Tetrahedron Lett.29,1747(1988)

LACTONE SYNTHESIS VIA DYOTROPIC REARRANGEMENT. STEREOSPECIFIC CONSTRUCTION OF FUSED BUTYROLACTONES WITH THREE CONTIGUOUS ASYMMETRIC CENTERS

T. Howard Black* and William J. DuBay, III
Department of Chemistry, Eastern Illinois University
Charleston, Illinois, USA 61920

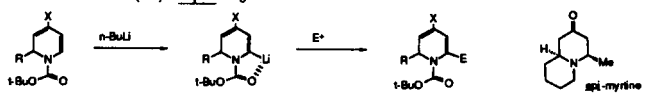
Synthesis of the title compounds via a stereospecific rearrangement of β-lactones

Tetrahedron Lett.29,1751(1988)

α-METALATION OF 1-(TERT-BUTOXYCARBONYL)-1,2-DIHYDRO-PYRIDINES

Daniel L. Comins,* Michael A. Weglarz, and Sean O'Connor
Department of Chemistry and Biochemistry, Utah State University, Logan, Utah 84322-0300

The α-metalation-alkylation of 1-(tert-butoxycarbonyl)-1,2-dihydropyridines is described and utilized in the synthesis of (±)-epi-myrtine.



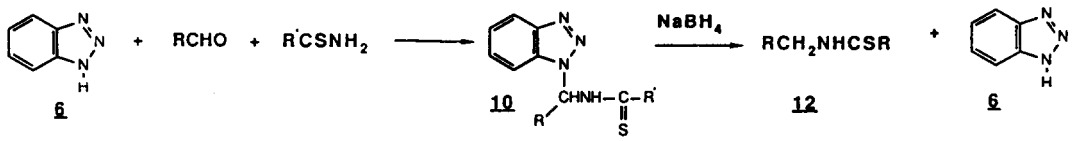
Tetrahedron Lett.29,1755(1988)

A GENERAL METHOD FOR N-MONOALKYLATION OF THIOAMIDES.[1]

Alan R. Katritzky* and Malgorzata Drewniak.

Department of Chemistry, University of Florida, Gainesville, Fl 32611.

Thioamides are N-alkylated in a two-step procedure: (i) Reaction with an aldehyde and benzotriazole yields an adduct which is (ii) reduced to the N-alkylthioamide by $NaBH_4$.

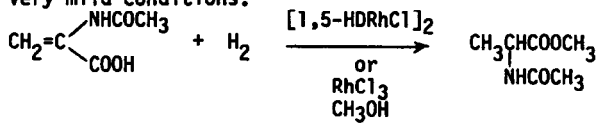


Tetrahedron Lett.29,1759(1988)

RHODIUM CATALYZED REDUCTIVE ESTERIFICATION REACTIONS

I.J.B. Lin, H.A. Zahalka, and H. Alper*
Ottawa-Carleton Chemistry Institute, Department of Chemistry, University of Ottawa, Ottawa Ontario K1N 9B4 Canada

Unsaturated acids undergo reductive esterification when treated with hydrogen, alcohol, and a rhodium catalyst under very mild conditions.

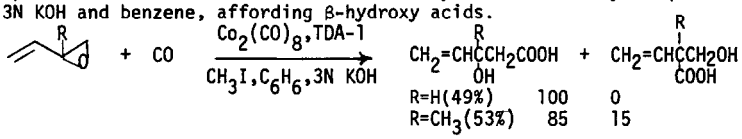


Tetrahedron Lett.29,1763(1988)

SYNTHESIS OF UNSATURATED HYDROXY ACIDS BY THE COBALT CARBONYL AND PHASE TRANSFER CATALYZED CARBONYLATION OF VINYL EPOXIDES.

Howard Alper* and Serge Calet,
Department of Chemistry, University of Ottawa, Ottawa, Ontario, Canada K1N 9B4

Vinyl epoxides react with carbon monoxide, methyl iodide, catalytic quantities of $Co_2(CO)_8$ and TDA-1, in 3N KOH and benzene, affording β-hydroxy acids.



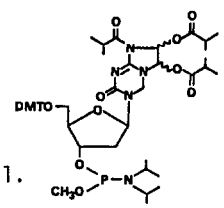
Tetrahedron Lett.29,1767(1988)

SYNTHESIS OF A PHOSPHORAMIDITE OF 2'-DEOXY-5,6-DIHYDRO-5-AZACYTIDINE. ITS POTENTIAL APPLICATION IN THE SYNTHESIS OF DNA CONTAINING DIHYDRO-5-AZA- AND 5-AZACYTOSINE BASES.

Amanda J. Goddard and Victor E. Marquez*

Laboratory of Medicinal Chemistry, DTP, DCT, NCI, NIH, Bethesda, Maryland 20892

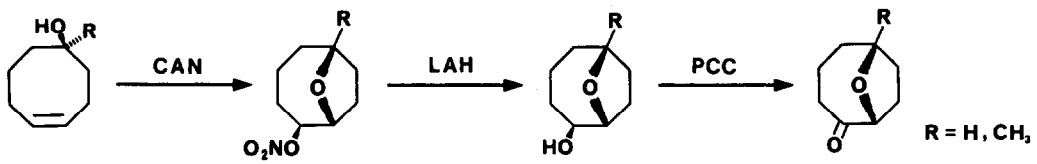
The phosphoramidite of 2'-deoxy-5,6-dihydro-5-azacytidine was prepared and used in the synthesis of oligonucleotides. Oxidation of the triazine ring in a model dihydro-5-azacytosine/thymine dimer was partially successful.



Tetrahedron Lett.29,1771(1988)

SUBSTITUENT-DIRECTED OXIDATION: HIGHLY REGIOSELECTIVE AND STEREOSELECTIVE OXIDATIVE CYCLIZATION OF CYCLOALKANOLS WITH CERIC AMMONIUM NITRATE.

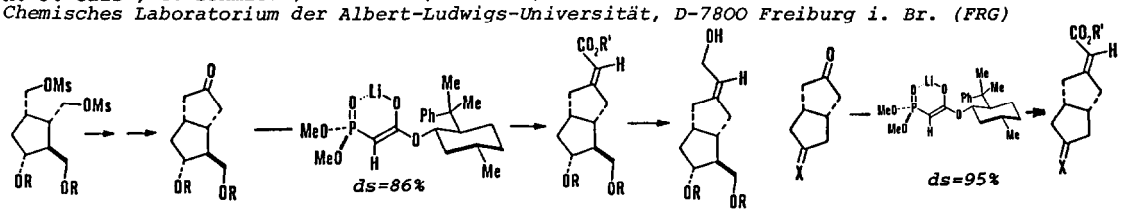
Ho-jin Kim & Matthew F. Schlecht*
Department of Chemistry, Polytechnic University, 333 Jay Street, Brooklyn, NY 11201, U.S.A.



Tetrahedron Lett.29,1773(1988)

SYNTHESIS OF OPTICALLY ACTIVE 3-OXA-CARBACYCLIN PRECURSORS FEATURING ASYMMETRIC HORNER-EMMONS REACTION

H.-J. Gais, G. Schmiedl, W.A. Ball, J. Bund, G. Hellmann and I. Erdelmeier*
Chemisches Laboratorium der Albert-Ludwigs-Universität, D-7800 Freiburg i. Br. (FRG)

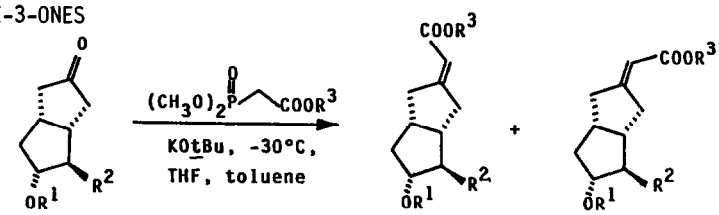


Tetrahedron Lett.29,1775(1988)

E- OR Z-SELECTIVE HORNER-WITTIG REACTIONS OF SUBSTITUTED BICYCLO[3.3.0]OCTANE-3-ONES WITH CHIRAL PHOSPHONOACETATES

Hartmut Rehwinkel*, Jürgen Skupsch, and Helmut Vorbrüggen

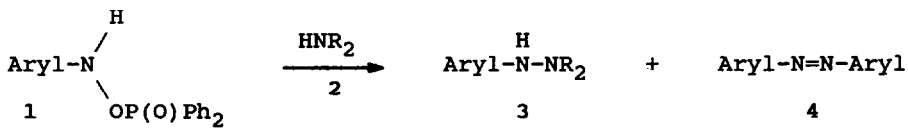
Research Laboratories, Schering AG, D-1000 Berlin 65, Federal Republic of Germany



Tetrahedron Lett.29,1777(1988)

HYDRAZINES AND AZO COMPOUNDS FROM O-DIPHENYLPHOSPHINOYL ARYLHYDROXYLAMINES

Gernot Boche*, Chris Meier, Wolfgang Kleemiß
Fachbereich Chemie der Philipps-Universität Marburg, D-3550 Marburg, FRG

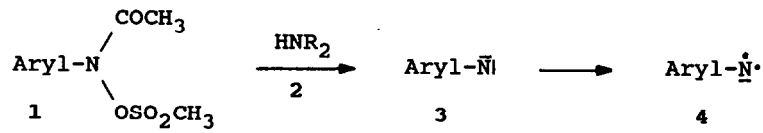


In the reactions of 1 with 2, 3 is formed via electrophilic amination. The azo compounds 4 are not formed via the corresponding nitrenes as one might assume.

Tetrahedron Lett.29,1781(1988)

FORMATION OF ACCEPTOR SUBSTITUTED PHENYLNITRENES VIA α-ELIMINATION UNDER MILD CONDITIONS

Ferdinand Bosold, Gernot Boche*, Wolfgang Kleemiß
Fachbereich Chemie der Philipps-Universität Marburg, D-3550 Marburg, FRG

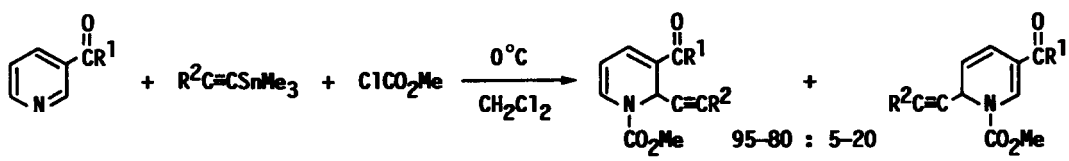


The products formed from 1 and 2 arise from the singlet 3 and triplet nitrenes 4 which are formed via α-elimination under mild conditions.

Tetrahedron Lett.29,1785(1988)

REGIO- AND CHEMOSELECTIVE ADDITION OF ALKYNYLTIN REAGENTS TO THE 2-POSITION OF 3-ACYLPYRIDINES ACTIVATED BY METHYL CHLOROFORMATE: SELECTIVE SYNTHESIS OF 2,3-DISUBSTITUTED 1,2-DIHYDROPYRIDINES

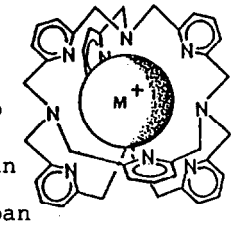
Ryohei Yamaguchi,* Ei-ichiro Hata, and Kiitiro Utimoto
Department of Industrial Chemistry, Kyoto University, Yoshida, Kyoto 606, Japan



Tetrahedron Lett.29,1789(1988)

HIGHLY SYMMETRICAL CAGE COMPOUNDS, IN WHICH ALL SIX, EIGHT OR TEN LONE PAIRS ON NITROGEN ATOMS AT BRIDGEHEAD OR INTERVENING PYRIDINE RINGS ARE ORIENTED TOWARD THE CENTRAL CAVITY

Hiroyuki Takemura*[a], Teruo Shinmyozu[b], and Takahiko Inazu*[b]
a Laboratory of Chemistry, College of Education, Kyushu University, Ropponmatsu 4-2-1, Chuo-ku, Fukuoka, 810 Japan
b Department of Chemistry, Faculty of Science, Kyushu University, Hakozaki 6-10-1, Higashi-ku, Fukuoka, 812 Japan

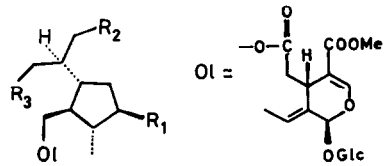


Tetrahedron Lett.29,1793(1988)

SAMBACOSIDES A, E and F, NOVEL TETRAMERIC IRIDOID GLUCOSIDES FROM *JASMINUM SAMBAC*

Takao Tanahashi,[a)] Naotaka Nagakura,*,[a)] Kenichiro Inoue[b)] and Hiroyuki Inouye[b)]
a) Kobe Women's College of Pharmacy, Higashinada, Kobe 658, Japan b) Faculty of Pharmaceutical Sciences, Kyoto University, Sakyo, Kyoto 606, Japan

Sambacoside A; R_1=R_2=Ol, R_3=OH
Sambacoside E; R_1=OH, R_2=R_3=Ol
Sambacoside F; R_1=R_3=Ol, R_2=OH

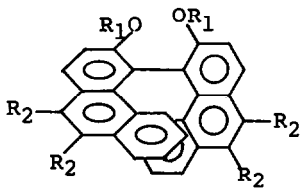


Tetrahedron Lett.29,1797(1988)

NEW LIQUID CRYSTALS HAVING 4,4'-BIPHENANTHRYL CORE

Kazuo Yamamura,* Satoru Ono, and (the late) Iwao Tabushi
Department of Synthetic Chemistry, Kyoto University, Sakyo-ku, Kyoto 606, Japan

(±)-4,4'-Biphenanthryl derivative (1a, 1b) carrying six or four long tails forms a thermotropic liquid crystalline mesophase (a, R_1=$C_{12}H_{25}$; R_2=$OCOC_7H_{15}$: b, R_1=CH_3; R_2=$OCOC_{11}H_{23}$)

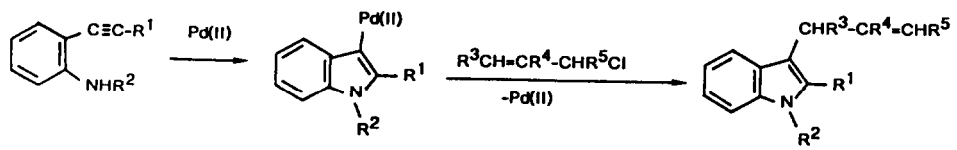


(±)-1 (a,b)

Tetrahedron Lett.29,1799(1988)

PALLADIUM CATALYZED REACTION OF 2-ALKYNYLANILINES WITH ALLYL CHLORIDES. FORMATION OF 3-ALLYLINDOLES

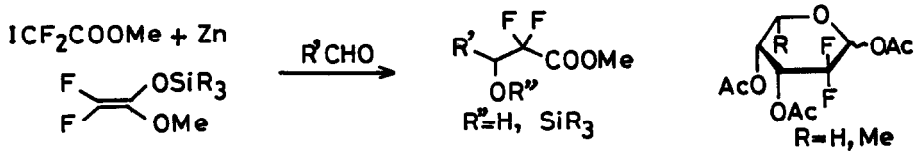
Koji Iritani, Seijiro Matsubara, and Kiitiro Utimoto
Department of Industrial Chemistry, Faculty of Engineering, Kyoto University, Yoshida, Kyoto 606, Japan



Tetrahedron Lett.29,1803(1988)

ALDOL REACTION OF IODODIFLUOROACETATE-Zn AND 2,2-DIFLUOROKETENE SILYL ACETAL

Osamu Kitagawa, Takeo Taguchi, and Yoshiro Kobayashi*
Tokyo College of Pharmacy, 1432-1 Horinouchi, Hachioji, Tokyo 192-03, Japan

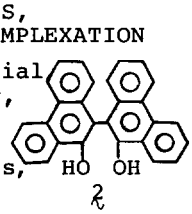


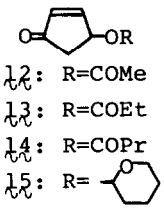
Tetrahedron Lett.29,1807(1988)

A NEW CHIRAL HOST COMPOUND 10,10'-DIHYDROXY-9,9'-BIPHENANTHRYL. OPTICAL RESOLUTION OF PROPIONIC ACID DERIVATIVES, BUTYRIC ACID DERIVATIVES, AND 4-HYDROXYCYCLOPENT-2-EN-1-ONE DERIVATIVES BY COMPLEXATION

Fumio Toda and Koichi Tanaka, Department of Industrial Chemistry, Faculty of Engineering, Ehime University, Matsuyama 790, Japan

Optically active 2 was found to be very useful for resolution of propionic and butyric acid derivatives, and 12-15.

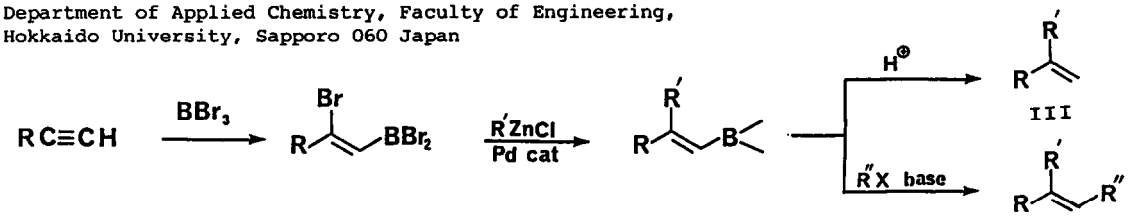




Tetrahedron Lett.29,1811(1988)

ORGANIC SYNTHESIS USING HALOBORATION REACTIONS 11. A FORMAL CARBOBORATION REACTION OF 1-ALKYNES AND ITS APPLICATION TO THE DI- AND TRISUBSTITUTED ALKENE SYNTHESIS

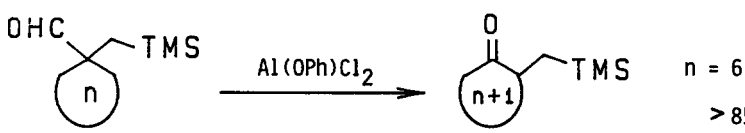
Yoshitaka Satoh, Hirokazu Serizawa, Norio Miyaura, Shoji Hara, and Akira Suzuki*
Department of Applied Chemistry, Faculty of Engineering, Hokkaido University, Sapporo 060 Japan



Tetrahedron Lett.29,1815(1988)

A HIGHLY SELECTIVE ONE-CARBON RING ENLARGEMENT REACTION DIRECTED BY SILICON

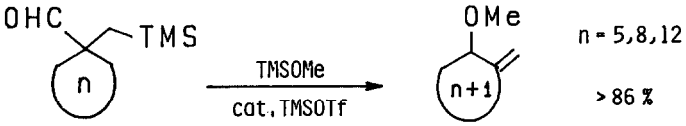
Keiji Tanino, Tetsuya Katoh, and Isao Kuwajima*
Department of Chemistry, Tokyo Institute of Technology, Meguro, Tokyo 152



Tetrahedron Lett.29,1819(1988)

A HIGHLY EFFICIENT METHOD FOR ONE-CARBON RING EXPANSION. PREPARATION OF 1-ALKOXY-2-METHYLENECYCLOALKANES.

Tetsuya Katoh, Keiji Tanino, and Isao Kuwajima*
Department of Chemistry, Tokyo Institute of Technology, Meguro, Tokyo 152.

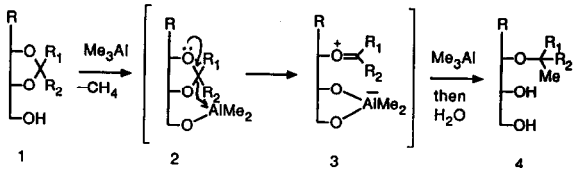


Tetrahedron Lett.29,1823(1988)

REGIOSELECTIVE FORMATION OF 3-tertALKOXY-1,2-GLYCOLS FROM 2,3-O-ALKYLIDENETRIOLS WITH TRIMETHYLALUMINUM

Seiichi Takano,* Takehiko Ohkawa, and Kunio Ogasawara
Pharmaceutical Institute, Tohoku University, Aobayama, Sendai 980 Japan

2,3-O-Alkylidenetriols ungergo nucleophilic cleavage to give 3-tert-alkoxy-1,2-glycols regioselectively on treatment with trimethylaluminum.

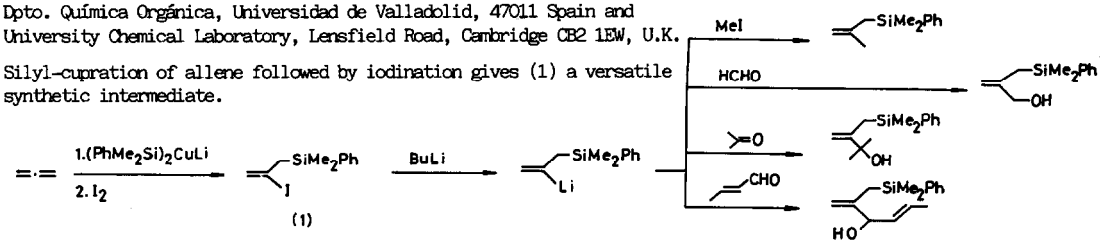


Tetrahedron Lett.29,1825(1988)

SILYL-CUPRATION OF ALLENE. A NEW ROUTE TO SILYLATED SYNTHONS.

P.Cuadrado, A.M.González, F.J.Pulido and I.Fleming
Dpto. Química Orgánica, Universidad de Valladolid, 47011 Spain and University Chemical Laboratory, Lensfield Road, Cambridge CB2 1EW, U.K.

Silyl-cupration of allene followed by iodination gives (1) a versatile synthetic intermediate.

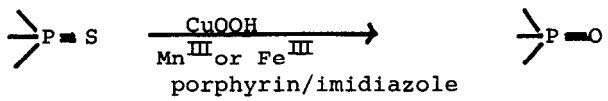


Tetrahedron Lett.29,1827(1988)

CATALYSIS BY METALLOPORPHYRINS OF OXIDATIVE DESULPHURISATION AT PENTACOVALENT PHOSPHORUS BY CUMYL HYDROPEROXIDE

R. Stephen Davidson and Martin D. Walker,
Department of Chemistry, The City University, Northampton Square, London EC1V OHB

Cumyl hydroperoxide causes oxidative desulphurisation at pentacovalent phosphorus with retention of configuration.

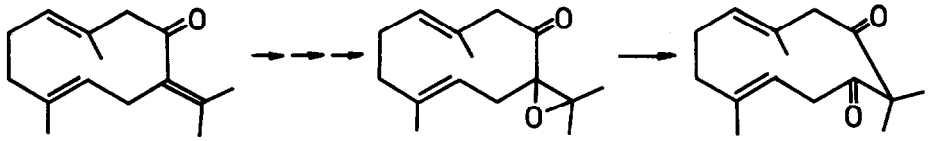


Tetrahedron Lett.29,1829(1988)

BIOMIMETIC GERMACRENE-HUMULENE REARRANGEMENT

Valentin Enev and Elena Tsankova*
Institute of Organic Chemistry with Centre of Phytochemistry,
Bulgarian Academy of Sciences, 1113 Sofia, Bulgaria

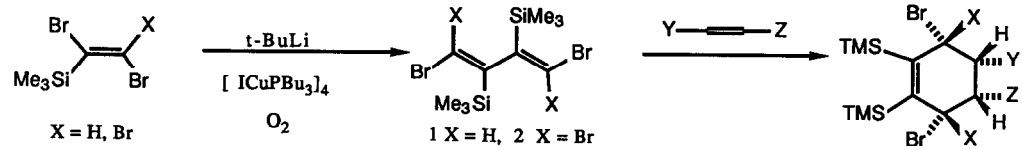
The first chemical conversion of a germacrane into a humulane skeleton is described.



Tetrahedron Lett.29,1833(1988)

(Z,Z)-2,3-BIS(TRIMETHYLSILYL)-1,4-DIBROMO- AND 2,3-BIS(TRIMETHYLSILYL)-1,1,4,4-TETRABROMOBUTA-1,3-DIENES. SYNTHESIS AND DIELS-ALDER REACTIONS.

Peter J. Garratt and Andrew Tsotinis
Department of Chemistry, University College London, 20 Gordon Street, London WC1H 0AJ.



Tetrahedron Lett.29,1837(1988)

PARTIALLY-ACETYLATED DODECANYL TRI- AND TETRA-RHAMNOSIDE DERIVATIVES FROM Cleistopholis glauca (ANNONACEAE)

Pierre Tané, Johnson F. Ayafor, and B. Lucas Sondengam, (Department of Chemistry, University of Yaoundé, Cameroon)
Catherine Lavaud and Georges Massiot, (Department of Pharmacy, University of Reims, France) and Joseph D. Connolly, David S. Rycroft, and Neill Woods, (Department of Chemistry, University of Glasgow, Glasgow G12 8QQ, Scotland)

Five partially-acetylated derivatives of the 1-O-dodecanyl tetrarhamnoside (1) and a related trirhamnoside have been isolated from the bark of Cleistopholis glauca and their structures elucidated by COSY, delayed COSY and FAB mass spectroscopy.
α-L-rha-(1→3)-α-L-rha-(1→3)-α-L-rha-(1→4)-α-L-rha-O$C_{12}H_{25}$ (1)

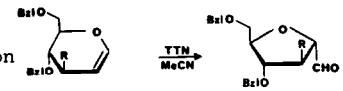
Tetrahedron Lett.29,1841(1988)

REACTION BETWEEN GLYCAL BENZYL ETHERS AND THALLIUM (III) NITRATE. SYNTHESIS OF SHOWDOMYCIN ANALOGUES

Andrew Kaye[a], Stephen Neidle[b], and Colin B. Reese*[a]

[a]Department of Chemistry, King's College London, Strand, London WC2R 2LS, U.K.
[b]Institute of Cancer Research, Clifton Avenue, Sutton, Surrey SM2 5PX, U.K.

Treatment of the glycal benzyl ethers (R=OCH_2Ph and R=H) with thallium (III) nitrate, trihydrate (TTN) in acetonitrile solution at room temperature gives the corresponding aldehydo-compounds which are intermediates in the synthesis of analogues of showdomycin



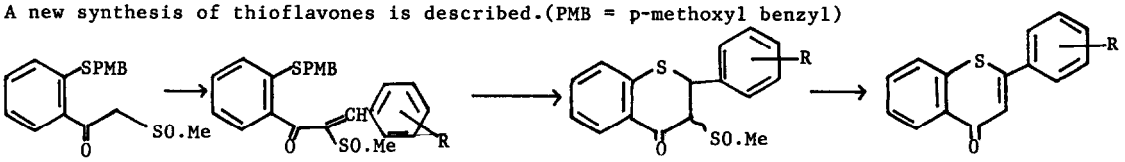
Tetrahedron Lett.29,1845(1988)

A NEW SYNTHESIS OF THIOFLAVONES

A.W. Taylor* and D.K. Dean

Beecham Pharmaceuticals Research Division, Biosciences Research Centre, Yew Tree Bottom Road, Burgh Heath, Epsom, Surrey, England, KT18 5XQ.

A new synthesis of thioflavones is described.(PMB = p-methoxyl benzyl)

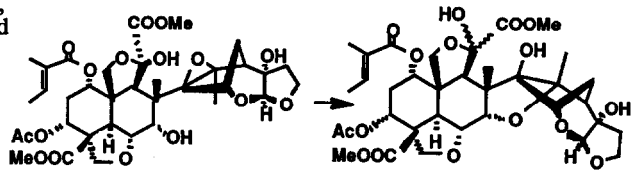


Tetrahedron Lett.29,1849(1988)

CHEMISTRY OF INSECT ANTIFEEDANTS FROM AZADIRACHTA INDICA (PART1):CONVERSION FROM THE AZADIRACHTIN TO THE AZADIRACHTININ SKELETONS

John N. Bilton, Philip S. Jones, Steven V. Ley*, Nicholas G. Robinson, and Richard N. Sheppard
Department of Chemistry, Imperial College, London SW7 2AY, U.K.

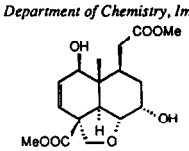
The conversion of azadirachtin derivatives to the corresponding azadirachtinin skeletons can be achieved in high yield under mild conditions



Tetrahedron Lett.29,1853(1988)

CHEMISTRY OF INSECT ANTIFEEDANTS FROM AZADIRACHTA INDICA (PART 2): SYNTHESIS OF A POLYOXYGENATED DECALIN WITH LIMONOID STRUCTURAL HOMOLOGY.

Maria Gabriella Brasca, Howard B. Broughton, Donald Craig, Steven V. Ley, Antonio Abad Somovilla, and Peter L. Toogood.
Department of Chemistry, Imperial College, London, SW7 2AY, U.K.



(2)

The synthesis of a polyoxygenated decalin (2) with limonoid structural homology, common to salannin and azadirachtin, has been completed using an efficient intramolecular Diels-Alder cycloaddition.