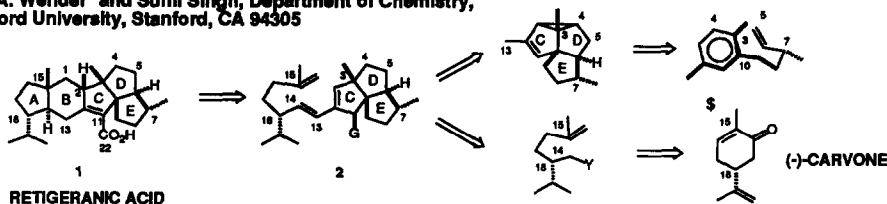


GRAPHICAL ABSTRACTS

SYNTHETIC STUDIES ON ARENE-ALKENE CYCLOADDITIONS. 11. TOTAL SYNTHESIS OF (-)-RETIGERANIC ACID
 Paul A. Wender* and Sunil Singh, Department of Chemistry, Stanford University, Stanford, CA 94305

Tetrahedron Lett. 1990, 31, 2517



A convergent synthesis of (-)-retigeranic acid is described that is based on a Diels-Alder and arene-alkene cycloaddition strategy.

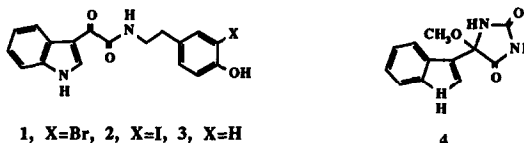
POLYANDROCARPAMIDES A-D, NOVEL METABOLITES FROM THE MARINE ASCIDIAN *POLYANDROCARPA SP.*

Tetrahedron Lett. 1990, 31, 2521

Niels Lindquist and William Fenical*

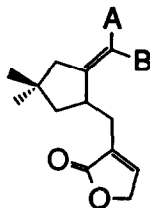
Scripps Institution of Oceanography, University of California, San Diego, La Jolla, CA 92093-0228

The structures of polyandropamidines A-D (1-4) are described on the basis of comprehensive NMR experiments and the synthesis of the unsubstituted phenethylamine analog of 1.



ELECTROLYTE-ASSISTED STEREOSELECTION AND CONTROL OF CYCLIZATION VS SATURATION IN ELECTROREDUCTIVE CYCLIZATIONS. H. E. Bode, C. G. Sowell, R. D. Little*, Department of Chemistry, UCSB, Santa Barbara, CA 93106

Tetrahedron Lett. 1990, 31, 2525

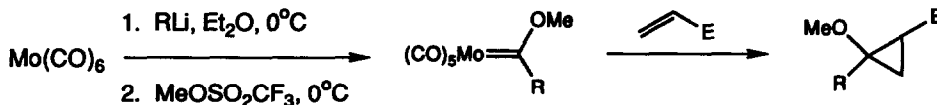


Electroreductive cyclization occurs when A = B = CO₂Me and CN, but not when A = CO₂Me or CN and B = H; reasons for this behavior are presented. Cyclization proceeds stereoselectively when the supporting electrolyte is LiClO₄ or Mg(ClO₄)₂, but not when *n*-Bu₄NBr is used. Chelation between the substrate and the metal is suggested to account for the result.

MOLYBDENUM CARBENE COMPLEXES: CYCLOPROPANATION OF ELECTRON-POOR OLEFINS

Tetrahedron Lett. 1990, 31, 2529

Daniel F. Harvey* and Matthew F. Brown
 Department of Chemistry, D-006
 University of California, San Diego
 La Jolla, CA 92093

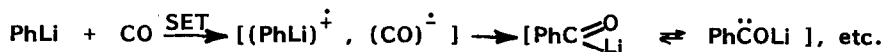


SPECTROSCOPIC DETERMINATION OF RADICAL ANIONS IN THE REACTION OF PHENYLITHIUM WITH CARBON MONOXIDE.

N. S. Nudelman,* F. Doctorovich and G. Amorin

Depto. Química Organica, Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires, Pab. II, P. 3, Ciudad Universitaria, 1428 Buenos Aires, ARGENTINA.

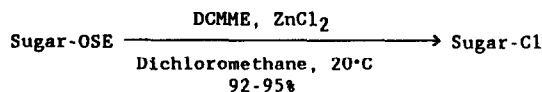
The determination of radical anions in relatively high concentrations in the reaction of phenyllithium with carbon monoxide suggests that the reaction proceeds by SET mechanism/s.



A FACILE, ONE-STEP PROCEDURE FOR THE CONVERSION OF 2-(TRIMETHYLSILYL)ETHYL GLYCOSIDES TO THEIR GLYCOSYL CHLORIDES

K.P. Ravindranathan Kartha and Harold J. Jennings

Division of Biological Sciences, National Research Council of Canada, Ottawa, Ontario, Canada K1A 0R6



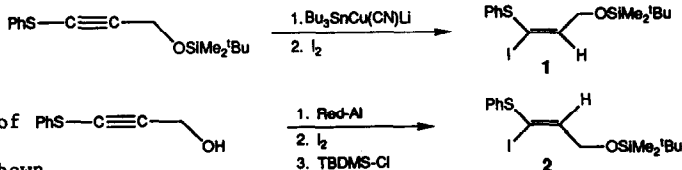
SE = 2-(Trimethylsilyl)ethyl
DCMME = α,α -Dichloromethyl methyl ether

STEREOSELECTIVE CONSTRUCTION AND SYNTHETIC APPLICATIONS OF PHENYLTHIO SUBSTITUTED IODOOLEFINS

Plato A. Magriotis,* Timothy J. Doyle, and Kee D. Kim

Department of Chemistry, West Virginia University, Morgantown, WV 26506

(E)- and (Z)-Phenylthio substituted iodoolefins **1** and **2** have been synthesized stereoselectively. Their utility in model studies on the synthesis of calicheamicin/esperamicin and neocarzinostatin aglycones is shown.

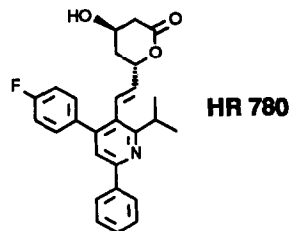


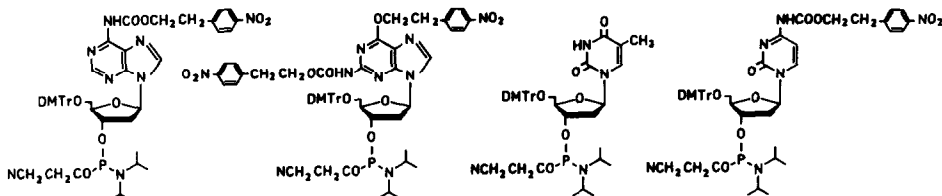
STEREOSELECTIVE SYNTHESIS OF HR 780

A NEW HIGHLY POTENT HMG-COA REDUCTASE INHIBITOR

G. Wess, K. Kessler, E. Baader, W. Bartmann, G. Beck, A. Bergmann, H. Jendralla, K. Bock, G. Holzstein, H. Kleine, M. Schnierer
Hoechst AG, Pharma Forschung, Postfach 800320, D-6230 Frankfurt-80

HR 780 has been synthesized stereospecifically starting from L-malic acid.

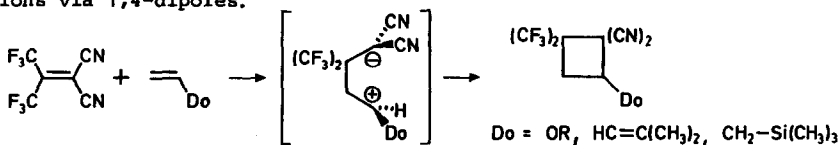


IMPROVED SYNTHESIS
OF OLIGODEOXYRIBONUCLEOTIDESKlaus-Peter Stengle and Wolfgang Pfeleiderer
Fakultät für Chemie, Universität Konstanz, Postfach 5560, D-7750 Konstanz/West GermanyThe design of a new polymer support in combination with the well experienced β -eliminating protecting groups offers an improved approach for automated oligonucleotide synthesis.

[2+2] CYCLOADDITIONS OF 2,2-BIS(TRIFLUOROMETHYL)ETHYLENE-1,1-DICARBONITRILE WITH ENOL ETHERS, 1,1-DIMETHYLBUTADIENE, AND ALLYLTRIMETHYLSILANE

R. Huisgen*, R. Brückner, Institut für Organische Chemie der Universität München, FRG

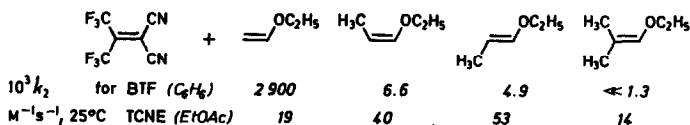
The title olefin (BTF) and donor-substituted olefins undergo regiospecific, but nonstereospecific [2+2] cycloadditions via 1,4-dipoles.



KINETICS OF [2+2] CYCLOADDITIONS OF 2,2-BIS(TRIFLUOROMETHYL)-ETHYLENE-1,1-DICARBONITRILE WITH ENOL ETHERS, 1,1-DIMETHYLBUTADIENE, AND ALLYLTRIMETHYLSILANE

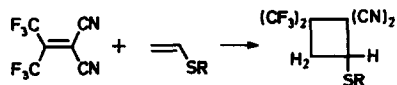
R. Brückner, R. Huisgen*, Institut für Organische Chemie der Universität München, FRG

The title olefin (BTF) reacts up to 2400 times faster than TCNE with vinyl ethers via zwitterionic intermediates; the rate constants increase 70- to 2400-fold with rising solvent polarity.



[2+2] CYCLOADDITIONS OF 2,2-BIS(TRIFLUOROMETHYL)ETHYLENE-1,1-DICARBONITRILE WITH VINYL SULFIDES AND KETENE S,S-ACETALS

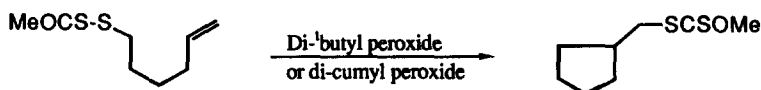
R. Brückner, R. Huisgen*, Institut für Organische Chemie der Universität München, FRG

The title reaction furnishes cyclobutanes via 1,4-dipoles. The acceptor olefin (BTF) adds 8200 times faster than TCNE to methyl vinyl sulfide, and BTF + H₂C=CH-SC₆H₅ react in acetonitrile 1600 times faster than in cyclohexane. Some vinyl sulfides exceed vinyl ethers in rate: $k_S/k_O = 66$ for H₂C=CH-XC₆H₅.

DITHIOCARBONATE GROUP TRANSFER IN RADICAL CHAIN REACTIONS

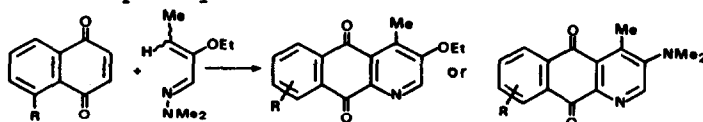
Judith E. Forbes, Catherine Tailhan, and Samir Z. Zard*
 Laboratoire de Synthèse Organique, Ecole Polytechnique, 91128 Palaiseau, France

Alkyl and cycloalkyl xanthates can serve as a convenient source of carbon centered radicals in a chain process involving carbon-carbon bond formation, and initiated by a suitable peroxide.

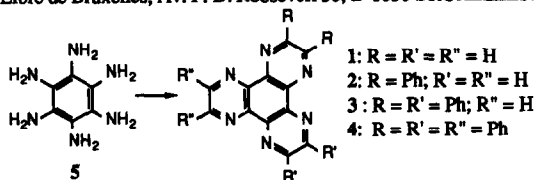


SYNTHESIS OF AZAANTHRAQUINONE DERIVATIVES VIA A HETERO DIELS-ALDER REACTION

Pascal Nebois, Roland Barret and Houda Fillion*
 Laboratoire de Chimie Organique, Institut des Sciences Pharmaceutiques et Biologiques, 8 avenue Rockefeller 69373 Lyon Cedex 08, France.
 Azaanthraquinones derivatives are prepared by cycloadditions of 1-azadiene to 5-substituted naphthoquinones.



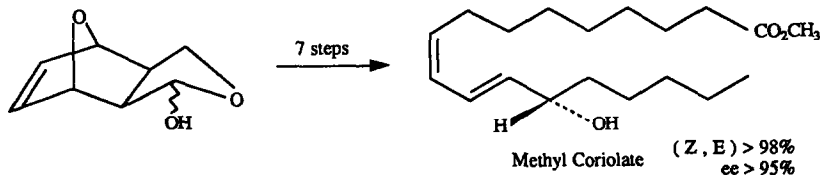
2,3-DIPHENYL- AND 2,3,6,7-TETRAPHENYL-HEXA-AZATRIPHENYLENE, LIGANDS FOR TRANSITION METALS. J. Nasielski, C. Moucheron, C. Verboeven and R. Nasielski-Hinkens. Chimie Organique CP 160, Université Libre de Bruxelles, Av. F. D. Roosevelt 50; B-1050 BRUXELLES.



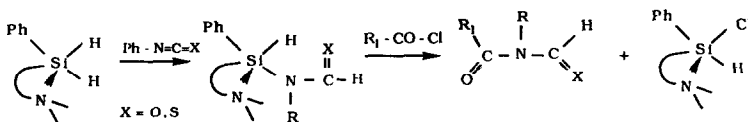
The condensation of hexa-aminobenzene 5 with glyoxal and benzil gives a mixture of the four hexa-azatriphenylenes 1, 2, 3 and 4. The overall yield and relative amounts of products strongly depend on concentrations and pH. It is possible to synthesize preferentially 2 (34%) or 3 (35%) by carefully adjusting the experimental conditions.

AN EFFICIENT SYNTHESIS OF 13(S)-HYDROXY-9Z,11E-OCTADECADIENOIC(CORIOLIC)ACID.

Robert BLOCH* and Marie-Thérèse PERFETTI
 Laboratoire des Carbocycles (Associé au C.N.R.S.), Institut de Chimie Moléculaire d'Orsay, Bât. 420
 Université de Paris-Sud, 91405 ORSAY (France)



A NEW AND MILD ACCESS TO N-FUNCTIONALIZED FORMAMIDO AND THIOFORMAMIDO COMPOUNDS USING HYPERVALENT SILICON HYDRIDES

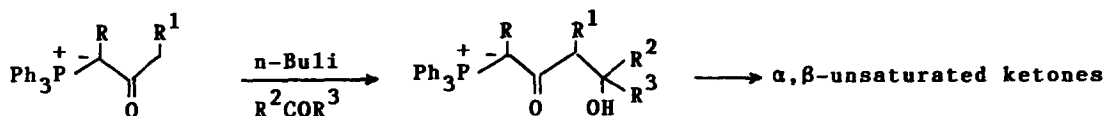
Robert J.P. Corriu*, Gérard F. Lanneau, Myriam Perrot-Petta, Vimal D. Mehta
Universite de Montpellier II - Case 007 - 34095 - Montpellier-cédex 5 - France

The one-pot reaction of N-silyl(thio)formamides obtained from pentacoordinated hydrogensilanes and iso(thio)cyanates, plus electrophiles gives highly functionalized (thio)formamides.

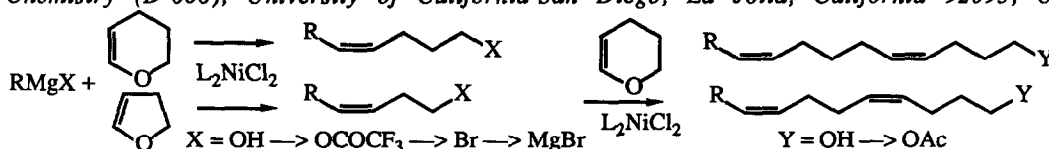
A NEW SYNTHESIS OF α,β -UNSATURATED KETONES

J. LE ROUX and M. LE CORRE*

Laboratoire de Synthèse Organique, Université de Rennes, 35042 RENNES - FRANCE



Short, Regio- and Stereo-selective Preparation of 1,5- and 1,6-Dienes.

Syntheses of *Eudia pavonia* Pheromone and Gossyplure.J.-P. Ducoux, P. Le Ménez, and N. Kunesch*, *Faculté de Pharmacie, 92296 Châtenay-Malabry Cedex, France*, G. Kunesch*, *Université Paris-Sud, 91405 Orsay Cedex, France*, E. Wenkert*, *Department of Chemistry (D-006), University of California-San Diego, La Jolla, California 92093, U.S.A.*DEPROTECTION OF CARBONYL GROUPS BY ANODIC OXIDATION OF DITHIOACETALS: A KEY STEP IN THE SYNTHESIS OF α -DIONES, α -KETOLS AND CHIRAL SYNTHONS.

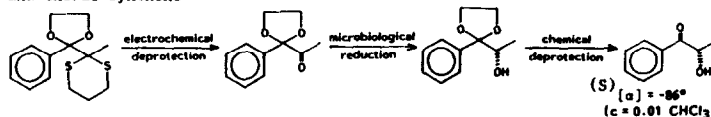
Anne-Marie Martre and Guy Mousset*

Laboratoire d'Electrochimie Organique associé au CNRS

Rachid Bel Rhlid and Henri Veschambre

Laboratoire de Chimie Organique Biologique associé au CNRS

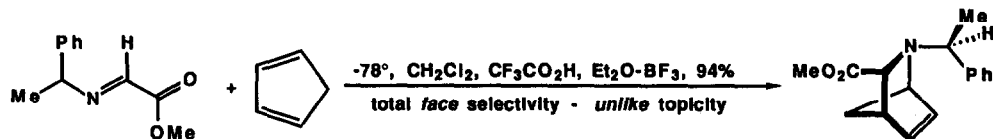
63177 AUBIERE France.

The anodic oxidation of thioacetals is a key step in the synthesis of α -diones and chiral synthons

Tetrahedron Lett. 1990, 31, 2603

ASYMMETRIC AZA-DIELS-ALDER REACTION USING THE CHIRAL 1-PHENYL-ETHYL IMINE OF METHYL GLYOXYLATE

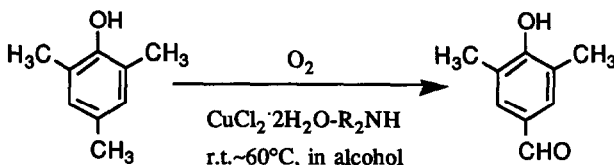
L. STELLA, H. ABRAHAM, *Laboratoire de Chimie Organique B - Associé au CNRS - Faculté des Sciences Saint-Jérôme - B 562, Université d'Aix-Marseille III, Av. Normandie-Niemen - 13397 Marseille Cédex 13 - France* ; J. FENEAU-DUPONT, B. TINANT, J.P. DECLERCQ, *Laboratoire de Chimie Physique et de Cristallographie, Université Catholique de Louvain, 1, place Louis Pasteur - 1348 Louvain la Neuve - Belgique*



Tetrahedron Lett. 1990, 31, 2607

A NOVEL OXYGENATION OF 2,4,6-TRIMETHYLPHENOL TO 3,5-DIMETHYL-4-HYDROXYBENZALDEHYDE BY DIOXYGEN WITH COPPER(II)-AMINE COMPLEX CATALYST

Katsuomi TAKEHIRA,* Masao SHIMIZU, Yoshihito WATANABE, Hideo ORITA and Takashi HAYAKAWA
National Chemical Laboratory for Industry, Tsukuba Research Center, Tsukuba, Ibaraki 305, Japan

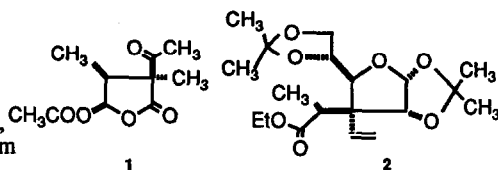


Tetrahedron Lett. 1990, 31, 2609

TOTAL SYNTHESIS OF (-)-ACETOMYCIN

Kin-ichi Tadano,* Jun Ishihara, and Seiichiro Ogawa
Department of Applied Chemistry, Keio University, Hiyoshi, Kohoku-ku, Yokohama 223, Japan

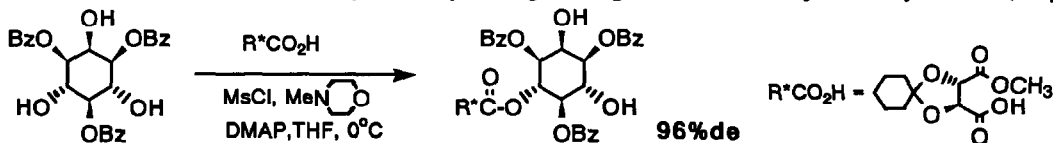
The first total synthesis of the titled antibiotic (1) has been completed. As an enantiomerically pure starting material, D-glucose derived synthon (2) with a quaternary carbon atom was employed.



Tetrahedron Lett. 1990, 31, 2613

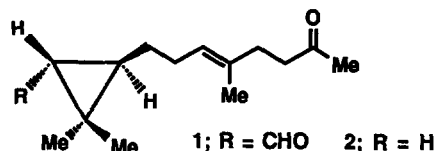
EASY ACCESS OF OPTICALLY ACTIVE MYO-INOSITOL DERIVATIVES BY ENANTIOSELECTIVE ACYLATION USING A TARTARIC ACID MONOESTER

Yutaka Watanabe,* Akinori Oka, Yasushi Shimizu, and Shoichiro Ozaki*
Department of Resources Chemistry, Faculty of Engineering, Ehime University, Matsuyama 790, Japan



NOVEL SECO- AND SECONORSEQUESTERPENES HAVING A CYCLOPROPANE RING FROM THE OKINAWAN ACTINIA ANTHOPLEURA PACIFICA UCHIDA

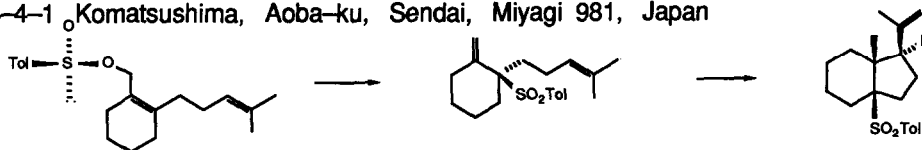
G. Zheng, M. Hatano, M. O. Ishitsuka, T. Kusumi, H. Kakisawa*,
Department of Chemistry, The University of Tsukuba, Tsukuba,
Ibaraki 305, Japan



Two new sesquiterpenoids 1 and 2 have been isolated, and their structures, biogenesis, and cytotoxicities have been investigated.

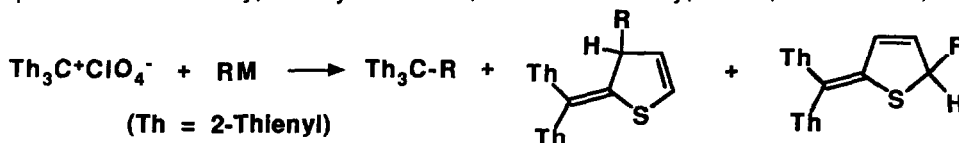
ASYMMETRIC ENE REACTIONS OF CHIRAL ALLYLIC SULFONES VIA CHIRAL ALLYLIC SULFINATE-SULFONE REARRANGEMENTS

Kunio Hiroi,* Masatoshi Yamamoto, Yuji Kurihara, and Hiroshi Yonezawa
Department of Synthetic Organic Chemistry, Tohoku College of Pharmacy,
4-4-1 Komatsushima, Aoba-ku, Sendai, Miyagi 981, Japan



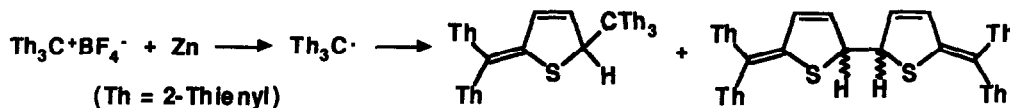
REACTION OF TRI-2-THIENYL CARBENIUM PERCHLORATE WITH HYDROGEN AND CARBON NUCLEOPHILE

Akihiko Ishii, Juzo Nakayama,* Yoshiyuki Endo, and Masamatsu Hoshino
Department of Chemistry, Faculty of Science, Saitama University, Urawa, Saitama 338, Japan



DIMERIZATION OF TRI-2-THIENYLMETHYL RADICAL

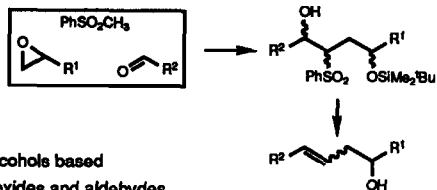
Juzo Nakayama,* Akihiko Ishii, Yurie Yamada, Motoaki Sugino, and Masamatsu Hoshino
Department of Chemistry, Faculty of Science, Saitama University, Urawa, Saitama 338, Japan



STERESELECTIVE HOMOALLYLIC ALCOHOL SYNTHESIS *via* SULPHONE α -CARBANION-MEDIATED COUPLING REACTIONS

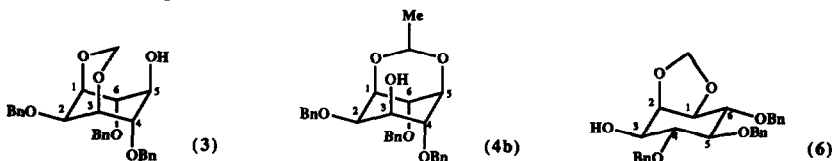
Donald Craig* and Alison M. Smith
Department of Chemistry, Imperial College of Science,
Technology and Medicine, London SW7 2AY, U.K.

A novel method is described for the synthesis of homoallylic alcohols based on one-pot coupling reactions of sulphone carbanions with epoxides and aldehydes.



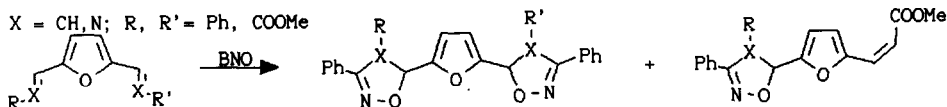
SYNTHESIS OF PROTECTED *myo*-INOSITOLS

Ian H. Gilbert,^a Andrew B. Holmes,^{a*} and Rodney C. Young,^b
a. University Chemical Laboratory, Lensfield Road, Cambridge, CB2 1EW, U. K.
b. Smith, Kline and French Research Limited, The Frythe, Welwyn, Hertfordshire, AL6 9AR, U. K.
The synthesis of compounds 3, 4b and 6 is described.



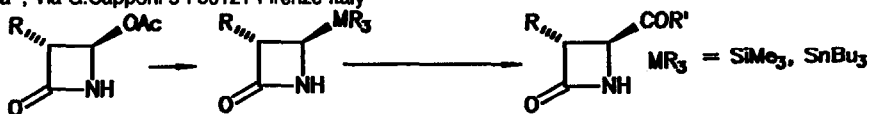
1,3-DIPOLAR CYCLOADDITIONS OF BENZONITRILE OXIDE TO VINYL AND AZAVINYL FURAN DERIVATIVES

Carmen Domínguez, Aurelio G. Csáky and Joaquín Plumet*.
Universidad Complutense de Madrid. Facultad de Química. Departamento de Química Orgánica I. Ciudad Universitaria. E-28040 Madrid. Spain.
1,3-dipolar cycloadditions of benzonitrile oxide (BNO) to the C=C and the C=N double bonds of some furyl-substituted dipolarophiles is reported.



Synthesis of 4-(Trimethylsilyl)- and 4-(Tributylstannyl)-2-azetidinones and some of their Applications to β -Lactam Chemistry

Cristina Nativi,^a Alfredo Ricci,^{a,b} and Maurizio Taddei^b
Centro di Studio CNR sulla Chimica e Struttura Composti Eterociclici^a and Dipartimento di Chimica Organica "Ugo Schiff" dell'Università^b, Via G. Capponi 9 I-50121 Firenze Italy

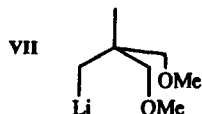


X-RAY CRYSTAL STRUCTURE AND HYDROCARBON SOLUTION BEHAVIOUR OF TETRAMERIC 2,2-BIS(METHOXYMETHYL)-1-PROPYLLITHIUM

Willem Moene, Marius Schakel, Gabriël J. M. Hoogland, Fransiscus J. J. de Kanter, Gerhard W. Klumpp*
Scheikundig Laboratorium, Vrije Universiteit, de Boelelaan 1083, 1091 HV Amsterdam, The Netherlands
 Anthony L. Spek*

Vakgroep Algemene Chemie, Afdeling Kristal- en Structuurchemie, Rijksuniversiteit Utrecht, Padualaan 8, 3584 CH Utrecht, The Netherlands

The structure of the title compound VII was elucidated by X-ray analysis.
 Variable temperature NMR-data of VII are also reported.

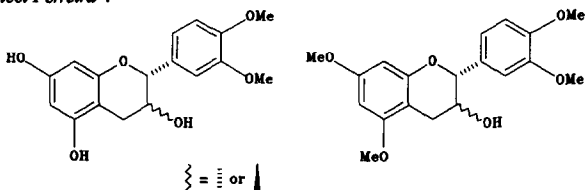


SELECTIVE O-METHYLATION OF POLYHYDROXYFLAVAN-3-OLS via BENZYL CARBONATES.

Martha S. van Dyk, Jan P. Steynberg, Petrus J. Steynberg, and Daneel Ferreira*.

Department of Chemistry, University of the Orange Free State,
 P.O. Box 339, Bloemfontein, 9300 South Africa

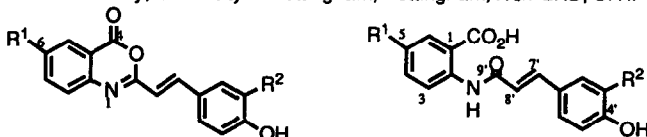
The flavan-3-ols (+)-catechin and (-)-epicatechin were selectively transformed to their 3',4'-di-O-methyl- and 5,7-di-O-methyl-ethers respectively via O-benzyloxy carbonyl derivatives.



PHYTOALEXINS OF OAT LEAVES: 4H-3,1-BENZOXAZIN-4-ONES OR AMIDES ?

Leslie Crombie and Jayshree Mistry

Department of Chemistry, University of Nottingham, Nottingham, NG7 2RD, U. K.



Synthetic evidence is presented that the major phytoalexin of oat leaves is not the 4H-3,1-benzoxazin-4-one previously reported, but the corresponding amide.