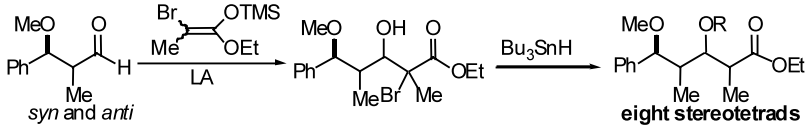
Tetrahedron Letters 43 (2002) 5377

A straightforward strategy toward the construction of polypropionate frameworks, based on a sequence of diastereoselective Lewis acid-mediated aldol reaction and diastereoselective radical debromination reaction

Syun-ichi Kiyooka,[a,b,*] Mineyuki Shiinoki,[b] Kumi Nakata[b] and Fumitaka Goto[c]

[a]*Institute of Fundamental Research for Organic Chemistry, Kyushu University, Higashi-ku, Fukuoka 812-8581, Japan*
[b]*Department of Chemistry, Kochi University, Akebono-cho, Kochi 780-8520, Japan*
[c]*Cellular Technology Institute, Otsuka Pharmaceutical Co., Ltd, Kawauchi-cho, Tokushima 771-0130, Japan*



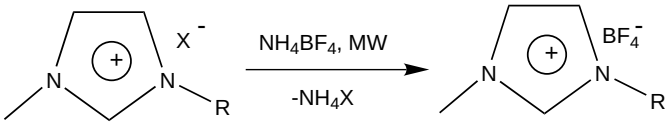
Tetrahedron Letters 43 (2002) 5381

An improved preparation of 1,3-dialkylimidazolium tetrafluoroborate ionic liquids using microwaves

Vasudevan V. Namboodiri and Rajender S. Varma*

Clean Processes Branch, National Risk Management Research Laboratory, US Environmental Protection Agency, MS 443, 26 W. Martin Luther King Drive, Cincinnati, OH 45268, USA

An efficient microwave protocol is described for the expeditious preparation of 1,3-dialkylimidazolium tetrafluoroborate ionic liquids.

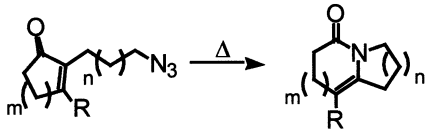


Tetrahedron Letters 43 (2002) 5385

Thermal rearrangements of α-(ω-azidoalkyl) enones

Gary A. Molander* and Christopher T. Bibeau

Roy and Diana Vagelos Laboratories, Department of Chemistry, University of Pennsylvania, 231 South 34th Street, Philadelphia, PA 19104-6323, USA

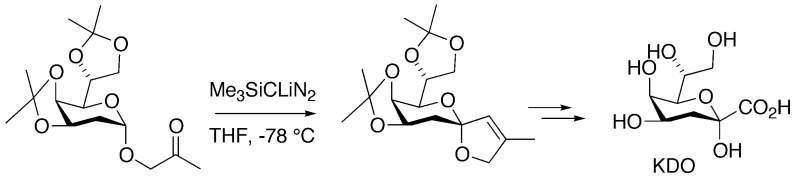


Tetrahedron Letters 43 (2002) 5389

Alkylidenecarbene insertion at anomeric C–H bonds. Synthesis of 3-deoxy-D-*arabino*-2-heptulosonic acid (DAH) and 3-deoxy-D-*manno*-2-octulosonic acid (KDO)

Duncan J. Wardrop* and Wenming Zhang

Department of Chemistry, University of Illinois at Chicago, 845 West Taylor Street, Chicago, IL 60607-7061, USA

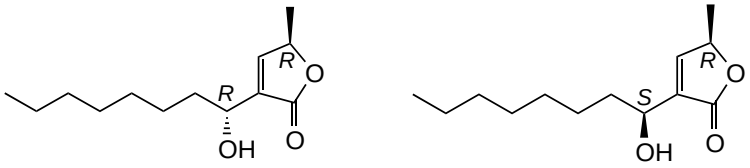


Tetrahedron Letters 43 (2002) 5393

Elaboration of a Baylis–Hillman adduct to (−)-acaterin and its diastereomer through ring closing metathesis

R. Vijaya Anand, S. Baktharaman and Vinod K. Singh*

Department of Chemistry, Indian Institute of Technology, Kanpur 208 016, India



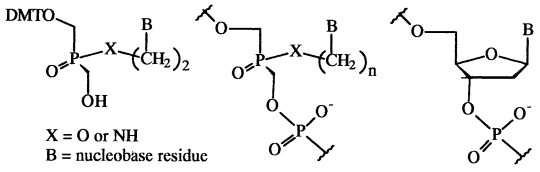
Tetrahedron Letters 43 (2002) 5397

Bis(hydroxymethyl)phosphinic acid analogues of acyclic nucleosides; synthesis and incorporation into short DNA oligomers

B. Nawrot,* O. Michalak, M. Nowak, A. Okruszek, M. Dera and W. J. Stec

Centre of Molecular and Macromolecular Studies, Department of Bioorganic Chemistry, Polish Academy of Sciences, Sienkiewicza 112, 90-363 Lodz, Poland

Based on a bis(hydroxymethyl)phosphinic acid backbone, novel analogues of acyclic nucleosides were synthesized and used for the synthesis of the short oligomers by the phosphoramidite approach.

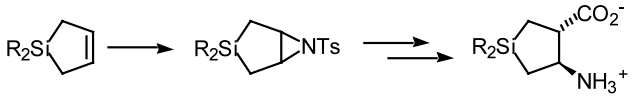


Tetrahedron Letters 43 (2002) 5401

Synthesis of novel sila-substituted β-amino acids

Jennifer L. Matthews,[a,b,*] Duncan R. M[c]Arthur[a] and Kenneth W. Muir[a]

[a]*Department of Chemistry, Joseph Black Building, University of Glasgow, Glasgow G12 8QQ, UK*
[b]*Division of Biochemistry and Molecular Biology, Institute of Biomedical & Life Sciences, Joseph Black Building, University of Glasgow, Glasgow G12 8QQ, UK*



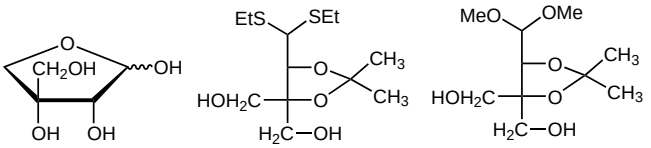
Tetrahedron Letters 43 (2002) 5405

An efficient and versatile synthesis of apiose and some C-1-aldehyde- and/or 2,3-*O*-protected derivatives

Miroslav Kóš,* Júlia Mičová, Bohumil Steiner and Juraj Alföldi

Institute of Chemistry, Slovak Academy of Sciences, Dúbravská cesta 9, SK-84238 Bratislava, Slovakia

A stepwise synthesis of D-apiose and some protected derivatives is described starting from L-arabinose.



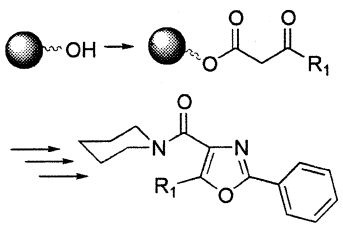
4 **2** **7**

Tetrahedron Letters 43 (2002) 5407

The preparation of polymer bound β-ketoesters and their conversion into an array of oxazoles

Bruce Clapham,[a,*] Sang-Hyeup Lee,[a] Guido Koch,[b] Jürg Zimmermann[b] and Kim D. Janda[a,*]

[a]*The Scripps Research Institute, 10550 N. Torrey Pines Road, La Jolla, CA 92037, USA*
[b]*Novartis Pharma AG, Combinatorial Chemistry Unit, WSJ-507, Postfach, CH-4002 Basel, Switzerland*



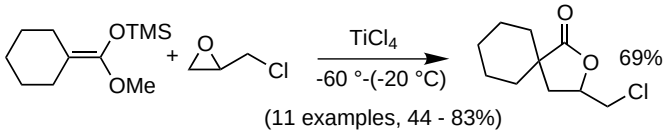
Tetrahedron Letters 43 (2002) 5411

Titanium tetrachloride promoted reaction of silyl ketene acetals with epoxides: a new method for the synthesis of γ-butanolides

Veselin Maslak,[a,b] Radomir Matović[a,b] and Radomir N. Saičić[a,b,*]

[a]*Faculty of Chemistry, University of Belgrade, Studentski trg 16, PO Box 158, 11000 Belgrade, Yugoslavia*
[b]*I.C.T.M. Center for Chemistry, Njegoseva 12, 11001 Belgrade, Yugoslavia*

Reaction of silyl ketene acetals with epoxides under modified Mukaiyama conditions affords γ-butanolides in good yields.



(11 examples, 44 - 83%)

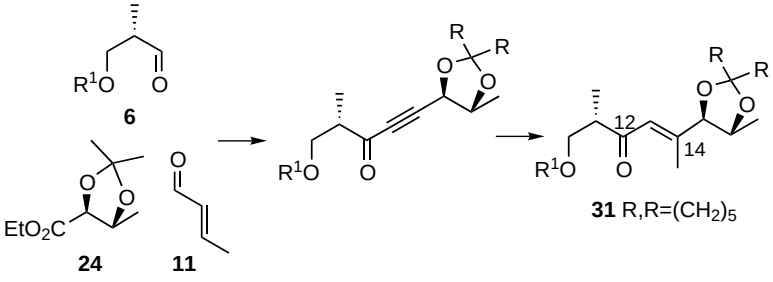
Tetrahedron Letters 43 (2002) 5415

An approach towards C12 oxo analogues of the side chain of pumiliotoxin B/allopumiliotoxin 339A and B

John M. Gardiner,* Philip E. Giles and María Luz Martín Martín

Department of Chemistry, University of Manchester Institute of Science and Technology, PO Box 88, Manchester M60 1QD, UK

Approaches towards the side chain of the pumiliotoxin B and allopumiliotoxins 339A/B are described, which provide a route towards C12 oxo analogues, and a new means to introduce C14 functionality and the C13,C14 double bond.



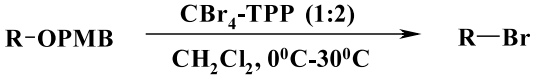
Tetrahedron Letters 43 (2002) 5419

Single step transformation of PMB ethers to bromides using a CBr_4–TPP reagent system

J. S. Yadav* and Rajesh Kumar Mishra

Division of Organic Chemistry-I, Natural Products Laboratory, Indian Institute of Chemical Technology, Hyderabad 500 007, India

PMB ethers were efficiently transformed to their corresponding alkyl bromides by a CBr_4–TPP reagent system with a wide range of other functionality present in the substrate.



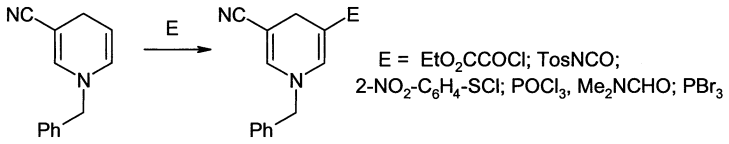
R = Alkyl, allyl, benzyl

Tetrahedron Letters 43 (2002) 5423

Electrophilic substitution as a convenient approach to functionalized *N*-benzyl-1,4-dihydropyridines

Aleksandr N. Kostyuk,* Dmitriy M. Volochnyuk, Larisa N. Lupiha, Aleksandr M. Pinchuk and Andrei A. Tolmachev

Institute of Organic Chemistry, National Academy of Sciences of Ukraine, Murmanskaya 5, 02094 Kyiv-94, Ukraine

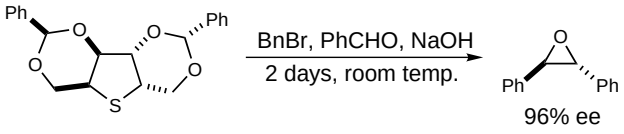


Tetrahedron Letters 43 (2002) 5427

A highly enantioselective one-pot sulfur ylide epoxidation reaction

Caroline L. Winn, Benjamin R. Bellenie and Jonathan M. Goodman*

Department of Chemistry, University of Cambridge, Lensfield Road, Cambridge CB2 1EW, UK



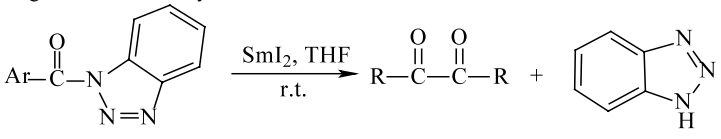
Tetrahedron Letters 43 (2002) 5431

Formation of 1,2-diketones by samarium diiodide promoted reaction of *N*-acylbenzotriazoles

Xiaoxia Wang[a] and Yongmin Zhang[a,b,*]

[a]*Department of Chemistry, Zhejiang University (Campus Xixi), Hangzhou 310028, PR China*
[b]*State Key Laboratory of Organometallic Chemistry, Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences, Shanghai 200032, PR China*

Coupling of *N*-acylbenzotriazoles **1** into 1,2-diketones **2** or *vic*-di(1*H*-1,2,3-benzotriazol-1-yl)alkene **3** has been realized with samarium diiodide at room temperature in good to excellent yields.



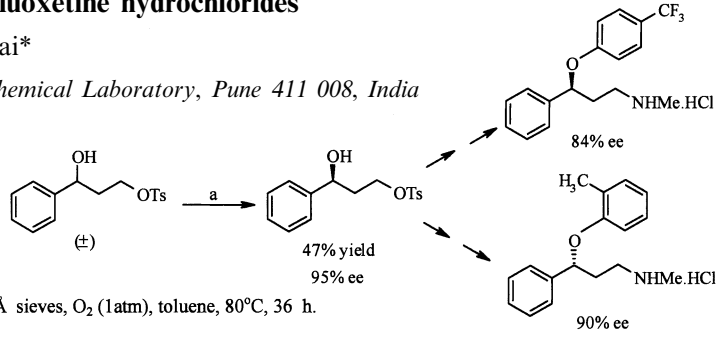
1 **2**

Tetrahedron Letters 43 (2002) 5435

Pd-catalyzed kinetic resolution of benzylic alcohols: a practical synthesis of (*R*)-tomoxetine and (*S*)-fluoxetine hydrochlorides

Iliyas Sayyed Ali and Arumugam Sudalai*

Division of Process Development, National Chemical Laboratory, Pune 411 008, India



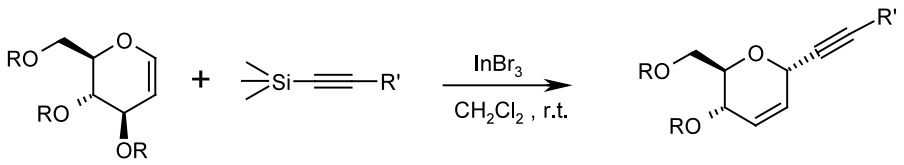
a: 5 mol% $Pd(OAc)_2$, 20 mol% (-)-sparteine, 3Å sieves, O_2 (1atm), toluene, 80°C, 36 h.

Indium tribromide-catalyzed highly stereoselective synthesis of alkynylsugars

Tetrahedron Letters 43 (2002) 5437

J. S. Yadav,* B. V. S. Reddy, A. Krishnam Raju and C. Venkateswara Rao

Organic Chemistry Division-1, Indian Institute of Chemical Technology, Hyderabad 500 007, India



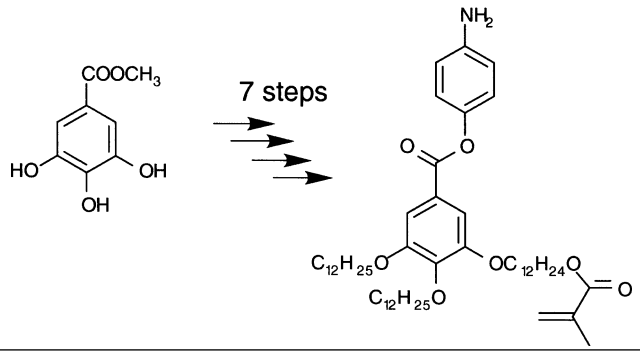
A facile route to multi-functionalization of methyl gallate: pivotal synthons for mesomorphic materials

Tetrahedron Letters 43 (2002) 5441

Patrick Nguyen, Laurent Douce and Raymond Ziessel*

Laboratoire de Chimie Moléculaire associé au CNRS, Ecole de Chimie, Polymères et Matériaux (ECPM), 25 rue Becquerel, 67087 Strasbourg Cedex 02, France

A convenient method for the synthesis of anilines substituted by gallic derivatives is described. The protocol is based on sequential alkylation of the phenol functions.



Convenient, large-scale asymmetric synthesis of β-aryl-substituted α,α-difluoro-β-amino acids

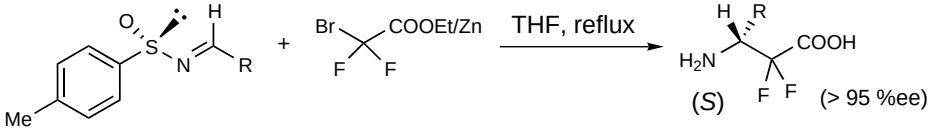
Tetrahedron Letters 43 (2002) 5445

Vadim A. Soloshonok,[a,*] Hironari Ohkura,[a] Alexander Sorochinsky,[b] Natalia Voloshin,[b] Andrey Markovsky,[b] Michael Belik[b] and Takashi Yamazaki[c]

[a]*Department of Chemistry and Biochemistry, University of Oklahoma, 620 Parrington Oval, Room 208, Norman, OK 73019-3051, USA*

[b]*Institute of Bioorganic Chemistry and Petrochemistry, Ukrainian Academy of Sciences, Kiev 94, 253660, Ukraine*

[c]*Department of Bioengineering, Tokyo Institute of Technology, 4259 Nagatsuta-cho, Midori-ku, Yokohama 226-8501, Japan*



Biomimetic reductive amination of perfluoroalkylcarboxylic acids to α,α-dihydroperfluoroalkylamines

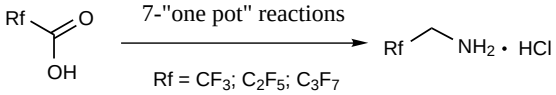
Tetrahedron Letters 43 (2002) 5449

Vadim A. Soloshonok,[a,*] Hironari Ohkura[a] and Kenji Uneyama[b]

[a]*Department of Chemistry and Biochemistry, University of Oklahoma, 620 Parrington Oval, Room 208, Norman, OK 73019-3051, USA*

[b]*Department of Applied Chemistry, Faculty of Engineering, Okayama University, Okayama 700, Japan*

The first general method for the reducing reagent-free, biomimetic transformation of perfluorocarboxylic acids to the α,α-dihydroperfluoroalkyl amines is reported.

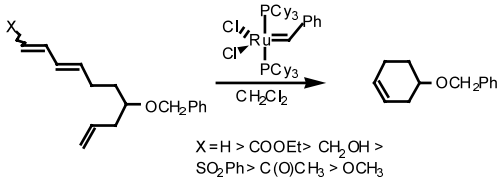


Tetrahedron Letters 43 (2002) 5453

Comparative investigation of kinetic consequences associated with long-range electronic effects on catalytic ruthenium-promoted ring-closing metathesis

Kallol Basu, Jose A. Cabral and Leo A. Paquette*

Evans Chemical Laboratories, The Ohio State University, Columbus, OH 43210, USA

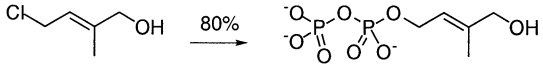


Tetrahedron Letters 43 (2002) 5457

A convenient synthesis of (*E*)-4-hydroxy-3-methyl-2-butenyl pyrophosphate and its [4-^{13}C]-labeled form

José-Luis Giner

Department of Chemistry, State University of New York-ESF, Syracuse, NY 13210, USA

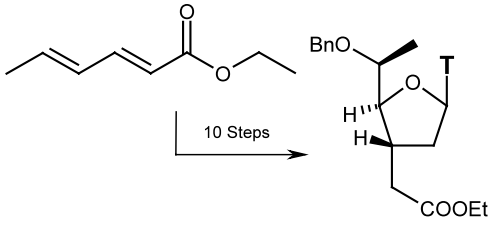


Tetrahedron Letters 43 (2002) 5461

Towards novel amide-modified oligonucleotides: asymmetric synthesis of 5′-(*S*)-methyl-3′-carboxymethylene-3′-deoxythymidine

Sebastian Wendeborn,* Hannes Nussbaumer, Frédéric Robert, Mario Jörg and Johannes Paul Pachlatko

Syngenta Crop Protection AG, CH-4002 Basel, Switzerland



Tetrahedron Letters 43 (2002) 5465

Self-assembly of a short peptide monomer into a continuous hydrogen bonded supramolecular helix: the crystallographic signature

Debasish Haldar,[a] Samir Kumar Maji,[a] Michael G. B. Drew,[b] Arijit Banerjee[a] and Arindam Banerjee[a,*]

[a]*Department of Biological Chemistry, Indian Association for the Cultivation of Science, Jadavpur, Kolkata 700 032, India*

[b]*Department of Chemistry, The University of Reading, Whiteknights, Reading RG6 6AD, UK*

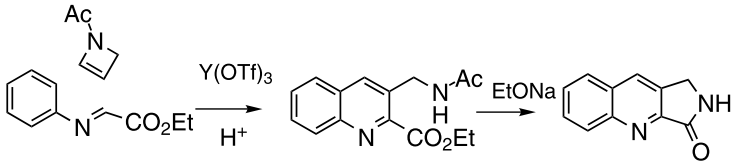
A concise formal synthesis of luotonin A

Tetrahedron Letters 43 (2002) 5469

Daire Osborne and Paul J. Stevenson*

School of Chemistry, Queens University, Belfast BT9 5AG, Northern Ireland, UK

A formal [4+2] cycloaddition fragmentation reaction of a 2-glyoxylate imine derived from aniline gave an advanced precursor to luotonin A.



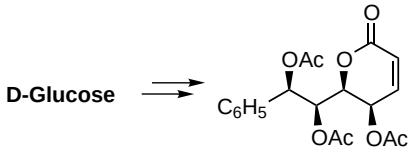
Enantiospecific synthesis of [7*R*,6*S*,5*S*,4*R*]-triacetoxy-(−)-goniotriol

Tetrahedron Letters 43 (2002) 5471

G. S. C. Srikanth, Urlam Murali Krishna and Girish K. Trivedi*

Department of Chemistry, Indian Institute of Technology Bombay, Powai, Mumbai 400076, India

A short and efficient synthesis of **1** from D-glucose has been described.



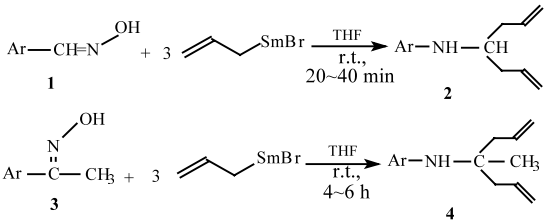
1

Preparation of dihomoallylic secondary amines through samarium mediated allylation of oximes

Tetrahedron Letters 43 (2002) 5475

Xuesen Fan[a,c] and Yongmin Zhang[a,b,*]

[a]*Department of Chemistry, Zhejiang University (Campus Xixi), Hangzhou 310028, PR China*
[b]*State Key Laboratory of Organometallic Chemistry, Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences, Shanghai 200032, PR China*
[c]*Department of Chemistry, Henan Normal University, Xinxiang 453002, PR China*



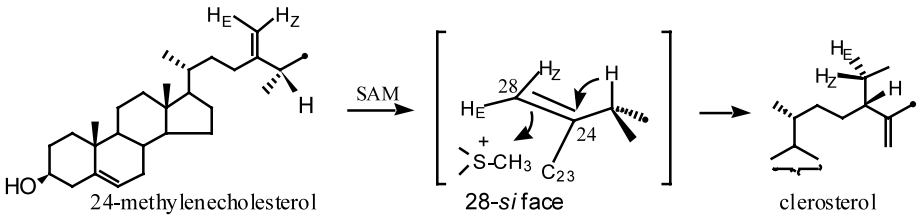
A novel samarium-mediated diallylation of oximes is reported.

Mechanism of clerosterol biosynthesis in *Ajuga* hairy roots: stereochemistry of C-28 methylation of 24-methylene sterol

Tetrahedron Letters 43 (2002) 5479

Takeshi Koami, Kiyoshi Ohyama and Yoshinori Fujimoto*

Department of Chemistry and Materials Science, Tokyo Institute of Technology, Meguro, Tokyo 152-8551, Japan



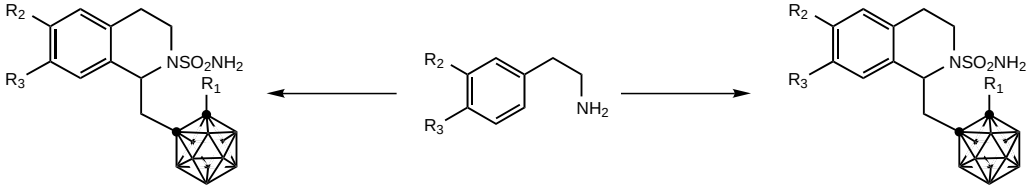
24-methylenecholesterol — 28-*si* face — clerosterol

A convenient synthesis of the novel carboranyl-substituted tetrahydroisoquinolines: application to the biologically active agent for BNCT

Tetrahedron Letters 43 (2002) 5483

Jong-Dae Lee,[a] Chai-Ho Lee,[b,*] Hiroyuki Nakamura,[c] Jaejung Ko[a,*] and Sang Ook Kang[a,*]

[a]*Department of Chemistry, Korea University, 208 Seochang, Chochiwon, Chung-nam 339-700, South Korea*
[b]*Department of Chemistry, Wonkwang University, Iksan, Jeonbuk 570-749, South Korea*
[c]*Department of Chemistry, Graduate School of Science, Tohoku University, Sendai 980-8578, Japan*



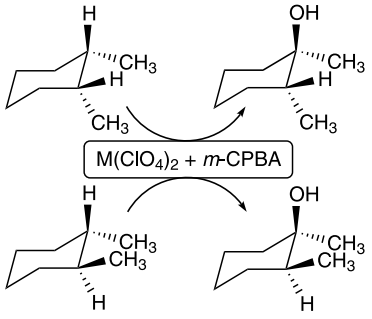
Stereoselective alkane hydroxylations by metal salts and *m*-chloroperbenzoic acid

Tetrahedron Letters 43 (2002) 5487

Wonwoo Nam,[a,*] Ju Yeon Ryu,[a] Inwoo Kim[a] and Cheal Kim[b]

[a]*Department of Chemistry and Division of Molecular Life Sciences (BK21), Ewha Womans University, Seoul 120-750, South Korea*
[b]*Department of Fine Chemistry, Seoul National University of Technology, Seoul 139-743, South Korea*

Simple metal (M = Mn, Fe, Co) perchlorates associated with *m*-chloroperbenzoic acid are able to conduct stereoselective alkane hydroxylations.

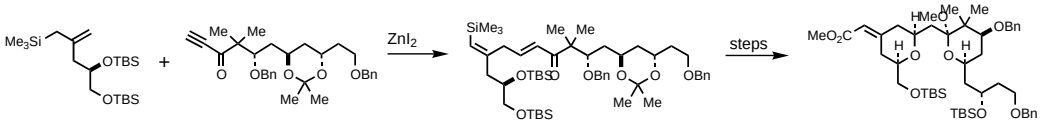


Synthesis of the C(1)–C(16) fragment of bryostatins

Tetrahedron Letters 43 (2002) 5491

Matthew O'Brien, Nicholas H. Taylor and Eric J. Thomas*

The Department of Chemistry, The University of Manchester, Manchester M13 9PL, UK



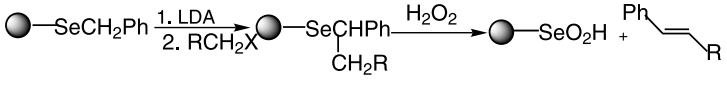
Polystyrene-supported benzyl selenide: an efficient reagent for highly stereocontrolled synthesis of olefins and allylic alcohols

Tetrahedron Letters 43 (2002) 5495

Xian Huang[a,b,*] and Weiming Xu[a]

[a]*Department of Chemistry, Zhejiang University (Xixi Campus), Hangzhou 310028, PR China*
[b]*State Key Laboratory of Organometallic Chemistry, Shanghai Institute of Organic Chemistry, Chinese Academy of Science, Shanghai 200032, PR China*

Polystyrene-supported benzyl selenide has been prepared. This novel reagent was treated with LDA to produce a selenium-stabilized carbanion, which reacted with alkyl halides and epoxides, followed by selenoxide *syn*-elimination, to give olefins and allylic alcohols, respectively.



An asymmetric synthesis of β-lactams: on the use of chiral oxazolidones in the Kinugasa reaction

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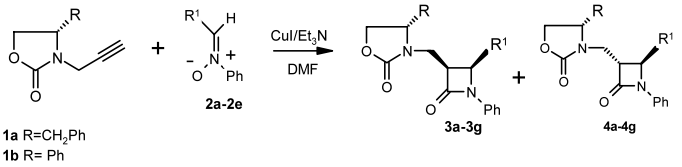
Amit Basak,[a,*] Subhash C. Ghosh,[a] Tandra Bhowmick,[a] Amit K. Das[b] and Valerio Bertolasi[c]

[a]*Department of Chemistry, Indian Institute of Technology, Kharagpur 721302, India*
[b]*Department of Biotechnology, Indian Institute of Technology, Kharagpur 721302, India*
[c]*Dipartimento di Chimica, Universita di Ferrara via L. Borsanio, 46, 44100 Ferrara, Italy*

Enantiopure *cis* and *trans* β-lactams **3a**–**e** and **4a**–**e**, respectively, have been synthesized via cycloaddition between the chiral oxazolidinyl propynes **1a**–**b** and nitrones **2a**–**d** in the presence of cuprous iodide (the Kinugasa reaction).



1a R=CH_2Ph
1b R= Ph