ADDITION OF ORGANOCOPPER REAGENTS

A. Alexakis*, R. Sedrani, P. Mangeney

Laboratoire de Chimie des Organomélements, Université P. et M. Curie, CNRS U.A. 473
Tour 44-45, 4 Place Jussieu - F 75252 Paris Cedex 05.

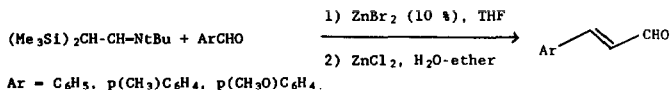


PREPARATION OF (E)- α,β -UNSATURATED AROMATIC
ALDEHYDES BY HIGH STEREOSELECTIVE OLEFINFORMYLATION.

Marcel GAUDEMAR and Moncef BELLASSOUED

Université P. et M. Curie (PARIS VI), Laboratoire de Synthèse Organométallique, 4, Place
Jussieu, 75230 - PARIS Cedex 05 (France).

α,β -unsaturated aromatic aldehydes are prepared in good yields and with very high
stereoselectivity in favour of the E isomer using α,α -bis(trimethylsilyl)
ter-butylacetalimine.



ON THE OXIDATION OF 3-ETHYLPENTANE UNDER
GIF^{IV} AND GIF-ORSAY CONDITIONS

Derek H.R. Barton, Dario Doller and Nubar Ozbalik

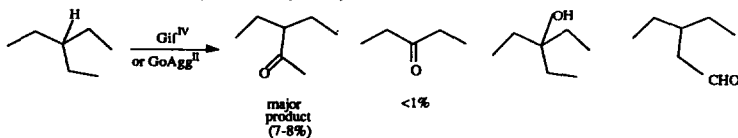
Department of Chemistry, Texas A&M University, College Station, TX 77843, U.S.A.

Gilbert Balavoine and Aurore Gref

Institut de Chimie Moléculaire d'Orsay, L.A. 225 C.N.R.S., Université de Paris-Sud, 91405 Orsay, France

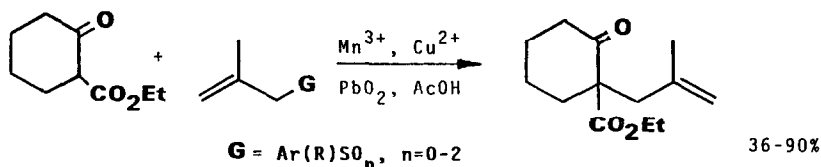
and Jean Boivin

Laboratoire de Synthèse Organique, Ecole Polytechnique, 91128 Palaiseau, France



FREE RADICAL TROST ALLYLATION

P. Breuilles and D. Uguen*
 Laboratoire de chimie
 Ecole Normale Supérieure, 24 rue Lhomond
 75231 PARIS Cedex, France.



SYNTHESIS OF NEW 5 AND 6-EXOMETHYLENIC ARACHIDONIC ACID ANALOGS.

A. Stoller^a, C. Mioskowski^{a*}, C. Sepulchre^b, F. Bellamy^{b*}

^aUniversité Louis Pasteur,
 Faculté de Pharmacie, Strasbourg

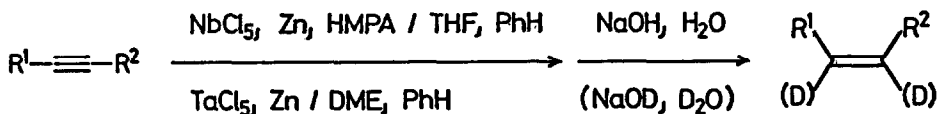
^bLaboratoires Fournier,
 Fontaine les Dijon



The synthesis of two new analogs of arachidonic acid bearing a 5 or a 6-exomethylene function are reported.

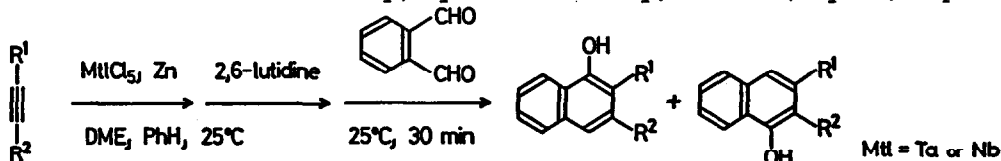
REDUCTION OF ACETYLENES TO (Z)-OLEFINS BY MEANS OF LOW-VALENT NIOBIUM OR TANTALUM.

Yasutaka Kataoka, Kazuhiko Takai,* Koichiro Oshima,* and Kiitiro Utimoto*
 Department of Industrial Chemistry, Kyoto University, Yoshida, Kyoto, Japan



PREPARATION OF 1-NAPHTHOLS FROM ACETYLENES AND o-PHTHALALDEHYDE USING LOW-VALENT TANTALUM AND NIOBIUM.

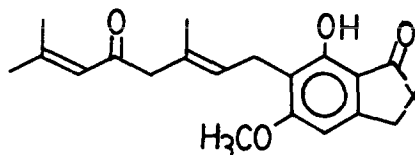
Yasutaka Kataoka, Jiro Miyai, Makoto Tezuka, Kazuhiko Takai,* Koichiro Oshima,* and Kiitiro Utimoto
 Department of Industrial Chemistry, Kyoto University, Yoshida, Kyoto, Japan



Tetrahedron Lett. 1990, 31, 373

HERICENONE A AND B AS CYTOTOXIC PRINCIPLES FROM THE MUSHROOM *HERICIUM ERINACEUM*
Hirokazu Kawagishi*, Motoharu Ando and Takashi Mizuno
Department of Applied Biological Chemistry,
Faculty of Agriculture
Shizuoka University
Shizuoka 422, Japan

Two novel cytotoxic phenols, hericenone A and B were isolated from the mushroom *Hericium erinaceum*. The structures were established by interpretation of spectral data and chemical analyses.

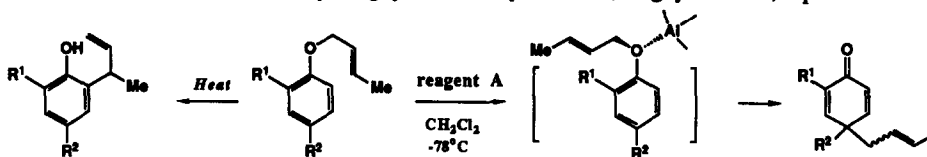


Hericenone A (X=O) and B (X=NCH₂CH₂Ph)

Tetrahedron Lett. 1990, 31, 377

ORGANOALUMINUM-PROMOTED REARRANGEMENT OF ALLYL PHENYL ETHERS

Keiji Maruoka, Junko Sato, Hiroshi Banno, and Hisashi Yamamoto*
Department of Applied Chemistry, Nagoya University, Chikusa, Nagoya 464-01, Japan

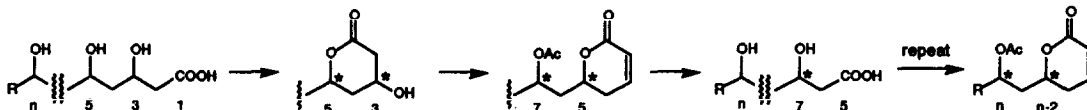


reagent A : methylaluminum bis(4-bromo-2,6-di-*tert*-butylphenoxide)

Tetrahedron Lett. 1990, 31, 381

A GENERAL AND EFFICIENT STRATEGY FOR DETERMINING THE STEREOSTRUCTURE OF 1,3-POLYOL

Tadashi Nakata, Noriaki Hata, and Takeshi Oishi
RIKEN, Wako-shi, Saitama 351-01, Japan

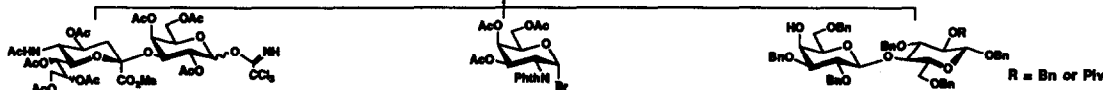


Tetrahedron Lett. 1990, 31; 385

A STEREOCONTROLLED TOTAL SYNTHESIS OF A GANGLIO-GANGLIOSIDE

GM1b, IV^aNeuAc₅GgOse₄Cer
Mamoru Sugimoto^{a)}, Kazushige Fujikura^{a)}, Shigeki Nunomura^{b)},
Toshio Horisaki^{b)}, Yukihige Ito^{b)}, and Tomoya Ogawa^{b)}
a) Central Research Institute, MECT Co., 1780, Kitano, Tokorozawa-shi, Saitama 359 Japan, b) RIKEN (The Institute of Physical and Chemical Research), Wako-shi, Saitama, 351-01 Japan

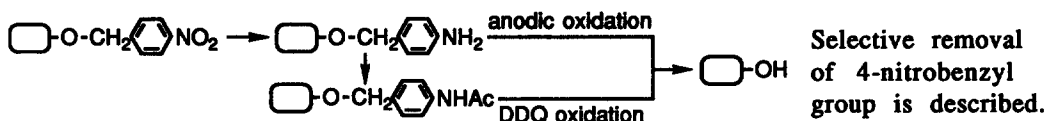
A first total synthesis of GM1b was achieved.



4-NITROBENZYL GROUP FOR PROTECTION OF HYDROXYL FUNCTIONS

Tetrahedron Lett. 1990, 31, 389

Koichi Fukase,^a Hideo Tanaka,^b Sigeru Torii,^b and Shoichi Kusumoto,^{a*} ^aDepartment of Chemistry, Faculty of Science, Osaka University, Toyonaka, Osaka 560, Japan, ^bDepartment of Applied Chemistry, Faculty of Engineering, Okayama University, Okayama 700, Japan



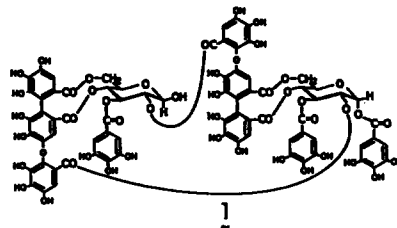
WOODFRUTICOSIN, AN INHIBITOR OF DNA TOPOISOMERASE II FROM WOODFORDIA FRUTICOSA KURZ

Tetrahedron Lett. 1990, 31, 393

Shigetoshi Kadota,^a Yasushi Takamori,^a Tohru Kikuchi,^a Akiko Motegi,^b and Hisao Ekimoto^b

Research Institute for Wakan-Yaku (Oriental Medicines), Toyama Medical and Pharmaceutical University,^a 2630 Sugitani, Toyama 930-01, Japan and Research Laboratories, Nippon Kayaku Co., Ltd.,^b 31-12 Shimo 3-chome, Kita-ku, Tokyo 115, Japan.

The structure of woodfruticosin (1), isolated as inhibitor of DNA topoisomerase II from the methanol extract of *Woodfordia fruticosa* KURZ, was determined based on the 2-D NMR spectroscopy.



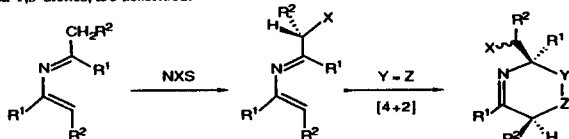
UNACTIVATED 2-AZA-1,3-DIENES: HALOGENATION AND FACE SELECTIVITY IN DIELS-ALDER REACTIONS

Tetrahedron Lett. 1990, 31, 397

José Barluenga,* Francisco J. González, and Santos Fustero

Departamento de Química Orgánica, Facultad de Química, Universidad de Oviedo, 33071-Oviedo, Spain

The synthesis and face selectivity shown in Diels-Alder reactions of monohalogenated 2-aza-1,3-dienes, obtained from unactivated 2-aza-1,3-dienes, are described.



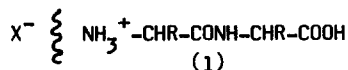
THE USE OF CROWN ETHERS IN PEPTIDE CHEMISTRY: PART 3 SYNTHESIS OF AN ENKEPHALIN DERIVATIVE USING 18-CROWN-6 AS NON-COVALENT AMINO PROTECTING GROUP

Tetrahedron Lett. 1990, 31, 399

Carolyn B. Hyde and P. Mascagni

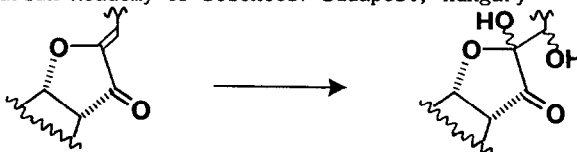
The School of Pharmacy, University of London, 29-39 Brunswick sq., WC1N 1AX London, U.K.

The synthesis of a pentapeptide is described as an example of non-covalent protection of amino groups. Dipeptide complexes with 18-crown-6 (1) have been used as the building blocks for the synthesis. Deprotection of the peptide intermediates has been accomplished by extraction with saturated KCl solutions.



Károly Kánai^{a*} and István Tömösközi^b^aResearch Centre of Chinoin Pharmaceutical Works Ltd, ^bCentral Research Institute of Chemistry, The Hungarian Academy of Sciences, Budapest, Hungary

Unexpected dihydroxylation of 7-oxo-prostacyclin and a related α -oxo enol ether by air is reported.

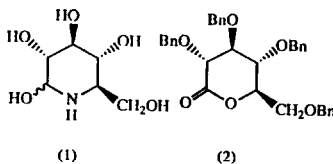


SOME COMMENTS ON AN ALLEGEDLY "FACILE SYNTHESIS OF NOJIRIMYCIN"

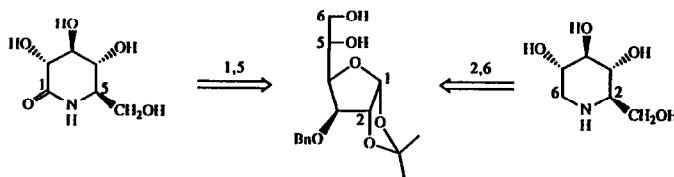
Tetrahedron Lett. 1990, 31, 405

G. W. J. Fleet,^a N. G. Ramsden,^a N. M. Carpenter,^a S. Petursson^{a,b} and R. T. Aplin^a^aDyson Perrins Laboratory, South Parks Road, Oxford, OX1 3QY, UK^bGlycobiology Unit, Department of Biochemistry, Oxford OX1 3QU

Difficulties in repeating a short synthesis of nojirimycin (1) from 2,3,4,6-tetra-O-benzyl-D-glucono- δ -lactone (2) are reported.

SYNTHESIS OF DEOXYNOJIRIMYCIN AND OF NOJIRIMYCIN δ -LACTAM

Tetrahedron Lett. 1990, 31, 409

George W. J. Fleet,^a Neil M. Carpenter,^a Sigthor Petursson^{a,b} and Nigel G. Ramsden^a^aDyson Perrins Laboratory and Oxford Centre for Molecular Sciences, South Parks Road, Oxford, OX1 3QY^bGlycobiology Unit, Department of Biochemistry, South Parks Road, Oxford OX1 3QU, UK

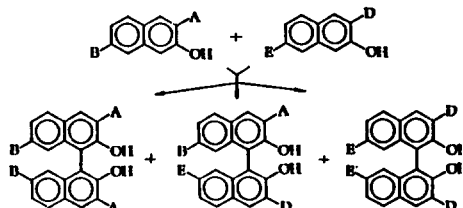
Tetrahedron Lett. 1990, 31, 413

HIGHLY SELECTIVE OXIDATIVE CROSS-COUPLING OF SUBSTITUTED 2-NAPHTHOLS: A CONVENIENT APPROACH TO UNSYMMETRICAL 1,1'-BINAPHTHALENE-2,2'-DIOLS.

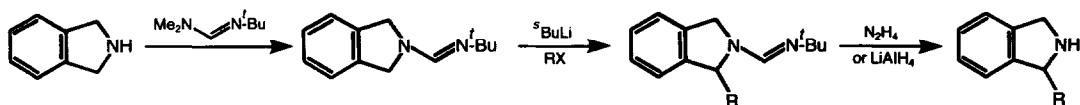
M. Hovorka, J. Günterová, and J. Závada

Institute of Organic Chemistry and Biochemistry, Czechoslovak Academy of Sciences, 166 10 Prague 6, Czechoslovakia

Oxidative coupling of several differently substituted 2-naphthols mediated by Cu(II)-amine complexes proceeds smoothly and depending on the substituents in some cases also with excellent selectivity (81-92%).

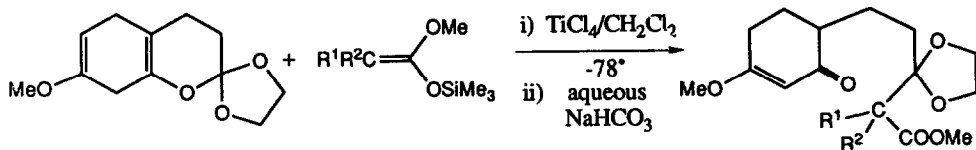


NOVEL 1-SUBSTITUTED-2,3-DIHYDRO-1H-ISOINDOLES: SYNTHESIS VIA MEYERS' METHODOLOGY.
L.J. Beeley and C.J.M. Rockell*, Beecham Pharmaceuticals Research Division, Biosciences Research Centre, Great Burgh, Epsom, Surrey, KT18 5XQ, England.



Enolic Ortho Esters. V. Regiospecific Generation of Diketo Ester Monoacetals by Reaction of an Enolic Ortho Ester with Ketene Acetals

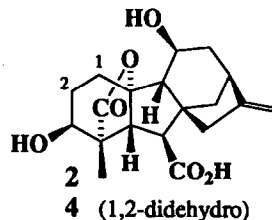
D.J. Collins, M. Dosen and A.G. Jhingran, Monash University, Clayton, Victoria 3168, Australia.



A GENERAL PROCEDURE FOR THE PREPARATION OF 11β-HYDROXY GIBBERELLINS: SYNTHESIS OF THE METHYL ESTERS OF GA₃₅ AND 11β-HYDROXY-GA₇

Lewis N. Mander* and Graham L. Patrick, Research School of Chemistry, Australian National University, GPO Box 4, Canberra, A.C.T. 2601, Australia

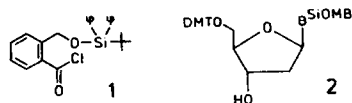
Hydroboration of gibberellin 9(11),16-dienes provides good access to 11β,17-diols from which 11β-hydroxy gibberellins may be prepared, eg. gibberellin A₃₅ (2) and 11β-hydroxy gibberellin A₇ (4), a new gibberellin from *Lolium temulentum*.



A NEW PROTECTED ACYL PROTECTING GROUP FOR EXOCYCLIC AMINO FUNCTIONS OF NUCLEOSIDES

C.M. Dreef-Tromp, P. Hoogerhout, G.A. van der Marei and J.H. van Boom Gorlaeus Laboratory, P.O. Box 9502, 2300 RA Leiden, The Netherlands

Treatment of persilylated d-nucleosides C, A and G with 2-(*tert*-butyldiphenylsilyloxymethyl)benzoyl chloride (1, SIOMB-Cl), and subsequently 4,4'-dimethoxytrityl chloride (DMT-Cl), afforded the corresponding N-SIOMB-5'-O-DMT d-nucleosides 2, the SIOMB group of which could be removed smoothly with fluoride ion. Compounds 2 proved to be suitable building units for the preparation of DNA fragments in solution and on a solid support.



CHEMISTRY OF INSECT ANTIFEEDANTS FROM AZADIRACHTA INDICA (PART 6)¹: SYNTHESIS OF AN OPTICALLY PURE ACETAL INTERMEDIATE FOR POTENTIAL USE IN THE SYNTHESIS OF AZADIRACHTIN AND NOVEL ANTIFEEDANTS.

James C. Anderson and Steven V. Ley.

Department of Chemistry, Imperial College of Science, Technology and Medicine, London, SW7 2AY, U.K.

Summary: For potential use in a synthesis of the antifeedant azadirachtin

(1) and novel antifeedants, a key tricyclic acetal intermediate (2) has been prepared in optically pure form in 12 steps from the known (-)-3-endo-bromotricyclo[3.2.0.0^{2,7}]heptan-6-one (3).

