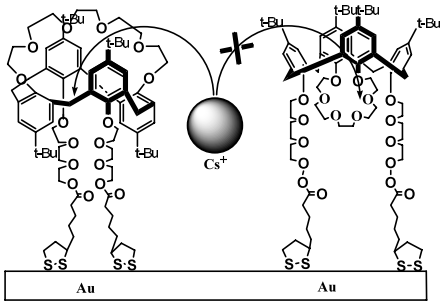
Self-assembled monolayers of different conformers of *p-tert*-butylcalix[4]crown-6 derivatives and their metal cation recognition properties

Tetrahedron Letters 44 (2003) 9079

Sheng Zhang and Luis Echegoyen*

Department of Chemistry, Clemson University, Clemson, SC 29634, USA

Two isomers of *p-tert*-butylcalix[4]crown-6 derivatives form stable self-assembled monolayers (SAMs) by taking advantage of the adsorption of bis-thioctic ester on gold electrodes, and their Cs^+ recognition is completely dependent on the conformational orientation of the compounds.

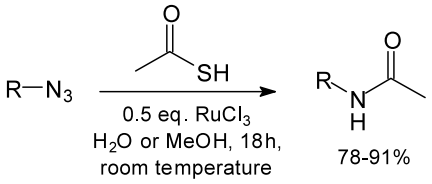


$RuCl_3$-promoted amide formation from azides and thioacids

Tetrahedron Letters 44 (2003) 9083

Fabio Fazio and Chi-Huey Wong*

Department of Chemistry and Skaggs Institute for Chemical Biology, The Scripps Research Institute, 10550 North Torrey Pines Road, La Jolla, CA 92037, USA



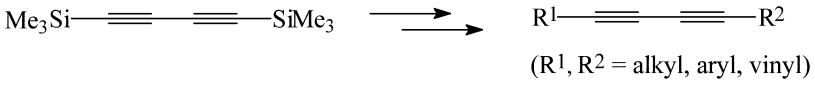
A straightforward method for the synthesis of unsymmetrically substituted 1,3-diynes

Tetrahedron Letters 44 (2003) 9087

Vito Fiandanese,* Daniela Bottalico, Giuseppe Marchese and Angela Punzi

Dipartimento di Chimica, Università di Bari, via E. Orabona 4, 70126 Bari, Italy

A variety of conjugated diynes have been synthesized starting from the readily available 1,4-bis(trimethylsilyl)-1,3-butadiyne.



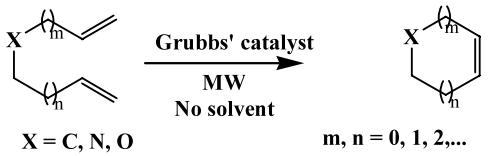
Microwave-assisted ruthenium-catalyzed olefin metathesis under solvent-free conditions

Tetrahedron Letters 44 (2003) 9091

Giang Vo Thanh* and André Loupy

Laboratoire des Réactions Sélectives sur Supports, ICMMO, CNRS UMR 8615, Bâtiment 410, Université Paris-Sud, 91405 Orsay Cedex, France

An efficient method for ring-closing metathesis under solvent-free conditions and by microwave activation was established. Non-thermal microwave specific effects were evident.

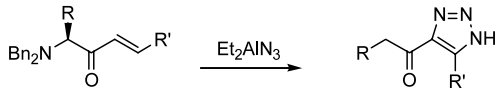


Tetrahedron Letters 44 (2003) 9095

Unexpected 1,2,3-triazole formation in the reaction of diethylaluminum azide with α′-amino-α,β-unsaturated ketones

Ilaria Adamo, Fabio Benedetti,* Federico Berti, Giorgio Nardin and Stefano Norbedo

Dipartimento di Scienze Chimiche, Università di Trieste, via Giorgieri 1, 34127 Trieste, Italy

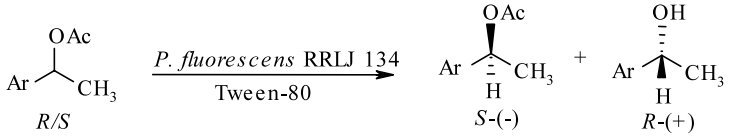


Tetrahedron Letters 44 (2003) 9099

Resolution of racemic 1-arylethyl acetates by *Pseudomonas fluorescens* in the presence of a surfactant

U. Bora,[a] C. J. Saikia,[a] A. Chetia,[a] A. K. Mishra,[b] B. S. D. Kumar[b] and R. C. Boruah[a,*]

[a]*Medicinal Chemistry Division, Regional Research Laboratory, Jorhat 785006, India*
[b]*Soil Microbiology Division, Regional Research Laboratory, Jorhat 785006, India*

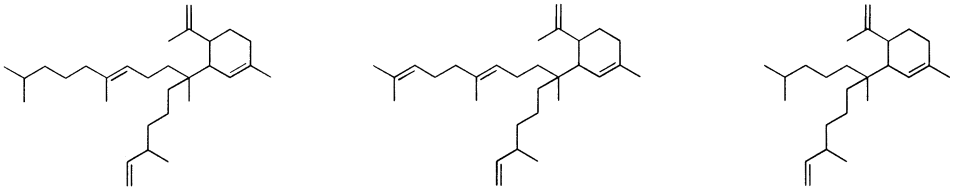


Tetrahedron Letters 44 (2003) 9103

Novel monocyclic sester- and triterpenoids from the marine diatom, *Rhizosolenia setigera*

Simon T. Belt,[a,*] Guillaume Massé,[a,b] W. Guy Allard,[a] Jean-Michel Robert[b] and Steven J. Rowland[a]

[a]*Petroleum and Environmental Geochemistry Group, School of Environmental Sciences, University of Plymouth, Drake Circus, Plymouth PL4 8AA, Devon, UK*
[b]*ISOMer, Faculté des Sciences et des Techniques, Université de Nantes, 2 rue de la Houssinière, 44027 Nantes Cedex 3, France*



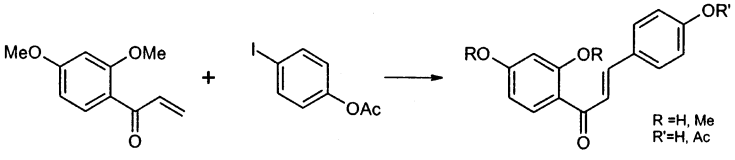
Tetrahedron Letters 44 (2003) 9107

A new synthesis of flavonoids via Heck reaction

Armandodoriano Bianco, Claudia Cavarischia,* Angela Farina, Marcella Guiso and Carolina Marra

Dipartimento di Chimica Università 'La Sapienza', Istituto di Chimica Biomolecolare del CNR, Piazzale Aldo Moro 5, I-00185 Roma, Italy

Several naturally occurring flavonoids have been synthesised following a new proposed method based on the use of the Heck reaction. The key step involves the coupling of an aryl vinyl ketone with an aryl iodide. This procedure affords the flavonoid moiety in a single step.



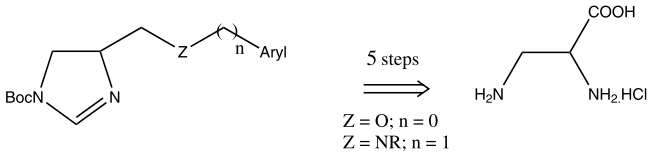
Tetrahedron Letters 44 (2003) 9111

Synthesis of C5-substituted imidazolines

Nathalie Defacqz,[a] Van Tran-Trieu,[a] Alex Cordi[b] and Jacqueline Marchand-Brynaert[a,*]

[a]*Université catholique de Louvain, Unité de Chimie Organique et Médicinale, Bâtiment Lavoisier, place Louis Pasteur 1, B-1348 Louvain-la-Neuve, Belgium*

[b]*Institut de Recherches Servier, 11, rue des Moulineaux, F-92150 Suresnes, France*

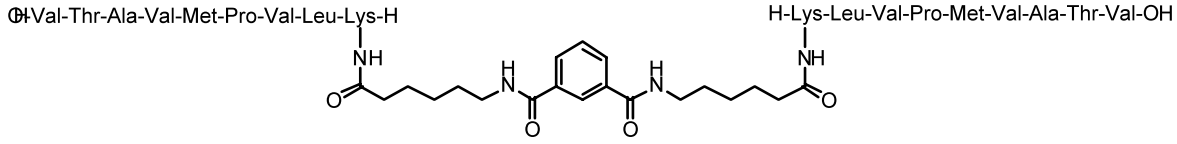


Tetrahedron Letters 44 (2003) 9115

Solid phase synthesis of peptide dimers and trimers linked through an N-terminal lysine residue

M. Arfan Ashraf, Jatinder K. Notta and John S. Snaith*

School of Chemistry, The University of Birmingham, Edgbaston, Birmingham B15 2TT, UK

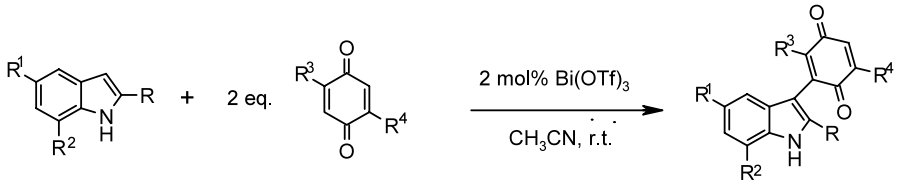


Tetrahedron Letters 44 (2003) 9121

$Bi(OTf)_3$-catalyzed conjugate addition of indoles to *p*-quinones: a facile synthesis of 3-indolyl quinones

J. S. Yadav,* B. V. S. Reddy and T. Swamy

Division of Organic Chemistry, Indian Institute of Chemical Technology, Hyderabad 500 007, India



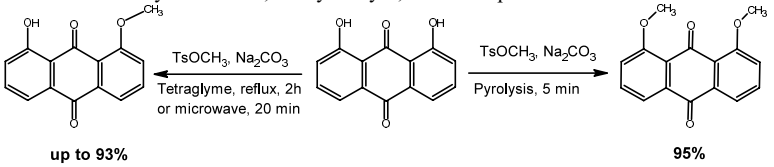
Tetrahedron Letters 44 (2003) 9125

Methylation of 1,8-dihydroxy-9,10-anthraquinone with and without use of solvent-free technique

Grigoriy A. Sereda* and David G. Akhvlediani

University of South Dakota, Department of Chemistry, 414 E. Clark Street, Vermillion, SD 57069, USA

A convenient and environmentally friendly solvent-free procedure has been developed for dimethylation of 1,8-dihydroxy-9,10-anthraquinone with excellent yield. A highly selective monomethylation of 1,8-dihydroxy-9,10-anthraquinone in refluxing tetraglyme makes monomethylated *peri*-dihydroxy-9,10-anthraquinones easily available. Alternatively, irradiation in a microwave oven has been used for the solvent-free monomethylation of 1,8-dihydroxy-9,10-anthraquinone.

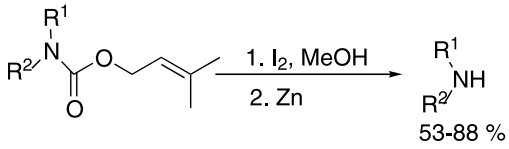


One-pot selective cleavage of prenyl carbamates using iodine in methanol followed by zinc

Tetrahedron Letters 44 (2003) 9127

Jean-Michel Vatèle*

Laboratoire de Chimie Organique 1, UMR 5181 CNRS, Université Claude Bernard, CPE, 43 Boulevard du 11 Novembre 1918, 69622 Villeurbanne, France

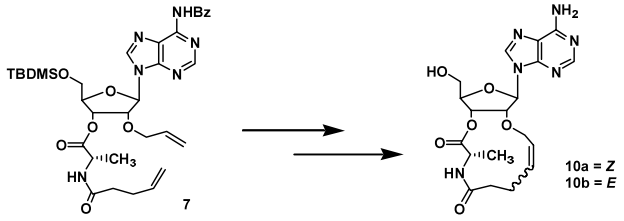


Synthesis of 2′-*O*,3′-*O* bicyclic adenosine analogues using ring closing metathesis

Tetrahedron Letters 44 (2003) 9131

Patricia Busca, Mélanie Etheve-Quelquejeu* and Jean-Marc Valéry

Structure et Fonction de Molécules Bioactives-UMR CNRS 7613-Equipe « Chimie des Glucides », Université Pierre et Marie Curie, 4 place Jussieu, case 179, 75252 Paris Cedex 05, France



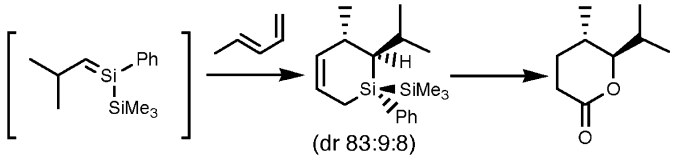
Silenes as novel synthetic reagents: synthesis of diols and lactones from simple alkyldienes

Tetrahedron Letters 44 (2003) 9135

Malcolm B. Berry,[b] Russell J. Griffiths,[a] Mahesh J. Sanganee,[b] Patrick G. Steel[a,*] and Daniel K. Whelligan[a]

[a]*Department of Chemistry, University of Durham, Science Laboratories, South Road Durham DH1 3LE, UK*

[b]*Synthetic Chemistry, GlaxoSmithKline, Gunnels Wood Road, Stevenage, Herts SG1 2NY, UK*



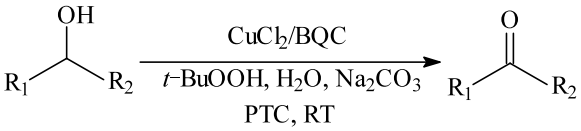
Solvent-free oxidation of alcohols by *t*-butyl hydroperoxide catalyzed by water-soluble copper complex

Tetrahedron Letters 44 (2003) 9139

Gabriel Ferguson and Abdelaziz Nait Ajjou*

Department of Chemistry and Biochemistry, University of Moncton, Moncton, New Brunswick, Canada E1A 3E9

The catalytic system composed of $CuCl_2$ and 2,2′-biquinoline-4,4′-dicarboxylic acid dipotassium salt (BQC), was found to be highly efficient for the selective oxidation of secondary benzylic, allylic and propargylic alcohols to the corresponding ketones, with aqueous *t*-butyl hydroperoxide under phase-transfer catalysis conditions. The catalytic system is stable and can be recycled and reused several times without loss of activity.



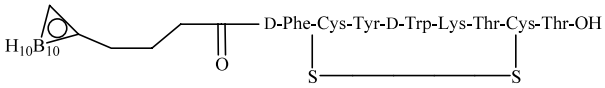
Tetrahedron Letters 44 (2003) 9143

Synthesis of a Tyr^3-octreotate conjugated *closo*-carborane [$HC_2B_{10}H_{10}$]: a potential compound for boron neutron capture therapy

Esther Schirrmacher,[a] Ralf Schirrmacher,[a,*] Carmen Beck,[a]
Walter Mier,[b] Norbert Trautman[a] and Frank Rösch[a]

[a]*Institute of Nuclear Chemistry, University of Mainz, D-55177 Mainz, Germany*
[b]*Universitätsklinikum Heidelberg, Department of Nuclear Medicine, D-69120 Heidelberg, Germany*

The synthesis of a novel Tyr^3-octreotate conjugated *closo*-carborane as a potential compound for boron neutron capture therapy (BNCT) is reported.

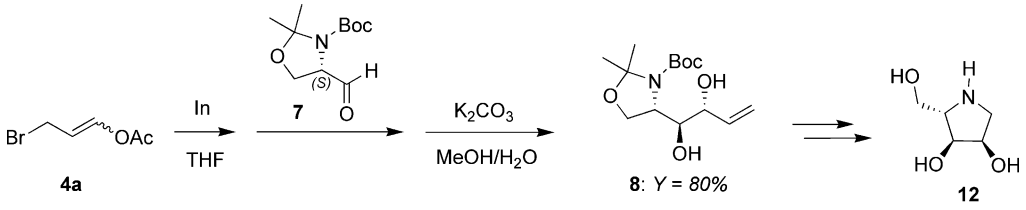


Tetrahedron Letters 44 (2003) 9147

Indium-mediated coupling of 3-bromopropenyl acetate with (*S*)-Garner aldehyde: a route to 1,4-dideoxy-1,4-L-iminoribitol

Marco Lombardo,* Sebastiano Licciulli and Claudio Trombini*

Dipartimento di Chimica 'G. Ciamician', Università di Bologna, via Selmi 2, I-40126 Bologna, Italy

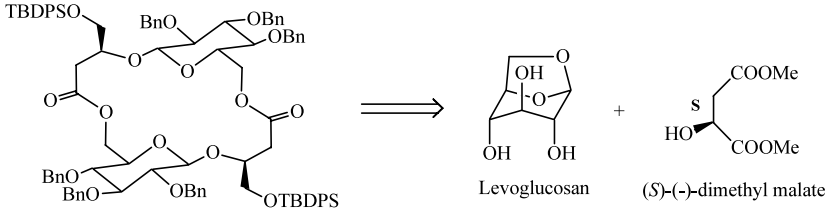


Tetrahedron Letters 44 (2003) 9151

A short access to the macrocyclic core of cycloviracin and glucolipsin

Vincent Bailliez, Renata M. de Figueiredo, Alain Olesker and Jeannine Cleophax*

Institut de Chimie des Substances Naturelles du CNRS, Avenue de la terrasse, 91198 Gif-sur-Yvette, France

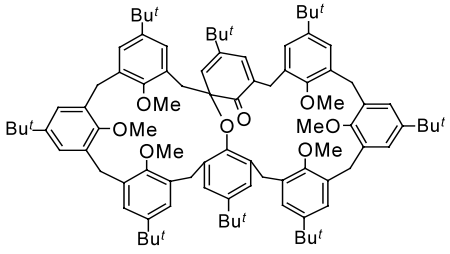


Tetrahedron Letters 44 (2003) 9155

Synthesis of the first examples of *p*-bromodienone and transannular spirodienone calixarene derivatives

Carmine Gaeta, Marco Martino and Placido Neri*

Dipartimento di Chimica, Università di Salerno, Via S. Allende 43, I-84081 Baronissi (Salerno), Italy

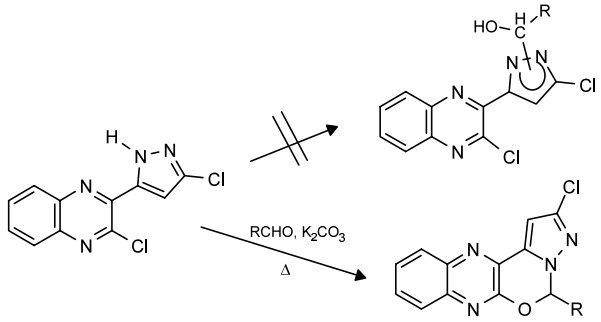


Tetrahedron Letters 44 (2003) 9161

Pyrazolo[2′,3′:3,4][1,3]oxazino[5,6-*b*]quinoxaline, a novel tetracyclic ring system

Christian Banekovich,[a] Kurt Mereiter[b] and Barbara Matuszczak[a,*]

[a]*Institute of Pharmacy, Department of Pharmaceutical Chemistry, University of Innsbruck, Innrain 52a, A-6020 Innsbruck, Austria*
[b]*Department of Chemistry, Vienna University of Technology, Getreidemarkt 9, A-1060 Vienna, Austria*



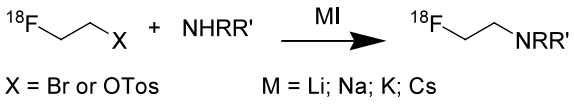
Tetrahedron Letters 44 (2003) 9165

Efficient alkali iodide promoted ^{18}F-fluoroethylations with 2-[^{18}F]-fluoroethyl tosylate and 1-bromo-2-[^{18}F]fluoroethane

Andreas Bauman, Markus Piel,* Ralf Schirrmacher and Frank Rösch

Institute of Nuclear Chemistry, University of Mainz, Fritz-Strassmann-Weg 2, D-55128 Mainz, Germany

The radiochemical yields of ^{18}F-fluoroalkylations via 2-[^{18}F]fluoroethyl tosylate and 1-bromo-2-[^{18}F]fluoroethane can be significantly improved by addition of alkali iodides to the precursor.



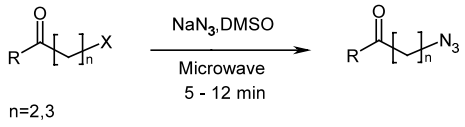
Tetrahedron Letters 44 (2003) 9169

A simple and fast procedure for efficient synthesis of β- and γ-azidoarylketones

Pradeep N. D. Singh, Sivaramakrishnan Muthukrishnan, Rajesh S. Murthy, Rodney F. Klima, Sarah M. Mandel, Michael Hawk, Nina Yarbrough and Anna D. Gudmundsdóttir*

Department of Chemistry, University of Cincinnati, Cincinnati, OH 45221-0172, USA

A simple and efficient method for preparing β- and γ-azido substituted arylketones has been achieved by short microwave irradiation of the corresponding halo arylketones and sodium azide in DMSO.

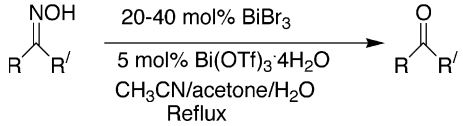


Tetrahedron Letters 44 (2003) 9173

Bismuth compounds in organic synthesis. Deprotection of ketoximes using bismuth bromide-bismuth triflate

Joshua N. Arnold, Patrick D. Hayes, Robert L. Kohaus and Ram S. Mohan*

Laboratory for Environment Friendly Organic Synthesis, Department of Chemistry, Illinois Wesleyan University, Bloomington, IL 61701, USA



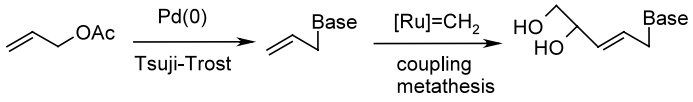
Tetrahedron Letters 44 (2003) 9177

A new route to acyclic nucleosides via palladium-mediated allylic alkylation and cross-metathesis

Franck Amblard,[a] Steven P. Nolan,[b] Isabelle Gillaizeau[a] and Luigi A. Agrofoglio[a,*]

[a]*Institut de Chimie Organique et Analytique, UMR CNRS 6005, Université d'Orléans, 45067 Orléans, France*
[b]*Department of Chemistry, University of New Orleans, New Orleans, LA 70148 USA*

An efficient and useful method for the syntheses of acyclic nucleosides via a combination of palladium-catalyzed allylic alkylation and ruthenium-based cross metathesis is described. This approach provides a concise, efficient and reliable route to new nucleoside analogues.

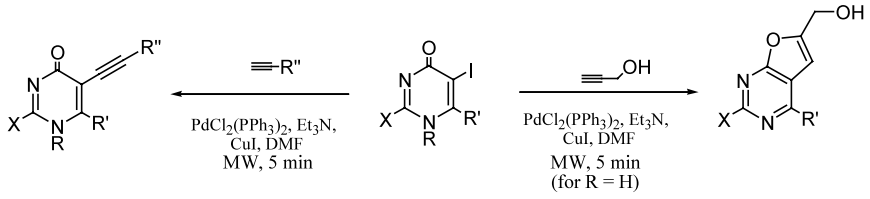


Tetrahedron Letters 44 (2003) 9181

Microwave-enhanced Sonogashira coupling reaction of substituted pyrimidinones and pyrimidine nucleosides

Elena Petricci, Marco Radi, Federico Corelli* and Maurizio Botta*

Dipartimento Farmaco Chimico Tecnologico, Università degli Studi di Siena, Via Aldo Moro, 53100 Siena, Italy

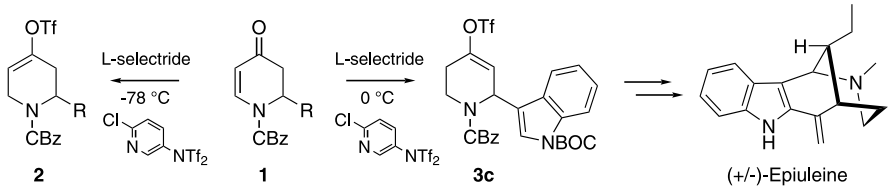


Tetrahedron Letters 44 (2003) 9185

Thermodynamic equilibration of dihydropyridone enolates: application to the total synthesis of (+/−)-epiuleine

Edward S. Tasber and Robert M. Garbaccio*

Department of Medicinal Chemistry, Merck Research Laboratories, West Point, PA 19486, USA

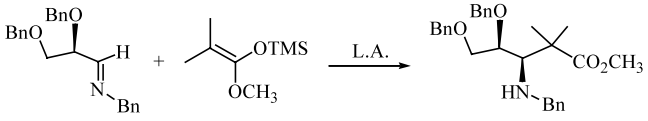


Tetrahedron Letters 44 (2003) 9189

Study of the Lewis acid-promoted addition of silylenol ethers to imines derived from glyceraldehyde

Ramón Badorrey, Carlos Cativiela, María D. Díaz-de-Villegas* and José A. Gálvez*

Departamento de Química Orgánica, Facultad de Ciencias-Instituto de Ciencia de Materiales de Aragón, Universidad de Zaragoza-CSIC, E-50009 Zaragoza, Spain

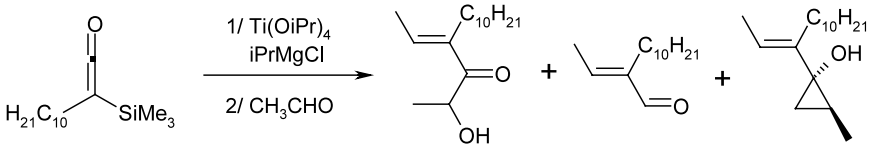


Tetrahedron Letters 44 (2003) 9193

Silylketenes under Kulinkovich conditions: alkene/ketene exchange versus nucleophilic addition. Application to the stereoselective preparation of vinylcyclopropanols

Eric Raponi and Jean-Marc Pons*

Laboratoire de Réactivité en Synthèse Organique (RéSO), UMR-CNRS 6516, Faculté des Sciences et Techniques de Saint-Jérôme, 13397 Marseille Cedex 20, France

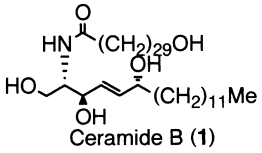


Tetrahedron Letters 44 (2003) 9197

Synthesis and stereochemistry of ceramide B, (2*S*,3*R*,4*E*,6*R*)-*N*-(30-hydroxytriacontanoyl)-6-hydroxy-4-sphingenine, a new ceramide in human epidermis

Kenji Mori* and Yui Masuda

Glycosphingolipid Synthesis Group, Laboratory for Immune Regulation, RIKEN Research Center for Allergy and Immunology, c/o Seikagaku Corporation, Tateno 3-1253, Higashiyamato-shi, Tokyo 207-0021, Japan



The structure and stereochemistry of ceramide B, a new ceramide in human stratum corneum, was established as (2*R*,3*R*,4*E*,6*R*)-**1** by its synthesis and ^{1}H NMR analysis.

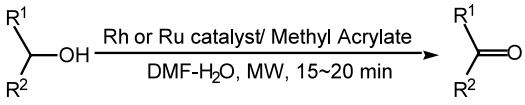
Tetrahedron Letters 44 (2003) 9201

Hydrogen transfer type oxidation of alcohols by rhodium and ruthenium catalyst under microwave irradiation

Masaaki Takahashi, Koichiro Oshima and Seijiro Matsubara*

Department of Material Chemistry, Graduate School of Engineering, Kyoto University, Kyoutodaigaku-katsura, Nishikyo, Kyoto 615-8510, Japan

Hydrogen transfer type oxidation of alcohols were performed by transition metal catalyst and α,β-unsaturated carbonyl compound under microwave irradiation.



Tetrahedron Letters 44 (2003) 9205

Highly efficient esterification of carboxylic acids with alcohols by montmorillonite-enwrapped titanium as a heterogeneous acid catalyst

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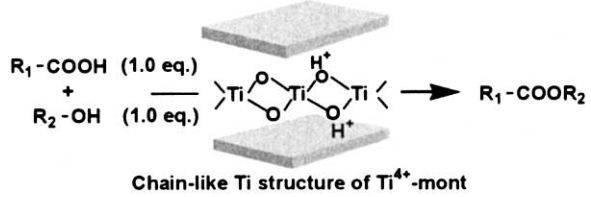

Tetrahedron Letters 44 (2003) 9209

A convenient method for asymmetric alkylation of glycine imine esters using solid supports

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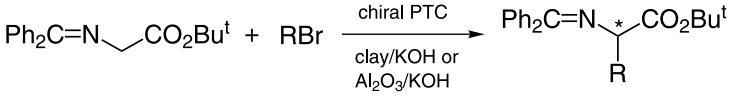

Tetrahedron Letters 44 (2003) 9213

Synthesis of new conformationally rigid paramagnetic α-amino acids

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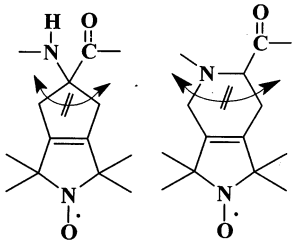

Tetrahedron Letters 44 (2003) 9219

Enantioselective total synthesis of cineromycin B

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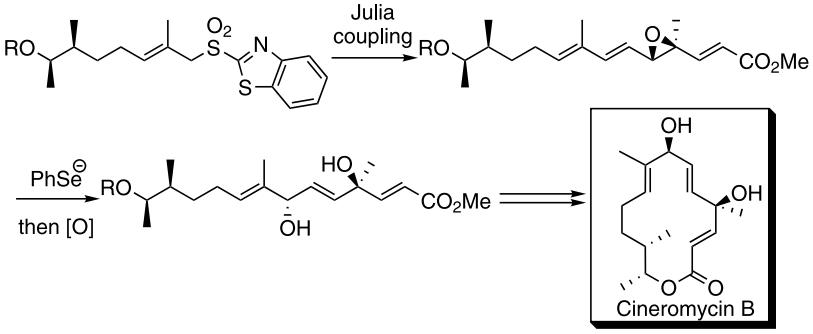
Department of Applied Biological Chemistry, Graduate School of Agricultural and Life Sciences, The University of Tokyo, 1-1-1 Yayoi Bunkyo-ku, Tokyo 113-8657, Japan



Tetrahedron Letters 44 (2003) 9223

Synthesis of methyl orange using ionic liquids

Danette L. Astolfi and Francis C. Mayville, Jr.*

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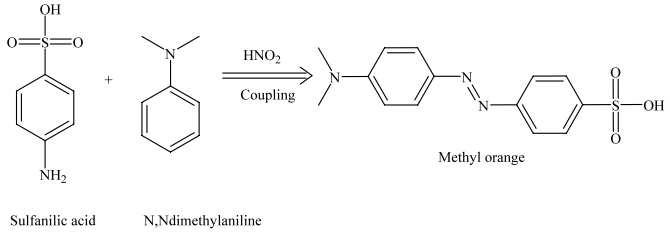
Methyl orange was prepared using two new 1-methyl-3-hexylimidazolium derivatives.



Tetrahedron Letters 44 (2003) 9225

Catalytic enantioselective epoxidation with arabinose-derived uloses containing tunable steric sensors

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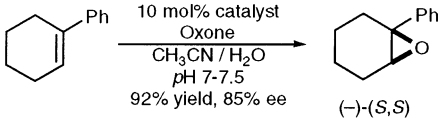
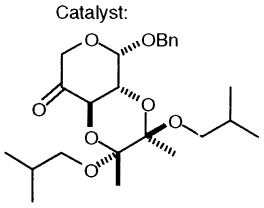
Readily available arabinose-derived 4-uloses, containing a tunable butane-2,3-diacetal as the steric sensor, displayed increasing enantioselectivity (up to 93% ee) with the size of the acetal alkyl group in catalytic asymmetric epoxidation of *trans*-disubstituted and trisubstituted alkenes.





Tetrahedron Letters 44 (2003) 9229

Oxidation of alkanes catalyzed by manganese(III)porphyrin in an ionic liquid at room temperature

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Efficient oxidation of alkanes is obtained by using an electron-deficient manganese(III) porphyrin catalyst in combination with iodobenzene diacetate in a room temperature ionic liquid; a high-valent manganese-oxo porphyrin complex (Mn^{V}=O) was considered as a reactive oxidation intermediate.