

GRAPHICAL ABSTRACTS

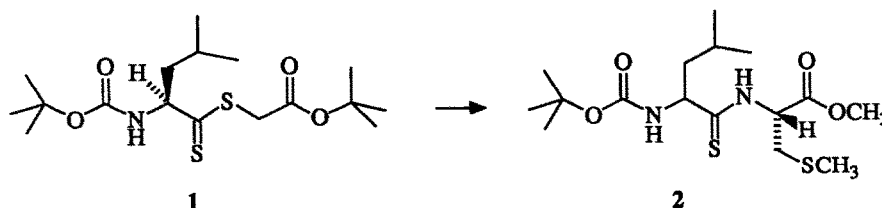
Tetrahedron, 1992, 48, 8601

Approaches to the Synthesis of Endothiopeptides: Synthesis of a Thioamide-Containing C-Terminal Bombesin Nonapeptide

Jurjus Jurayj and Mark Cushman*

Department of Medicinal Chemistry and Pharmacognosy, School of Pharmacy and Pharmacal Sciences, Purdue University, West Lafayette, Indiana 47907

During synthesis of AsnGlnTrpAlaValGlyHisLeu-ψCSNHMet-NH₂, it was found that thioacylation of Met-OCH₃ with the activated dithioester (1) resulted in the formation of diastereomeric products 2.



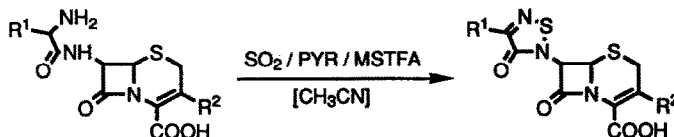
Tetrahedron, 1992, 48, 8615

A FACILE SYNTHESIS OF 3-OXO-1,2,5-THIA DIAZOLES; 7β-[3-OXO-1,2,5-THIA DIAZOL-2-YL] CEPHALOSPORINS

W. H. W. Lunn and J. K. Shadle

Lilly Research Laboratories, Eli Lilly and Company, Lilly Corporate Center, Indianapolis, IN 46285, U.S.A.

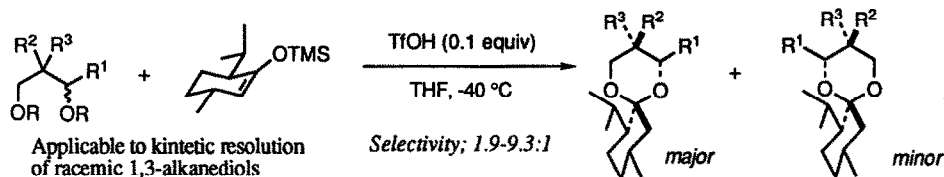
The synthesis of new 7β-[3-oxo-1,2,5-thiadiazol-2-yl] cephalosporins is described. This procedure represents a method for making 3-oxo-1,2,5-thiadiazoles under very mild conditions.



Tetrahedron, 1992, 48, 8621

ENANTIOSELECTIVE ACETALIZATION OF RACEMIC 1,3-ALKANEDIOLS WITH *l*-MENTHONE UNDER KINETICALLY CONTROLLED CONDITIONS. Toshiro Harada,* Sachi Tanaka, and Akira Oku*

Department of Chemistry, Kyoto Institute of Technology, Matsugasaki, Sakyo-ku, Kyoto 606, Japan



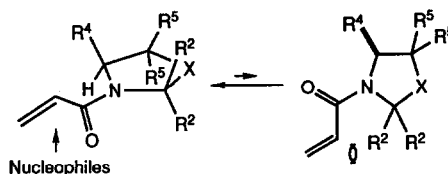
New Chiral Auxiliaries Based on Conformation Control, a C₂-Symmetric 2,2-Dimethylimidazolidine and 4-Chiral 2,2-Dialkyloxazolidines. Synthesis and Conformational Analysis of Acrylamide Derivatives

Shuji Kanemasa* and Kenjiro Onimura†

Institute of Advanced Material Study, Kyushu University, Kasugakoen, Kasuga 816, Japan

†Department of Molecular Science and Technology, Interdisciplinary Graduate School of Engineering Sciences, Kyushu University, Kasugakoen, Kasuga 816, Japan

Synthesis of new chirality-controlling auxiliaries, a C₂-symmetric 2,2-dimethylimidazolidine and 4-chiral 2,2-dialkyloxazolidines, and conformational analysis of their *N*-acryloyl derivatives are described.



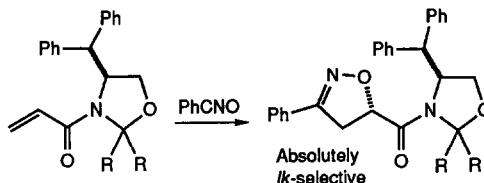
Highly *lk*-Selective Asymmetric Nitrile Oxide Cycloadditions to a C₂-Symmetric 1,3-Diacryloyl-2,2-dimethylimidazolidine and 4-Chiral 3-Acryloyl-2,2-dialkyloxazolidines

Shuji Kanemasa* and Kenjiro Onimura†

Institute of Advanced Material Study, Kyushu University, Kasugakoen, Kasuga 816, Japan

†Department of Molecular Science and Technology, Interdisciplinary Graduate School of Engineering Sciences, Kyushu University, Kasugakoen, Kasuga 816, Japan

Highly *lk*-selective 1,3-dipolar cycloadditions of benzonitrile oxide to the *N*-acryloyl derivatives of a C₂-symmetric 2,2-dimethylimidazolidine or 4-chiral 2,2-dialkyloxazolidines are described.

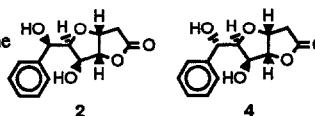


Stereocontrolled Syntheses of (-)-Goniofufurone and (-)-8-*epi*-Goniofufurone

Tony K. M. Shing,* Hon-Chung Tsui, and Zhao-Hui Zhou

Department of Chemistry, The Chinese University of Hong Kong, Shatin, Hong Kong

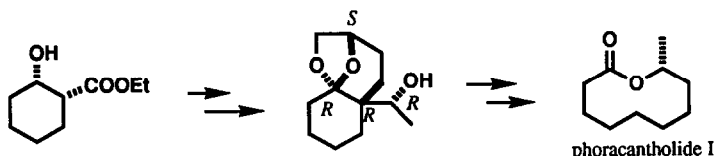
The absolute configurations of natural goniofufurone and 8-*epi*-goniofufurone are shown to be 2 and 4 respectively by unambiguous syntheses of their enantiomers from *D*-glycero-*D*-gulo-heptono- γ -lactone involving an intramolecular Michael reaction as the key step.



SYNTHESIS OF (R)-(-)-PHORACANTHOLIDE I BASED ON STEREOCONTROLLED CLEAVAGE OF INTERNAL ACETAL

Shinji Nagumo, Hiroshi Suemune, and Kiyoshi Sakai*

Faculty of Pharmaceutical Sciences, Kyushu University, Fukuoka 812, Japan

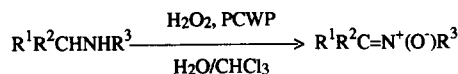


ONE-FLASK TRANSFORMATION OF SECONDARY AMINES TO NITRONES BY OXIDATION WITH HYDROGEN PEROXIDE MEDIATED BY TRISCETYLPYRIDINIUM TETRAKIS OXODIPEROXOTUNGSTO-PHOSPHATE (PCWP). SOME MECHANISTIC CONSIDERATIONS.

Francesco P. Ballistreri, Ugo Chiacchio, Antonio Rescifina, Gaetano A. Tomaselli* and Rosa M. Toscano

Dipartimento di Scienze Chimiche, University of Catania, V.le A. Doria 6, 95125 Catania, Italy

Secondary amines are catalytically oxidized to nitrones by hydrogen peroxide in the presence of W(VI) peroxopolyoxo complex.



Sarasinosides D-G: Four new Triterpenoid Saponins from the Sponge *Asteropus sarasinus*

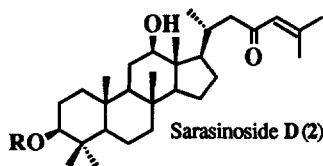
Alfonso Espada¹, Carlos Jiménez², Jaime Rodríguez¹, Phillip Crews^{3*} and Ricardo Riguera^{1*}

¹Depart. de Química Orgánica, Fac. de Química, Univ. de Santiago de Compostela, Santiago de Compostela. 15706. Spain

²Depart. de Química Fundamental e Industrial, Fac. de Ciencias, Univ. da Coruña, A Coruña. 15071. Spain

³Department of Chemistry and Biochemistry, University of California, Santa Cruz, California 95064, USA.

Four new triterpenoid saponins (D-G) have been isolated from the sponge *Asteropus sarasinus*. They have identical oligosaccharide chain and different aglycon moieties.



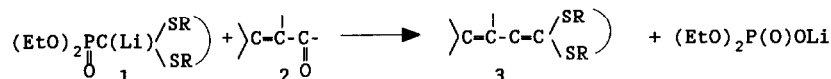
R = β -D-Glu (1 \rightarrow 2) β -D-Xyl (1 \rightarrow 6) β -D-2NAc-Glu (1 \rightarrow 2)

β -D-Xyl (4 \rightarrow 1) β -D-2NAc-Gal

DIVERSE REACTIVITY OF α -CARBANIONS DERIVED FROM α -PHOSPHORYL DITHIOACETALS AND α -PHOSPHORYL SULPHIDES TOWARDS α, β -UNSATURATED CARBONYL COMPOUNDS. A GENERAL SYNTHESIS OF CONJUGATED KETENE DITHIOACETALS.

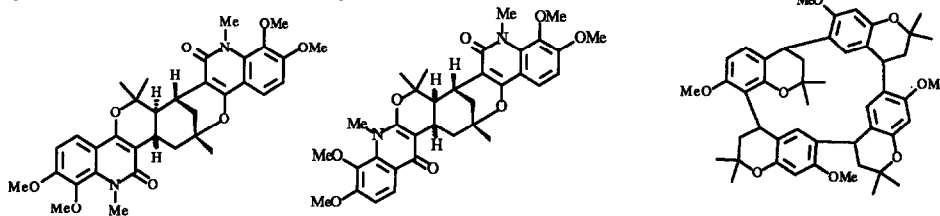
M. Mikołajczyk and P. Bałczewski, Centre of Molecular and Macromolecular Studies, PAS, 90-363 Łódź, Sienkiewicza 112, Poland

Treatment of 1-Li with α, β -unsaturated carbonyl compounds 2 affords conjugated ketene dithioacetals 3. The reaction course (1,2- or 1,4-addition and the rearrangements of the 1,2- and 1,4-adducts) was determined by ^{31}P NMR spectroscopy.



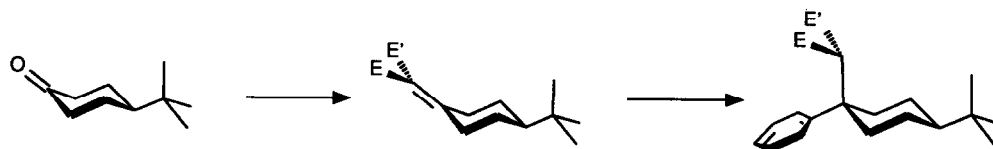
SYNTHESIS OF VEPRISINE DIMERS AND THE FORMATION OF A NOVEL TETRAMER FROM PRECOCENE I

Bonaventure T. Ngadjui, Johnson F. Ayafor, A. E. Ngo Bilon, B. Lucas Sondengam
Department of Organic Chemistry, University of Yaounde, BP 812, Yaounde, Cameroon
Joseph D. Connolly and David S. Rycroft
Department of Chemistry, University of Glasgow, Glasgow G12 8QQ, Scotland



The Stereoselective Addition of Organometallic Reagents to Electron-Deficient Alkylidenecyclohexanes; Alternative Linkages for Cholaphane Synthesis

Anthony P. Davis*, Thomas J. Egan, and Michael G. Orchard, Department of Chemistry, Trinity College, Dublin 2, Ireland.
Desmond Cunningham and Patrick McArdle, Department of Chemistry, University College, Galway, Ireland.



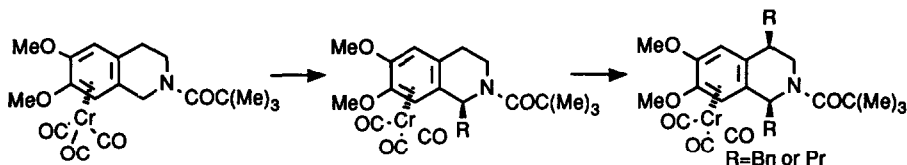
E, E' = (CN) $_2$; (CO $_2$) $_2$ CMe $_2$; CN, CO $_2$ Et.

Tetrahedron, 1992, 48, 8739

The anodic oxidation of 1,4-dihydro-6,7-dimethoxy-4-(3,4-dimethoxybenzyl)-2-methylisoquinolin-3(2H)-one and attempts to synthesise

2-acyl-4-benzyl-1,2,3,4-tetrahydroisoquinolines through the C-4 alkylation of tricarbonyl- η^6 -[1,2,3,4-tetrahydroisoquinoline] chromium (0) complexes

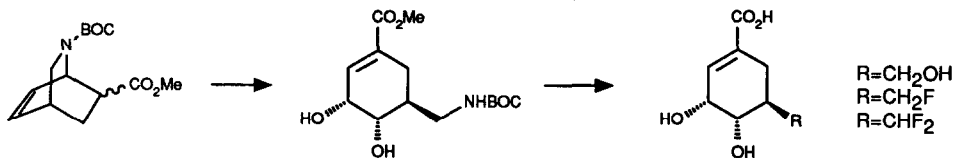
Malcolm Sainsbury (School of Chemistry, University of Bath, Claverton Down, Bath BA2 7AY) and Richard S.Todd (British-Biotechnology Ltd., Watlington Rd., Cowley, Oxford OX4 5LY).



Tetrahedron, 1992, 48, 8751

SYNTHESIS OF 5-HOMOSHIKIMIC ACID AND SOME FLUORINATED DERIVATIVES AS POTENTIAL INHIBITORS OF 5-ENOLPYRUVYLSHIKIMATE-3-PHOSPHATE SYNTHASE

Malcolm M. Campbell¹, Mary F. Mahon¹, Malcolm Sainsbury¹, Philip A. Searle¹, and G.M.Davies²; ¹School of Chemistry, University of Bath, Claverton Down, Bath BA2 7AY, ²ICI Pharmaceuticals, Mereside, Macclesfield, Cheshire SK10 4TG U.K

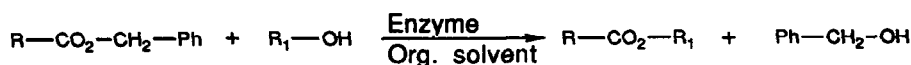


Tetrahedron, 1992, 48, 8775

A CONVENIENT METHOD FOR ENZYMIC BENZYL-ALKYL TRANSESTERIFICATION UNDER MILD NEUTRAL CONDITIONS

Arie L. Gutman,* Eleonora Shkolnik and Michal Shapira
Department of Chemistry, Technion - Israel Institute of Technology, Haifa 32000, Israel

Lipases from *Candida cylindracea* and from *Pseudomonas fluorescens* catalyse the benzyl to alkyl transesterification in organic solvents under mild conditions in nearly quantitative yields.

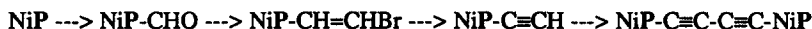


PORPHYRIN DIMERS LINKED BY CONJUGATED BUTADIYNES

Dennis P. Arnold* and Lisa J. Nitschinsk

Centre for Instrumental and Developmental Chemistry, Queensland University of Technology, Brisbane, Queensland 4001, Australia.

1,4-Bis(porphyrinyl)-1,3-butadiynes have been prepared from *meso*- and β -substituted nickel(II) porphyrins. Visible spectra of the two types differ markedly. A novel 2,5-bis(porphyrinyl)furan was prepared.



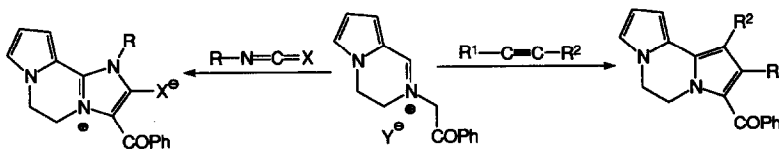
P = octaethyl-, tetraphenyl-, or heptaethylporphyrin

BRIDGED 2,2'-BIAZOLE DERIVATIVES BY 1,3-DIPOLAR CYCLOADDITION

Maria S. de Pablo, Teresa Gandásegui, Juan J. Vaquero, José L. García Navío and Julio Alvarez Builla*

Departamento de Química Orgánica. Universidad de Alcalá. Alcalá de Henares. Madrid.Spain.

Azomethine ylides derived from 3,4-dihydropyrrolo[1,2-a]pyrazinium salts undergo 1,3-dipolar cycloaddition reactions to yield 5,6-dihydrodipyrrolo[1,2-a:2',1'-c]pyrazine and 5,6-dihydroimidazo[1,2-a]pyrrolo[2,1-c]pyrazin-4-inium ring systems.

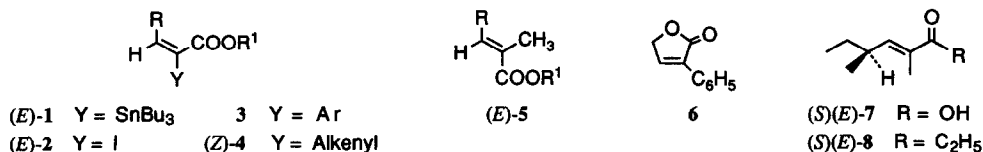


NEW STEREoselective SYNTHESIS OF STEREO- DEFINED 2-SUBSTITUTED ALKYL 2-ALKENOATES AND THEIR APPLICATION

Renzo Rossi*, Adriano Carpita and Paolo Cossi.

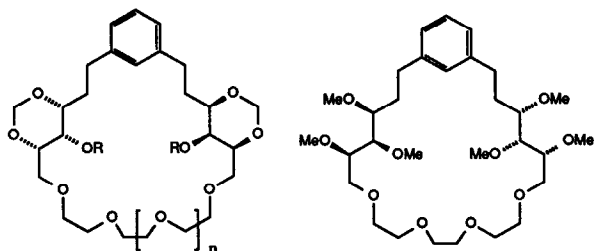
Dipartimento di Chimica e Chimica industriale - University of Pisa. - Via Risorgimento 35, I-56126 Pisa, Italy.

Stannyl esters of general formula (E)-1 have been used as precursors to compounds (E)-2, 3, (Z)-4, (E)-5, 6, (S)(E)-7 and (S)(E)-8.



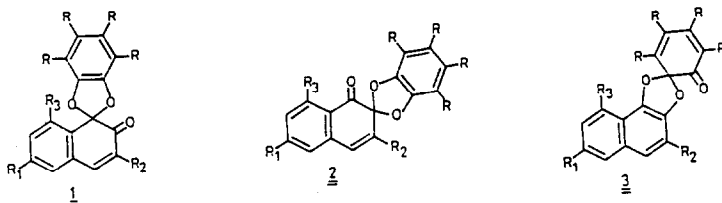
SYNTHESIS OF CARBOHYDRATE CONTAINING CROWN ETHERS AND THEIR APPLICATION AS CATALYSTS IN ASYMMETRIC MICHAEL ADDITIONS

Dave A. H. van Maarschalkerwaart, Nico P. Willard, Upendra K. Pandit.
Laboratory of Organic Chemistry, University of Amsterdam, Nieuwe Achtergracht 129, 1018 WS Amsterdam.



Photoisomerization of Spironaphthalenones and its Mechanism.

Tirumalai R. Kasturi*, Asish B. Mandal, Ganesha K. B. Prasad and Gonibella J. Raju; Department of Organic Chemistry, Indian Institute of Science, Bangalore 560 012, INDIA.



The photoisomerization of spironaphthalenones 1 & 2, probably through the intermediacy of 3, has been demonstrated.

α -HYDROXYCYCLOBUTANE REARRANGEMENT FOLLOWED BY RETROALDOL CLEAVAGE : A NOVEL AND POWERFUL TECHNOLOGY FOR THE STEREOCONTROLLED CONSTRUCTION OF CARBOCYCLIC SYSTEMS. AN EASY ACCESS TO ANGULARLY FUNCTIONALISED TRANS-FUSED CYCLOHEPTANOIDS

Rupak Chakraborty, Manas K. Basu and Brindaban C. Ranu*
Department of Organic Chemistry, Indian Association for the Cultivation of Science, Jadavpur, Calcutta - 700 032, India.

