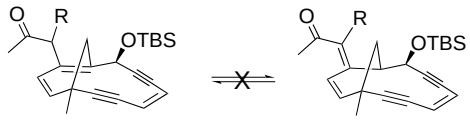
Evaluation of alkene isomerization as a trigger for enediyne activation

Tetrahedron Letters 43 (2002) 541

M. F. Semmelhack,* Richmond Sarpong, Jeffrey Bergman and Douglas M. Ho

Department of Chemistry, Princeton University, Princeton, NJ 08544, USA

A proposed triggering mechanism for enediyne activation via alkene isomerization from a bridgehead *endo* position to an *exo* position was tested.

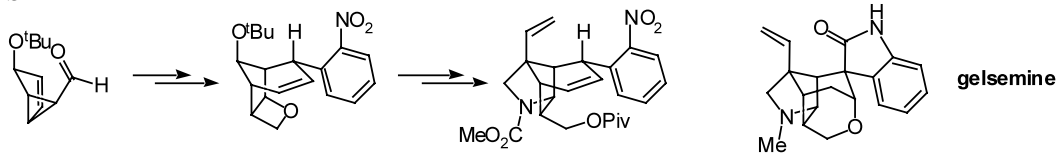


The synthesis of a key intermediate en route to gelsemine: a program based on intramolecular displacement of the carbon–oxygen bond of a strategic oxetane

Tetrahedron Letters 43 (2002) 545

Fay W. Ng,[a] Hong Lin,[b] Qiang Tan[b] and Samuel J. Danishefsky[a,b,*]

[a]*Department of Chemistry, Havemeyer Hall, Columbia University, New York, NY 10027, USA*
[b]*Laboratory for Bioorganic Chemistry, Sloan-Kettering Institute for Cancer Research, 1275 York Avenue, New York, NY 10021, USA*

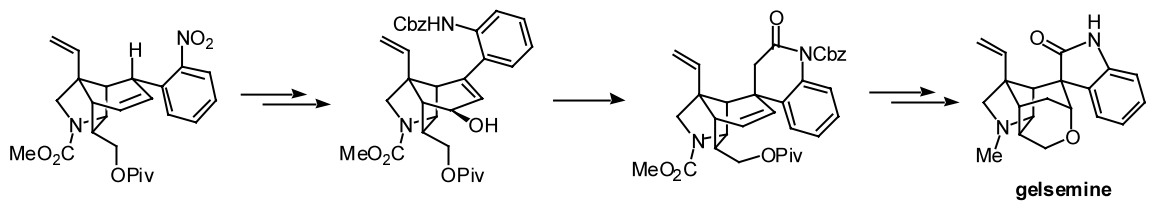


The synthesis of (±)-gelsemine

Tetrahedron Letters 43 (2002) 549

Hong Lin,[a] Fay W. Ng[b] and Samuel J. Danishefsky[a,b,*]

[a]*Laboratory for Bioorganic Chemistry, Sloan-Kettering Institute for Cancer Research, 1275 York Avenue, New York, NY 10021, USA*
[b]*Department of Chemistry, Havemeyer Hall, Columbia University, New York, NY 10027, USA*



Synthesis of bifunctionalized nitroxyls via intramolecular epoxide ring opening

Tetrahedron Letters 43 (2002) 553

Olga A. Ozhogina*

Department of Biochemistry & Molecular Biology, The University of Chicago, Chicago, IL 60637, USA

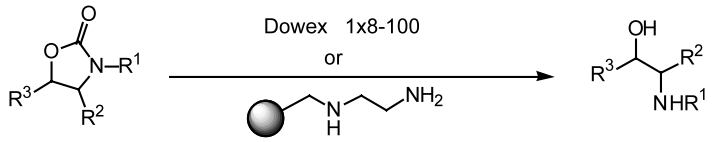
The syntheses of nitroxyl oxirane and further functionalized derivatives are described. Ring-cleavage reactions of this epoxide have been carried out with a variety of nucleophiles in order to show the general synthetic utility for preparing nitroxyls bearing two functional groups. The relatively facile synthesis of the nitroxyl amino alcohol should prove to be valuable in various spin labeling applications.

Convenient methods for the hydrolysis of oxazolidinones to vicinal aminoalcohols

Tetrahedron Letters 43 (2002) 557

Steven J. Katz and Stephen C. Bergmeier*

Department of Chemistry and Biochemistry, Ohio University, Athens, OH 45701, USA

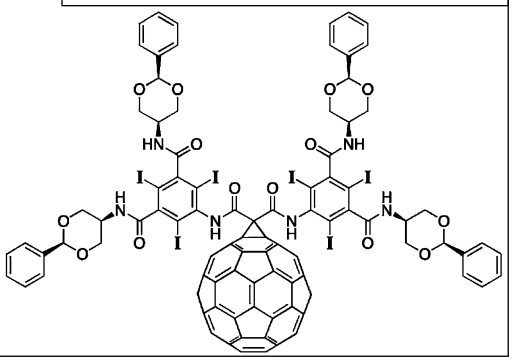


Toward fullerene-based X-ray contrast agents: design and synthesis of non-ionic, highly-iodinated derivatives of C_{60}

Tetrahedron Letters 43 (2002) 561

Tim Wharton and Lon J. Wilson*

Department of Chemistry and the Center for Nanoscale Science and Technology, MS-60, Rice University, Houston, TX 77251-1892, USA



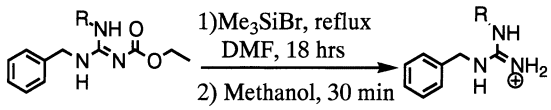
A highly efficient method for the synthesis of guanidinium derivatives

Tetrahedron Letters 43 (2002) 565

Joseph C. Manimala and Eric V. Anslyn*

Department of Chemistry and Biochemistry, The University of Texas at Austin, Austin, TX 78712, USA

The coupling of an amide to the ethyl carbamate-protected thiourea using EDCl resulted in high yield of guanidine and the subsequent complete deprotection of ethyl carbamate was carried out in Me_3SiBr.



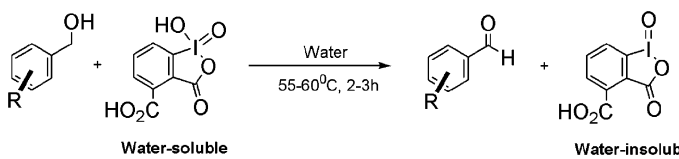
Synthesis and oxidation reactions of a user- and eco-friendly hypervalent iodine reagent

Tetrahedron Letters 43 (2002) 569

Arun P. Thottumkara[a] and Thottumkara K. Vinod[b,*]

[a]*Macomb High School, Macomb, IL 61455, USA*

[b]*Department of Chemistry, Western Illinois University, Macomb, IL 61455, USA*



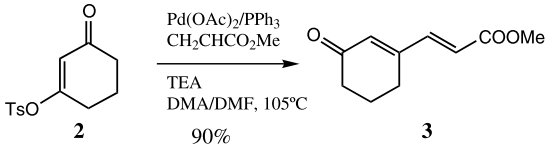
First examples of a tosylate in the palladium-catalyzed Heck cross coupling reaction

Tetrahedron Letters 43 (2002) 573

Xiaoyong Fu,* Shuyi Zhang, Jianguo Yin, Timothy L. McAllister, S. Anna Jiang, Chou-Hong Tann, T. K. Thiruvengadam and Fucheng Zhang

Synthetic Chemistry Department, Schering-Plough Research Institute, 1011 Morris Ave. Union, NJ 07083, USA

The tosylate (**2**) is reacted with methyl acrylate using palladium acetate as catalyst to provide 3-(3-oxo-1-cyclohexen-1-yl)-2-propenoic acid methyl ester (**3**) in excellent yield. The effect of reaction parameters such as temperature and catalyst as well as the ratio of palladium acetate to triphenylphosphine on the reaction rate has been studied.

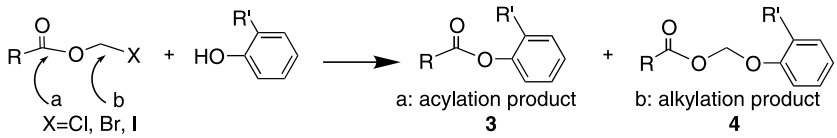


Steric hindrance is a key factor in the coupling reaction of (acyloxy) alkyl-α-halides with phenols to make a new promoiety for prodrugs

Tetrahedron Letters 43 (2002) 577

Hui Ouyang,[a,b] Ronald T. Borchardt[a] and Teruna J. Siahaan[a,*]

[a]*Department of Pharmaceutical Chemistry, The University of Kansas, Lawrence, KS 66044, USA*
[b]*Division of Drug Delivery and Disposition, The University of North Carolina at Chapel Hill, Chapel Hill, NC 27599, USA*

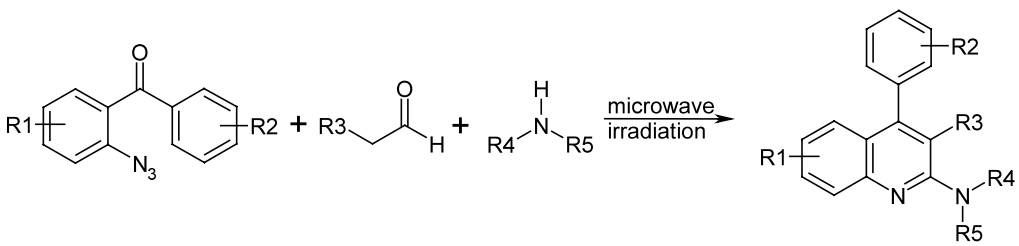


Microwave-assisted synthesis of 2-aminoquinolines

Tetrahedron Letters 43 (2002) 581

Noel S. Wilson,* Christopher R. Sarko and Gregory P. Roth

Department of Medicinal Chemistry, Boehringer Ingelheim Pharmaceuticals, Inc., Research & Development Center, 900 Ridgebury Rd, Ridgefield, CT 06877-0368, USA

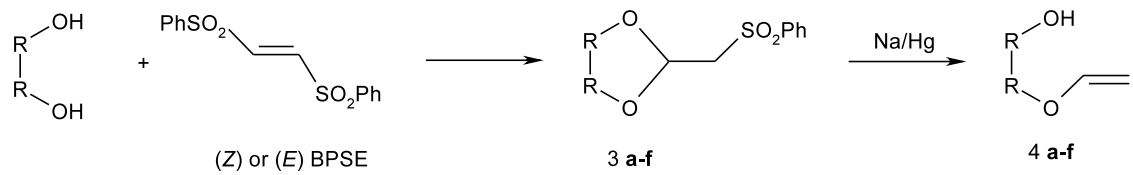


A general, selective synthesis of ω-hydroxyethenyl ethers

Tetrahedron Letters 43 (2002) 585

E. Cabianca,[a,b] F. Chéry,[a] P. Rollin,[a,*] A. Tatibouët[a] and O. De Lucchi[b]

[a]*ICOA-UMR 6005/Université d'Orléans, B.P. 6759, F-45067 Orléans Cedex 2, France*
[b]*Dipartimento di Chimica, Università Ca' Foscari di Venezia, Dorsoduro 2137, I-30123 Venezia, Italy*

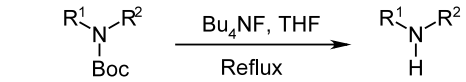


Tetrahedron Letters 43 (2002) 589

A mild and selective method for *N*-Boc deprotection

Sylvain Routier,* Laurence Saugé, Nathalie Ayerbe, Gérard Coudert and Jean-Yves Mérour

Institut de Chimie Organique et Analytique, associé au CNRS, Université d'Orléans, BP 6759, 45067 Orléans Cedex 2, France



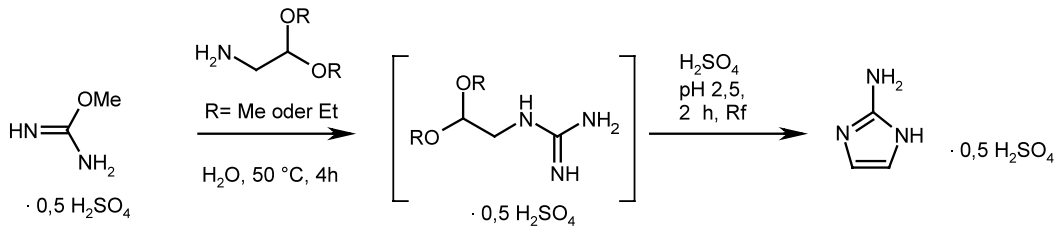
R^1 = Alkyl, aromatic
R^2 = H, alkyl, aromatic

Tetrahedron Letters 43 (2002) 593

Efficient and environmentally friendly synthesis of 2-amino-imidazole

Hilmar Weinmann,* Michael Harre, Klaus Koenig, Erik Merten and Ulf Tilstam

Schering AG, Process Research, D-13342 Berlin, Germany



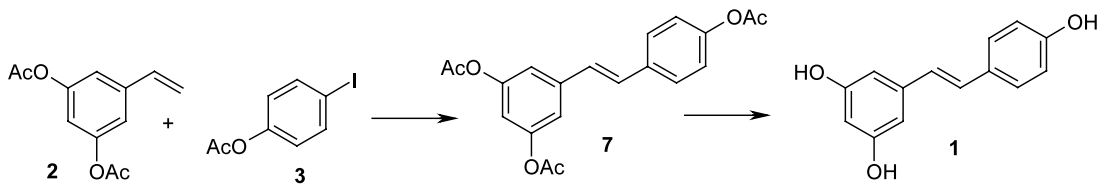
Tetrahedron Letters 43 (2002) 597

A new efficient resveratrol synthesis

Marcella Guiso,* Carolina Marra and Angela Farina

Dipartimento di Chimica Università 'La Sapienza', Piazzale Aldo Moro 5, 00185 Rome, Italy

The (*E*)-3,4′,5-trihydroxy-stilbene (resveratrol) was synthesised via Heck reaction in few steps and with an overall yield of 70%.

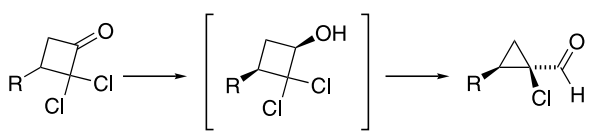


Tetrahedron Letters 43 (2002) 599

Stereoselective synthesis of *cis*-2-aryl- and 2-alkyl-1-chlorocyclopropanecarboxaldehydes

Guido Verniest,[a] Filip Bombeke,[a] O. G. Kulinkovich[b] and Norbert De Kimpe[a,*]

[a]*Department of Organic Chemistry, Faculty of Agricultural and Applied Biological Sciences, Ghent University, Coupure Links 653, B-9000 Gent, Belgium*
[b]*Department of Chemistry, Belarussian State University, Fr. Skariny Av. 4, Minsk 220050, Belarus*

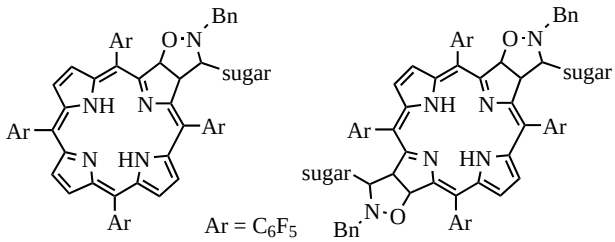


Tetrahedron Letters 43 (2002) 603

Porphyrins in 1,3-dipolar cycloaddition reactions with sugar nitrones. Synthesis of glycoconjugated isoxazolidine-fused chlorins and bacteriochlorins

Ana M. G. Silva,[a] Augusto C. Tomé,[a] Maria G. P. M. S. Neves,[a] Artur M. S. Silva,[a] José A. S. Cavaleiro,[a,*] Daniela Perrone[b] and Alessandro Dondoni[b]

[a]*Departamento de Química, Universidade de Aveiro, 3810-193 Aveiro, Portugal*
[b]*Dipartimento di Chimica, Laboratorio di Chimica Organica, Università di Ferrara, I-44100 Ferrara, Italy*

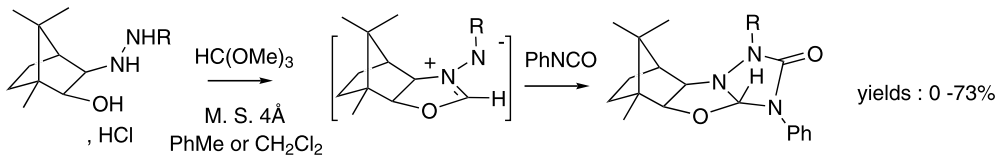


Tetrahedron Letters 43 (2002) 607

Oxazoline azomethine imines preparation and cycloaddition with phenyl isocyanate

Olivier Bedel, Dominique Urban and Yves Langlois*

Laboratoire de Synthèse des Substances Naturelles, associé au CNRS, Bâtiment 410, Université de Paris-Sud, 91405 Orsay, France

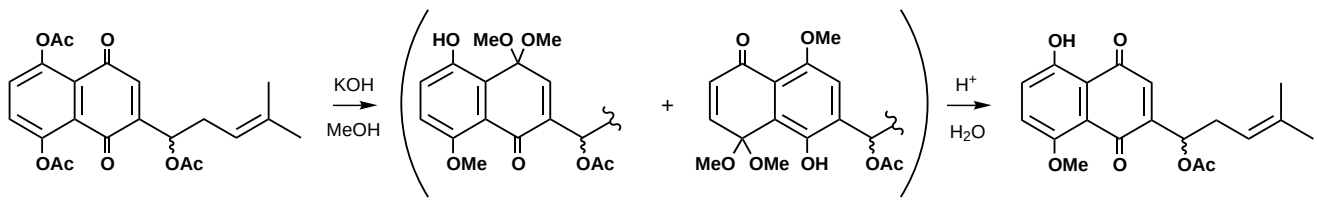


Tetrahedron Letters 43 (2002) 611

Synthesis of 8-*O*-alkylshikonin(alkannin)s: new ketal formation, tautomerism, and nucleophilic aromatic substitution

Tsutomu Tsuchiya* and Shintaro Ohmuro

Institute of Bioorganic Chemistry, 3-34-17 Ida, Nakahara-ku, Kawasaki 211-0035, Japan



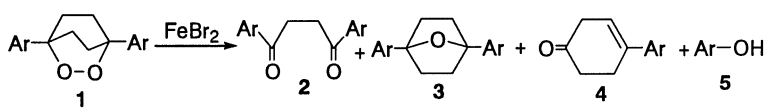
Tetrahedron Letters 43 (2002) 617

Fe(II)-mediated fragmentation of 1,4-diaryl-2,3-dioxabicyclo[2.2.2]-octanes through competitive single electron transfer pathway and Lewis acid pathway

Masaki Kamata,[a,*] Takashi Kudoh,[a] Jun-ichi Kaneko,[a] Hye-Sook Kim[b] and Yusuke Wataya[b]

[a]*Department of Chemistry, Faculty of Education and Human Science, Niigata University, Ikarashi, Niigata 950-2181, Japan*
[b]*Faculty of Pharmaceutical Sciences, Okayama University, Tsushima, Okayama 700-8530, Japan*

Reactions of **1** with $FeBr_2$ afforded various fragmentation products. The fragmentation mechanism was proposed and the antimalarial activities of **1** were tested.



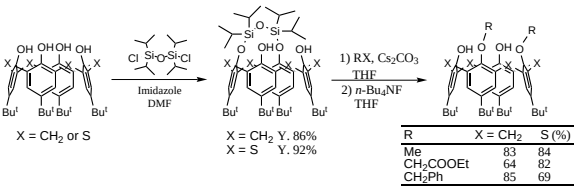
Proximal *O,O′*-capped calix[4]arenes with a disiloxane bridge as highly efficient synthetic intermediates for 1,2-dialkylation at the lower rim

Tetrahedron Letters 43 (2002) 621

Fumitaka Narumi,[a,*] Naoya Morohashi,[b] Nobuji Matsumura,[b] Nobuhiko Iki,[b] Hiroshi Kameyama[a] and Sotaro Miyano[b,*]

[a]*Department of Basic Sciences, School of Science and Engineering, Ishinomaki Senshu University, 1 Shinmito, Minamisakai, Ishinomaki 986-8580, Japan*

[b]*Department of Biomolecular Engineering, Graduate School of Engineering, Tohoku University, Aramaki-Aoba 07, Aoba-ku, Sendai 980-8579, Japan*



R	X = CH_2	S (%)
Me	83	84
CH_2COOEt	64	82
CH_2Ph	85	69

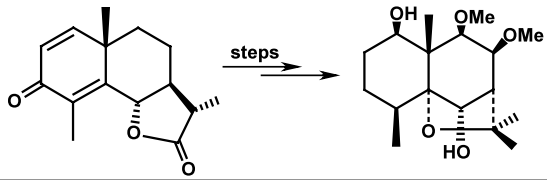
A novel approach for construction of the naturally occurring dihydroagarofuran sesquiterpene skeleton

Tetrahedron Letters 43 (2002) 627

Wu Jiong Xia, De Run Li, Lei Shi and Yong Qiang Tu*

Department of Chemistry & National Laboratory of Applied Organic Chemistry, Lanzhou University, Lanzhou 730000, PR China

A general and efficient approach for synthesis of a kind of dihydroagarofuran sesquiterpenes extensively present in the *Celastraceae* family of plants has been developed by a series of transformations from α-santonin.

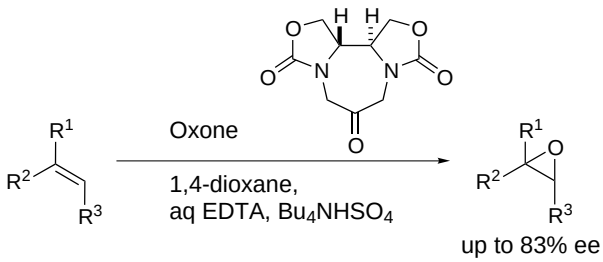


Chiral ketone-catalyzed asymmetric epoxidation of olefins with Oxone®

Tetrahedron Letters 43 (2002) 631

Koichiro Matsumoto and Kiyoshi Tomioka*

Graduate School of Pharmaceutical Sciences, Kyoto University, Yoshida, Sakyo-ku, Kyoto 606-8501, Japan



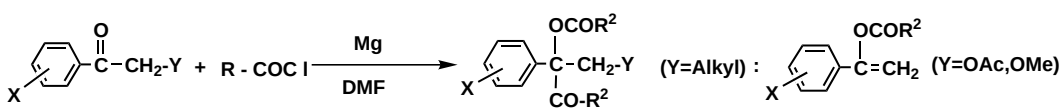
Mg-promoted carbon-acylation of aromatic aldehydes and ketones

Tetrahedron Letters 43 (2002) 635

Ikuzo Nishiguchi,* Masahiro Sakai, Hirofumi Maekawa, Toshinobu Ohno, Yoshimasa Yamamoto and Yoshio Ishino

Department of Chemistry, Nagaoka University of Technology, 1603-1, Kamitomiokacho, Nagaoka, Niigata 940-2188, Japan

Mg-promoted cross-coupling of aromatic aldehydes and ketones with aliphatic chlorides brought about efficient *C*-acylation.



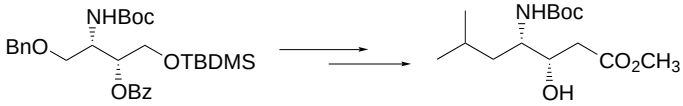
Synthesis of statine employing a general *syn*-amino alcohol building block

Tetrahedron Letters 43 (2002) 639

Soon Ji Kwon and Soo Y. Ko*

Department of Chemistry and Division of Molecular Life Sciences, Ewha Womans University, Seoul 120-750, South Korea

An orthogonally protected *syn*-2-amino-1,3,4-butanetriol has been employed as a general *syn*-amino alcohol building block in the synthesis of statine.



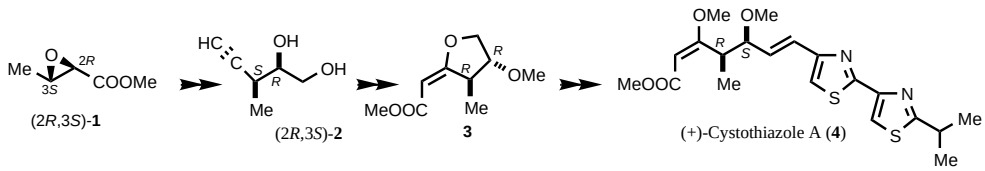
New total synthesis of (+)-cystothiazole A

Tetrahedron Letters 43 (2002) 643

Keisuke Kato,[a] Akira Nishimura,[a] Yasuhiro Yamamoto[b] and Hiroyuki Akita[a,*]

[a]*School of Pharmaceutical Sciences, Toho University, 2-2-1, Miyama, Funabashi, Chiba 274-8510, Japan*
[b]*Department of Chemistry, Faculty of Science, Toho University, 2-2-1, Miyama, Funabashi, Chiba 274-8510, Japan*

Palladium-catalyzed cyclization–methoxycarbonylation of (2*R*,3*S*)-**2** derived from (2*R*,3*S*)-epoxy butanoate (**1**) followed by methylation gave the tetrahydro-furylidene acetate (**3**), which was converted to the (+)-cystothiazole A (**4**).

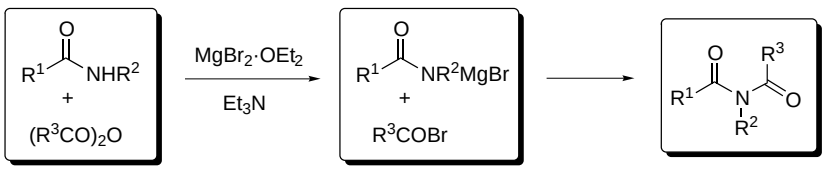


N-Acylation of amides with acid anhydrides by way of dual activation using $MgBr_2 \cdot OEt_2$

Tetrahedron Letters 43 (2002) 647

Shinji Yamada,* Setsuko Yaguchi and Kaori Matsuda

Department of Chemistry, Faculty of Science, Ochanomizu University, Bunkyo-ku, Tokyo 112-8610, Japan

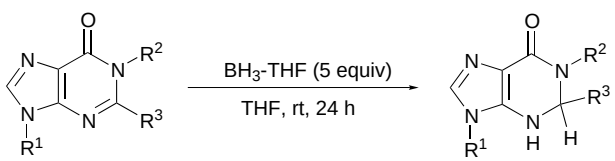


Regioselective BH_3–hydride reduction of inosine derivatives

Tetrahedron Letters 43 (2002) 653

Kosaku Hirota,[a,*] Hironao Sajiki,[a] Ryuji Hattori,[a] Yasunari Monguchi,[a] Genzoh Tanabe[b] and Osamu Muraoka[b]

[a]*Laboratory of Medicinal Chemistry, Gifu Pharmaceutical University, Gifu 502-8585, Japan*
[b]*Faculty of Pharmaceutical Sciences, Kinki University, Higashi-Osaka 577-0818, Japan*



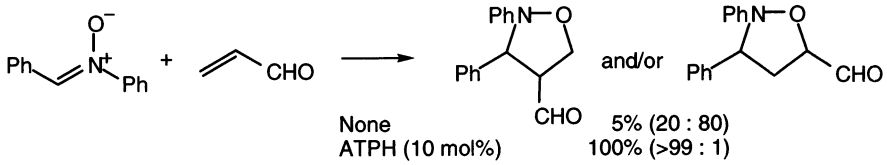
Tetrahedron Letters 43 (2002) 657

Nitrone cycloaddition reactions to α,β-unsaturated carbonyl acceptors catalyzed by a pinhole Lewis acid catalyst. Dramatic rate acceleration and improvement of regioselectivity and diastereoselectivity

Shuji Kanemasa,[a,*] Naohisa Ueno[b] and Moto Shirahase[b]

[a]*Institute of Advanced Material Study, CREST of JST (Japan Science and Technology), Kyushu University, 6-1 Kasugakoen, Kasuga 816-8580, Japan*

[b]*Department of Molecular and Material Sciences, Graduate School of Engineering Sciences, Kyushu University, 6-1 Kasugakoen, Kasuga 816-8580, Japan*



Tetrahedron Letters 43 (2002) 661

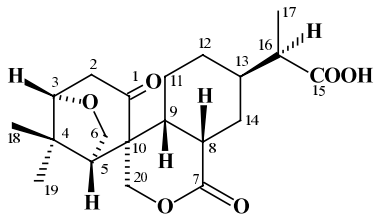
Two novel *ent*-kaurane diterpenoids isolated from *Isodon eriocalyx* var. *laxiflora*

Xuemei Niu,[a] Shenghong Li,[a] Qinshi Zhao,[a] Zhongwen Lin,[a] Handong Sun,[a,*] Yang Lu,[b] Cheng Wang[b] and Qitai Zheng[b]

[a]*Laboratory of Phytochemistry, Kunming Institute of Botany, The Chinese Academy of Sciences, Kunming 650204, PR China*

[b]*Institute of Materia Medica, The Chinese Academy of Medical Sciences, Beijing 100050, PR China*

Two novel 3,6-epoxy-6,7:8,15-*seco*-7,20-olide-*ent*-kaurane diterpenoids laxiflorin E (**1**) and laxiflorin F (**2**) were isolated from the leaves of *Isodon eriocalyx* var. *laxiflora*. The relative stereochemistry of **1** was established by single crystal X-ray crystallography, which also confirmed the novel carbon skeleton of the new *ent*-kaurane diterpenoid.



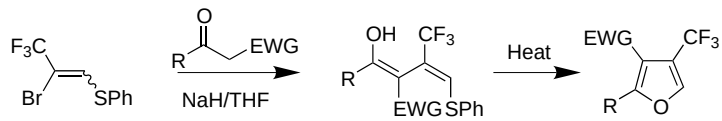
1

Tetrahedron Letters 43 (2002) 665

The regio- and stereoselective addition of carbon nucleophiles to trifluoromethyl phenylsulfanyl acetylene: a novel and expeditious approach to 3-trifluoromethyl furans

Biao Jiang,* Fangjiang Zhang and Wennan Xiong

The State Key Laboratory of Organometallic Chemistry, Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences, 354 Fenglin Road, Shanghai 200032, China



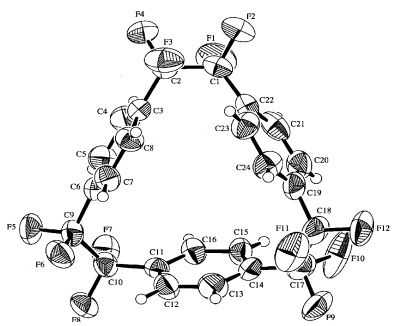
Tetrahedron Letters 43 (2002) 669

A convenient preparation of octafluoro[2,2]paracyclophane and dodecafluoro[2,2]paracyclophane

Shi-zheng Zhu,* Yun-yu Mao, Gui-fang Jin, Chao-yue Qin, Qian-li Chu and Chang-ming Hu

Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences, 354 Fenglin Lu, Shanghai 200032, China

A new and convenient synthesis of octafluoro[2,2] paracyclophane and dodecafluoro[2,2]paracyclophane is reported.

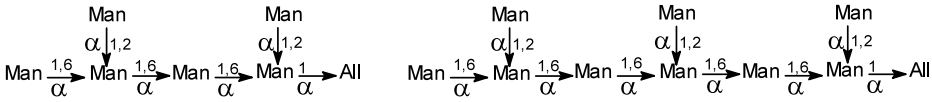


Tetrahedron Letters 43 (2002) 673

Facile syntheses of D-mannose hexa- and nonasaccharides: the di- and trimer of the trisaccharide repeating unit of the cell-wall mannans of *Epidermophyton floccosum*, *Trychophyton mentagrophytes*, *Microsporum canis* and related species of *Microsporum*

Jun Ning,[a] Linsen Heng[b] and Fanzuo Kong[a,*]

[a]*Research Center for Eco-Environmental Sciences, Academia Sinica, PO Box 2871, Beijing 100085, PR China*
[b]*Daxian Normal College, Department of Chemistry, Sichuan, PR China*

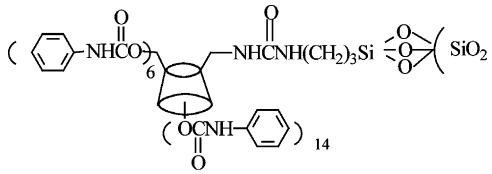


Tetrahedron Letters 43 (2002) 677

Facile preparative HPLC enantioseparation of racemic drugs using chiral stationary phases based on mono-6^{A}-azido-6^{A}-deoxy-perphenylcarbamoylated β-cyclodextrin immobilized on silica gel

Siu-Choon Ng,[a,*] Lei Chen,[a] Li-Feng Zhang[b] and Chi-Bun Ching[c]

[a]*Department of Chemistry, National University of Singapore, Kent Ridge Crescent, Singapore 119260*
[b]*Environmental Technology Institute, Innovation Center Unit 237, Nanyang Drive, Singapore 639798*
[c]*Chemical and Process Engineering Center, National University of Singapore, Engineering Drive 4, Singapore 117576*



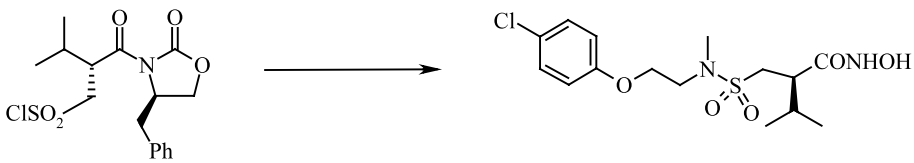
CD-CSPs with well-defined chemical structures exhibited good enantioseparation in both analytical and preparative scale HPLC.

Tetrahedron Letters 43 (2002) 683

An enantioselective synthesis of sulphonamide hydroxamic acids as matrix metalloproteinase inhibitors

Robert J. Watson,* D. Batty, A. D. Baxter, D. R. Hannah, D. A. Owen and J. G. Montana

Celltech R & D Ltd, Granta Park, Abington, Cambridge CB1 6GS, UK

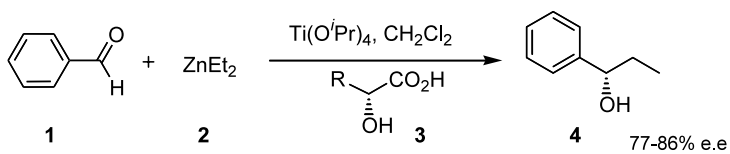


Tetrahedron Letters 43 (2002) 687

α-Hydroxy carboxylic acids: new ligands for diethylzinc additions to aldehydes

Tomasz Bauer* and Joanna Tarasiuk

Department of Chemistry, Warsaw University, Pasteura 1, PL-02-093 Warsaw, Poland



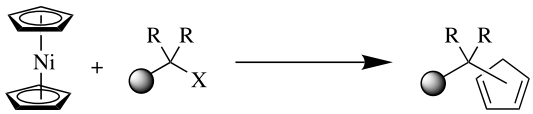
Facile synthesis of polymer-supported cyclopentadienes

Tetrahedron Letters 43 (2002) 691

Nicholas E. Leadbeater*

Department of Chemistry, King's College London, Strand, London WC2R 2LS, UK

A new route to polymer-supported cyclopentadienes using nickelocene as a source of cyclopentadiene is discussed.



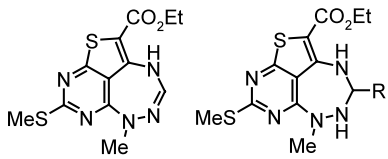
R = H, Ph X = Br, Cl

Synthesis of a novel heterocyclic ring system: 2-thia-3,5,6,7,9-pentaazabenz[*cd*]azulenes

Tetrahedron Letters 43 (2002) 695

Sigitas Tumkevicius,[a,*] Luigi A. Agrofoglio,[b] Andrius Kaminskas,[a] Gintaras Urbelis,[a] Thomas A. Zevaco[c] and Olaf Walter[c]

[a]*Department of Organic Chemistry, Faculty of Chemistry, Vilnius University, Naugarduko 24, Vilnius 2006, Lithuania*
[b]*Institut de Chimie Organique et Analytique, Associe au CNRS, Université d'Orléans, BP 6759 Orléans, France*
[c]*Forschungszentrum Karlsruhe GmbH, Institut fur Technische Chemie, Bereich Chemisch-Physikalische Verfahren Postfach 3640, D-76021 Karlsruhe, Germany*



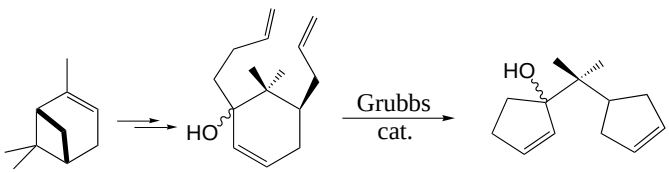
R = H, Me, Et

Novel tandem ring-opening/ring-closing metathesis reactions of functionalized cyclohexenoids derived from (−)-α-pinene

Tetrahedron Letters 43 (2002) 699

Goverdhan Mehta* and Jayakrishnan Nandakumar

Department of Organic Chemistry, Indian Institute of Science, Bangalore 560 012, India

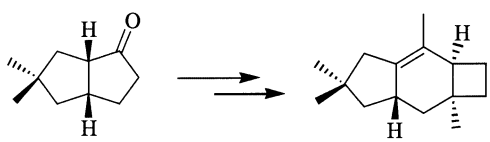


A new synthesis of tricyclic sesquiterpene (±)-sterpurene

Tetrahedron Letters 43 (2002) 703

Goverdhan Mehta* and K. Sreenivas

Department of Organic Chemistry, Indian Institute of Science, Bangalore 560 012, India

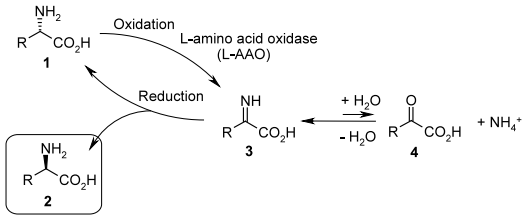


Tetrahedron Letters 43 (2002) 707

Amine–boranes: effective reducing agents for the deracemisation of DL-amino acids using L-amino acid oxidase from *Proteus myxofaciens*

François-René Alexandre,[a] David P. Pantaleone,[b] Paul P. Taylor,[b] Ian G. Fotheringham,[a] David J. Ager[c] and Nicholas J. Turner[a,*]

[a]*Department of Chemistry, Centre for Protein Technology, University of Edinburgh, King's Buildings, West Mains Road, Edinburgh EH9 3JJ, UK*
[b]*Great Lakes Fine Chemicals, 601 E. Kensington Rd., Mt. Prospect, IL 60056, USA*
[c]*MediChem Research, Inc., 2501 Davey Road, Woodridge, Il 60517, USA*



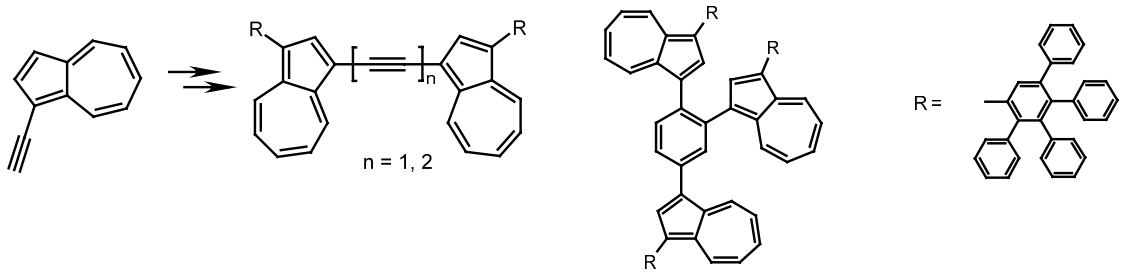
The deracemisation of DL-amino acids has been accomplished using L-amino acid oxidase from *Proteus myxofaciens* in combination with amine boranes.

Tetrahedron Letters 43 (2002) 711

New π-systems from 1-ethynylazulene

Ahmed H. M. Elwahy*

Chemistry Department, Faculty of Science, Cairo University, Giza, Egypt



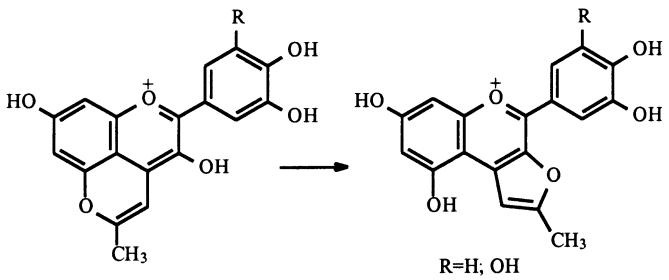
Tetrahedron Letters 43 (2002) 715

Unexpected rearrangement of pyranoanthocyanidins to furoanthocyanidins

Yinrong Lu* and L. Yeap Foo

Industrial Research Limited, PO Box 31310 Lower Hutt, New Zealand

Pyranoanthocyanidins under acidic conditions rearrange to form a new type of furoanthocyanidins. The structures of both pyranoanthocyanidins and furoanthocyanidins were elucidated by NMR.



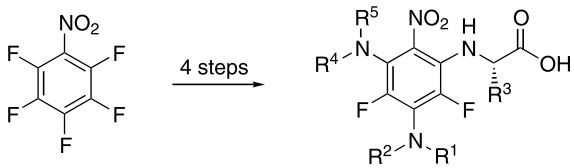
Tetrahedron Letters 43 (2002) 719

Pentafluoronitrobenzene a novel scaffold for the solid-phase synthesis of 2,4,6-substituted-3,5-difluoronitrobenzene libraries

Richard J. Holland, Ian R. Hardcastle,* Andrew G. Dick, Bernard P. Nutley, Angela Hayes and Michael Jarman

CRC Centre for Cancer Therapeutics at the Institute of Cancer Research, Cotswold Road, Sutton, Surrey SM2 5NG, UK

The use of pentafluoronitrobenzene as a scaffold for solid-phase synthesis of 2,4,6-substituted-3,5-difluoronitrobenzenes is described. Primary and secondary amines can be introduced to the scaffold via three successive nucleophilic aromatic substitutions under increasingly forcing conditions.

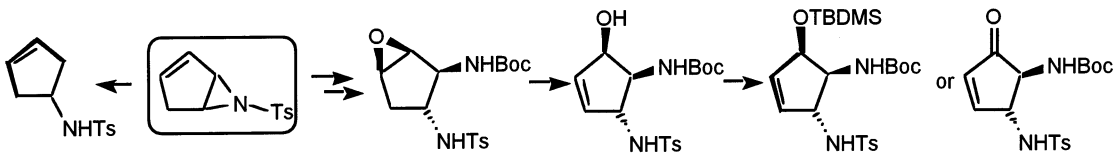


Tetrahedron Letters 43 (2002) 723

Synthesis and reactions of cyclopentadiene monoaziridine: a concise approach to the core of agelastatin A

Elise Baron, Peter O'Brien* and Timothy D. Towers

Department of Chemistry, University of York, Heslington, York YO10 5DD, UK



Tetrahedron Letters 43 (2002) 727

The intramolecular nucleophilic 1,5-*O*-heterocyclization of (η^4-dienyl)-tricarbonyliron diols: conformationally locked phosphocholines

Alain Braun[a] and Jean-Paul Lellouche[b,*]

[a]*CEA, CE-Saclay, DBCM, Service des Molécules Marquées, Bât 547, F-91191 Gif-sur-Yvette, France*
[b]*Department of Chemistry, Bar-Ilan University, Ramat-Gan 52900, Israel*