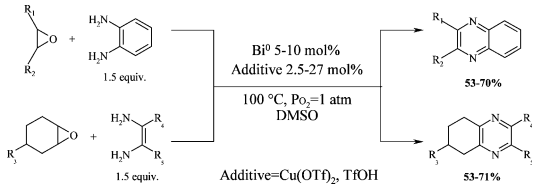
Direct and catalytic synthesis of quinoxaline derivatives from epoxides and ene-1,2-diamines

Tetrahedron Letters 43 (2002) 3971

Sylvain Antoniotti[a] and Elisabet Duñach[b,*]

[a]*Laboratoire Arômes, Synthèses et Interactions, UMR CNRS 6001, Université de Nice-Sophia Antipolis, Faculté des Sciences, Parc Valrose 06108, Nice cedex 2, France*

[b]*Laboratoire de Chimie Bio-Organique, UMR CNRS 6001, Université de Nice-Sophia Antipolis, Faculté des Sciences, Parc Valrose 06108, Nice cedex 2, France*

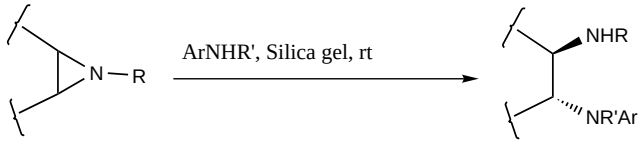


Silica gel induced cleavage of aziridines by aromatic amines under solvent free conditions

Tetrahedron Letters 43 (2002) 3975

R. Vijaya Anand, Ghanshyam Pandey and Vinod K. Singh*

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



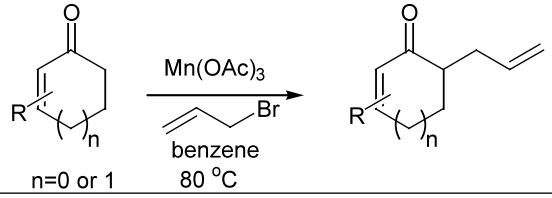
Mn(III)-mediated radical C–C bond formation: regioselective α′-allylation of α,β-unsaturated ketones

Tetrahedron Letters 43 (2002) 3977

Cihangir Tanyeli* and Devrim Özdemirhan

Department of Chemistry, Middle East Technical University, 06531 Ankara, Turkey

$Mn(OAc)_3$-mediated regioselective α′-allylation of α,β-unsaturated enones is described. α′-Allyl α,β-unsaturated enones are obtained through a radical process in good yields.

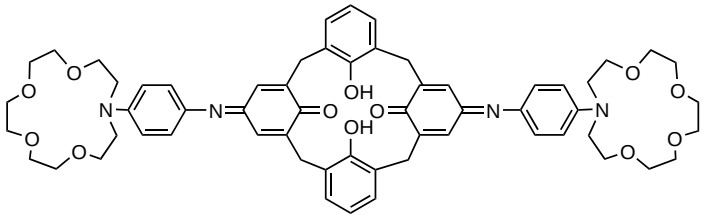


Selective chromogenic response via regioselective binding of cations: a novel approach in chemosensor design

Tetrahedron Letters 43 (2002) 3981

Demet Ataman and Engin U. Akkaya*

Department of Chemistry, Middle East Technical University, TR 06531 Ankara, Turkey



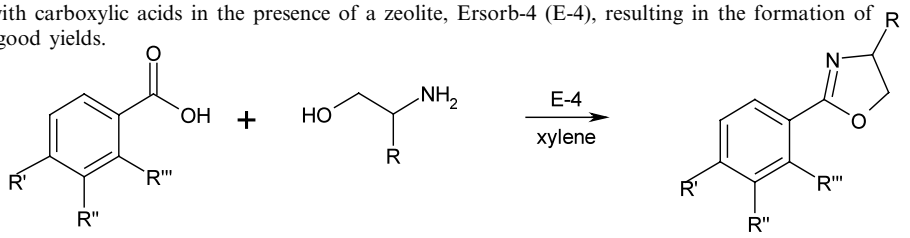
A simple synthesis of 2-substituted oxazolines and oxazines

Tetrahedron Letters 43 (2002) 3985

Agnieszka Cwik,[a] Zoltán Hell,[a,*] Adrienn Hegedüs,[a] Zoltán Finta[a] and Zoltán Horváth[b]

[a]*Department of Organic Chemical Technology, Budapest University of Technology and Economics, Budapest H-1521, Hungary*
[b]*Erdőkémia-ker Ltd, Gyömrői út 132-136, Budapest H-1108, Hungary*

β-Aminoalcohols react with carboxylic acids in the presence of a zeolite, Ersorb-4 (E-4), resulting in the formation of oxazoline derivatives in good yields.

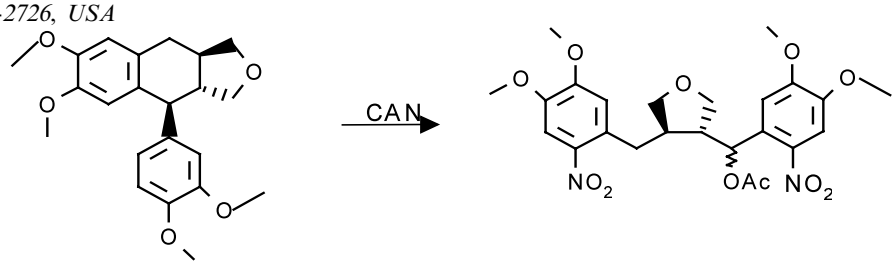


Structural requirements for *ipso*-nitration with cerium(IV) ammonium nitrate (CAN)

Tetrahedron Letters 43 (2002) 3989

H. Asghedom, R.T. LaLonde* and F. Ramdayal

Department of Chemistry, State University of New York, College of Environmental Science and Forestry (SUNY-ESF), Syracuse, NY 13210-2726, USA

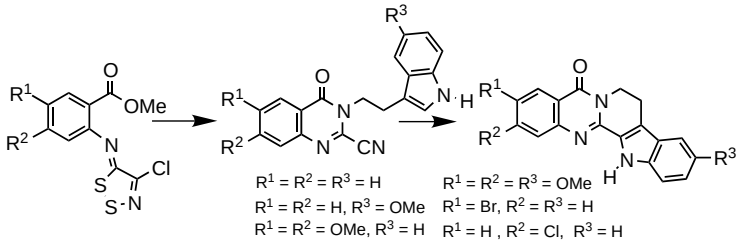


A short synthesis of quinazolinocarboline alkaloids rutaecarpine, hortiacine, euxylophoricine A and euxylophoricine D from methyl *N*-(4-chloro-5*H*-1,2,3-dithiazol-5-ylidene)anthranilates

Tetrahedron Letters 43 (2002) 3993

Pramod K. Mohanta and Kyongtae Kim*

School of Chemistry and Molecular Engineering, Seoul National University, Seoul 151-742, South Korea



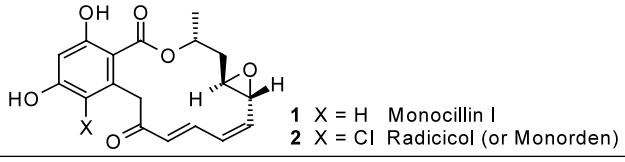
Convergent stereospecific total synthesis of monocillin I and radicicol: some simplifications and improvements

Tetrahedron Letters 43 (2002) 3997

Isabelle Tichkowsky and Robert Lett*

Unité Mixte CNRS-AVENTIS Pharma (UMR 26), 102, route de Noisy, 93235 Romainville, France

The stereospecific formation of the key-intermediate macrolide having the desired conjugated *E,Z*-dienone *trans*-epoxide has been achieved in a much higher yield, via a modification of our first synthesis. The configuration at 6′ of the intermediates is also shown to have no significant incidence on all the steps of the sequence.



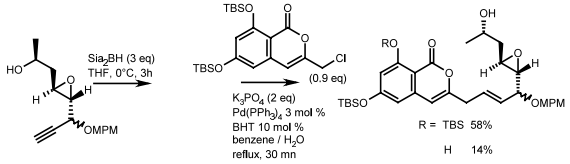
Improvements of the total synthesis of monocillin I and radicicol via Miyaura–Suzuki couplings

Tetrahedron Letters 43 (2002) 4003

Isabelle Tichkowsky and Robert Lett*

Unité Mixte CNRS-AVENTIS Pharma (UMR 26), 102, route de Noisy, 93235 Romainville, France

The palladium-catalyzed coupling of the vinyl-disiamylborane, formed in situ, affords two isocoumarins (R = TBS, H), which can be used for the synthesis of radicicol in 72% global overall yield from the alkyne. Advantages over related vinylboron or vinyltin couplings are discussed.



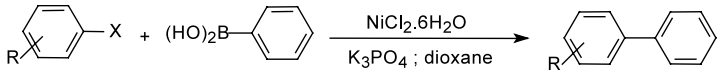
Suzuki cross-coupling of aryl halides with aryl boronic acids catalyzed by phosphine-free $NiCl_2 \cdot 6H_2O$

Tetrahedron Letters 43 (2002) 4009

Danilo Zim and Adriano L. Monteiro*

Laboratory of Molecular Catalysis, Instituto de Química, UFRGS, Av. Bento Gonçalves, 9500 Porto Alegre 91501-970 CP 15003 RS, Brazil

$NiCl_2 \cdot 6H_2O$, without any auxiliary ligand or reducing agent, is an active and simple catalyst precursor for the Suzuki cross-coupling reaction of aryl bromides and iodides.



Chemo-, regio- and stereoselective Mitsunobu reaction of unprotected pyrimidine bases with hydroxypyrrolidines

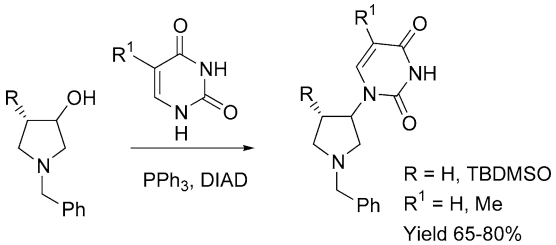
Tetrahedron Letters 43 (2002) 4013

Barbara Richichi,[b] Stefano Cicchi,[a] Ugo Chiacchio,[c] Giovanni Romeo[b,*] and Alberto Brandi[a,*]

[a]*Dipartimento di Chimica Organica 'Ugo Schiff', Università di Firenze, Polo Scientifico, Via della Lastruccia 13, I-50019 Sesto Fiorentino, Florence, Italy*

[b]*Dipartimento Farmaco-Chimico, Università di Messina, Viale Annunziata, Messina I-98100, Italy*

[c]*Dipartimento di Scienze Chimiche, Università di Catania, Viale A. Doria 6, Catania I-95125, Italy*



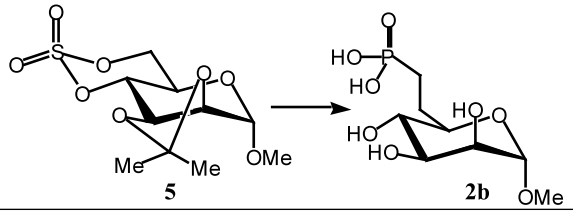
Synthesis of mannose-6-phosphate analogs: large-scale preparation of isosteric mannose-6-phosphonate via cyclic sulfate precursor

Tetrahedron Letters 43 (2002) 4017

Nikolai A. Khanjin and Jean-Louis Montero*

Laboratoire de Chimie Biomoléculaire, UM2, ENSCM, 8 Rue de l'Ecole Normale, 34296 Montpellier Cedex 5, France

A concise and efficient synthesis of the isosteric mannose-6-phosphonate **2b** is presented via cyclic sulfate **5**.



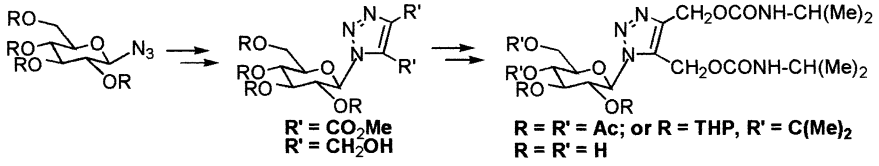
Synthesis of 1′-β-D-glucopyranosyl-1,2,3-triazole-4,5-dimethanol-4,5-bis(isopropylcarbamate) as potential antineoplastic agent

Tetrahedron Letters 43 (2002) 4021

Najim A. Al-Masoudi[a,*] and Yaseen A. Al-Soud[b]

[a]*Fakultät für Chemie, Universität Konstanz, Postfach 5560, D-78457 Konstanz, Germany*
[b]*Department of Chemistry, College of Science, University of Al al-Bayt, Al-Mafraq, Jordan*

The title compound was prepared from β-D-azidoglucose via two different routes with diverse yields.

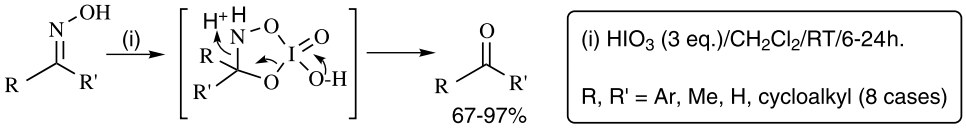


Effective 'non-aqueous hydrolysis' of oximes with iodic acid in dichloromethane under mild, heterogeneous conditions

Tetrahedron Letters 43 (2002) 4023

Sosale Chandrasekhar* and Kovuru Gopalaiah

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



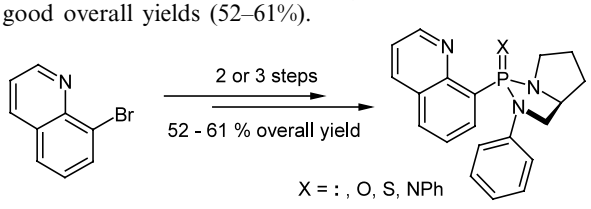
Totally diastereoselective synthesis of a new chiral quinoline diazaphospholidine ligand and its derivatives

Tetrahedron Letters 43 (2002) 4025

Guillaume Delapierre, Mathieu Achard and Gérard Buono*

ENSSPICAM, UMR 6516 'Synthèse, Catalyse et Chiralité', Av. Escadrille Normandie Niemen, F-13397 Marseille Cedex 20, France

A totally diastereoselective synthesis afforded a new chiral P,N ligand and its derivatives, respectively, in two or three steps from 8-bromoquinoline in good overall yields (52–61%).

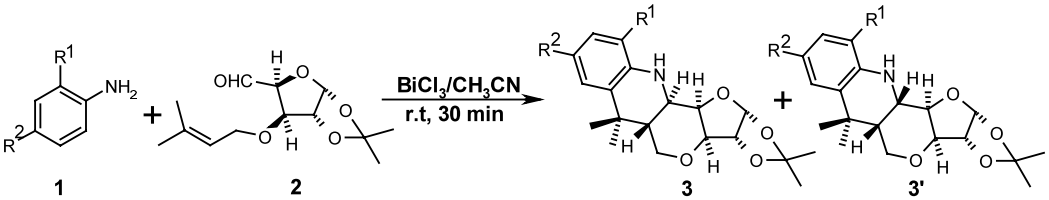


Stereoselective synthesis of octahydro-3b*H*-[1,3]dioxolo[4″,5″:4′,5′]-furo[2′,3′:5,6]pyrano[4,3-*b*]quinolines via intramolecular hetero-Diels–Alder reactions catalyzed by bismuth(III) chloride

Tetrahedron Letters 43 (2002) 4029

Gowravaram Sabitha,[a,*] E. Venkata Reddy,[a] J. S. Yadav,[a] K. V. S. Rama Krishna[b] and A. Ravi Sankar[b]

[a]*Organic Division I, Indian Institute of Chemical Technology, Hyderabad 500 007, India*
[b]*NMR Group, Indian Institute of Chemical Technology, Hyderabad 500 007, India*



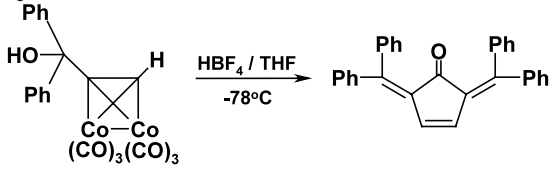
2,5-Bis(diphenylmethylene)-3-cyclopentenone: a solvent-dependent cobalt cluster mediated propargyl radical coupling process

Tetrahedron Letters 43 (2002) 4049

John H. Kaldis and Michael J. McGlinchey*

Department of Chemistry, McMaster University, Hamilton, Ontario, Canada L8S 4M1

Protonation of (1,1-diphenyl-2-propyn-1-ol)$Co_2(CO)_6$ with HBF_4 in THF affords the radical $(Co_2(CO)_6)[HC{\equiv}C\text{-}CPh_2^{\bullet}]$, which dimerizes at the methyne position; subsequent cyclization and carbonylation yields 2,5-bis-(diphenylmethylene)-3-cyclopentenone.

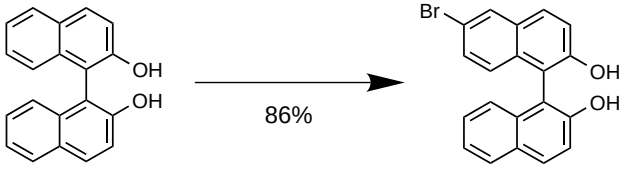


Efficient synthesis of 6-mono-bromo-1,1′-bi-2-naphthol

Tetrahedron Letters 43 (2002) 4055

Dongwei Cai,* Robert D. Larsen and Paul J. Reider

Department of Process Research, Merck Research Laboratories, PO Box 2000, Rahway, NJ 07065, USA



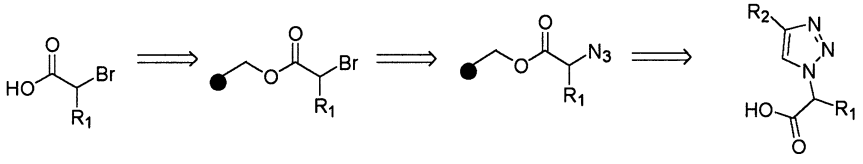
Solid-phase synthesis of functionalized 1,2,3-triazoles

Tetrahedron Letters 43 (2002) 4059

Benjamin E. Blass,* Keith R. Coburn, Amy L. Faulkner, Cheryl L. Hunn, Michael G. Natchus, M. Sharon Parker, David E. Portlock, Joshua S. Tullis and Richard Wood

Procter and Gamble Pharmaceuticals, Health Care Research Center, 8700 Mason Montgomery Road, Mason, OH 45040, USA

Functionalized 1,2,3-triazoles are prepared by 2+3 cycloaddition of resin bound α-azido esters with substituted alkynes. The reaction is regioselective when the electron-deficient alkyne methyl propiolate is used.

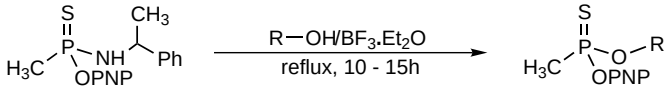


Synthesis of chiral 4-nitrophenyl alkyl methylphosphonothioates: $BF_3{\cdot}Et_2O$-catalyzed alcoholysis of phosphonamidothioates

Tetrahedron Letters 43 (2002) 4063

Putta Mallikarjuna Reddy and Ildiko M. Kovach*

Department of Chemistry, The Catholic University of America, Washington, DC 20064, USA



4a, **4b** **5a - f**

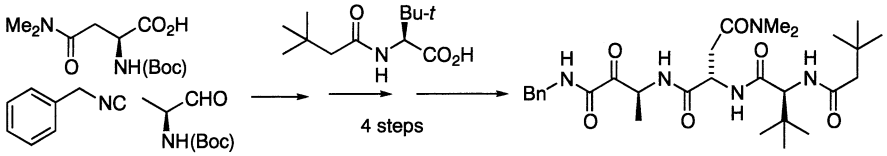
Short synthesis of protease inhibitors via modified Passerini condensation of *N*-Boc-α-aminoaldehydes

Tetrahedron Letters 43 (2002) 4067

Luca Banfi,* Giuseppe Guanti,* Renata Riva, Andrea Basso and Emiliano Calcagno

Dipartimento di Chimica e Chimica Industriale, via Dodecaneso 31, I-16146 Genoa, Italy

A straightforward entry into α-hydroxyamide or α-oxoamide protease inhibitors has been realised by modified Passerini condensation of *N*-Boc-α-aminoaldehydes.



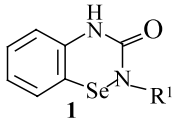
New heterocyclic selenenamides: 1,2,4-benzoselenadiazin-3(4*H*)-ones and 1,3,2-benzodiselenazoles

Tetrahedron Letters 43 (2002) 4071

Krystian Kloc, Jacek Młochowski,* Karol Osajda, Ludwik Syper and Halina Wójtowicz

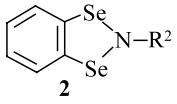
Institute of Organic Chemistry, Biochemistry and Biotechnology, Wrocław University of Technology, Wyb. Wyspiańskiego 27, 50-370 Wrocław, Poland

The syntheses of the hitherto unknown selenium and nitrogen containing ring systems **1** and **2** are described.



1

R^1= Pr, Bu, *c*-Hex



2

R^2= Pr, Bu, *i*-Bu, *t*-Bu, *sec*-Bu

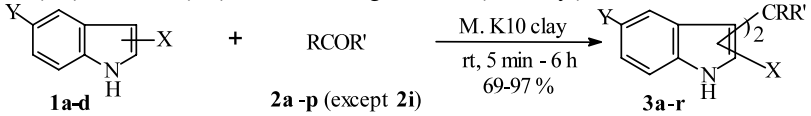
Dry reaction of indoles with carbonyl compounds on Montmorillonite K10 clay: a mild, expedient synthesis of diindolylalkanes and vibrindole A

Tetrahedron Letters 43 (2002) 4075

Manas Chakrabarty,[a,*] Nandita Ghosh,[a] Ramkrishna Basak[a] and Yoshihiro Harigaya[b]

[a]*Department of Chemistry, Bose Institute, 93/1, APC Road, Kolkata 700009, India*
[b]*School of Pharmaceutical Sciences, Kitasato University, Minato-ku, Tokyo 108, Japan*

Dry reaction of indoles **1a**–**d** with carbonyl compounds **2a**–**p** on clay furnished vibrindole A **3a**, other 3,3′-diindolylalkanes **3b**–**h**, **j**–**r**, their 2,2′-(**5**,**7**) and 2,3′-(**6**,**8**) isomers along with tris(3-indolyl)methane **4** in an isolated case.



1a-d X=H, Me; Y=H, Br

2a -p (except **2i**) R/R'=H, Alkyl, Aryl, Cycloalkyl

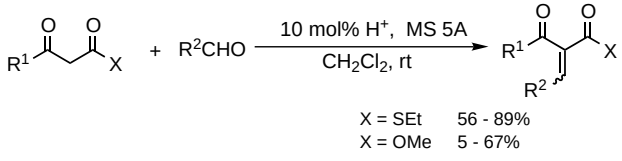
3a-r (except **3i**)

β-Ketothioester as a reactive Knoevenagel donor

Tetrahedron Letters 43 (2002) 4079

Yujiro Hayashi,* Yuji Miyamoto and Mitsuru Shoji

Department of Industrial Chemistry, Faculty of Engineering, Science University of Tokyo, Kagurazaka, Shinjuku-ku, Tokyo 162-8601, Japan



X = SEt 56 - 89%
X = OMe 5 - 67%

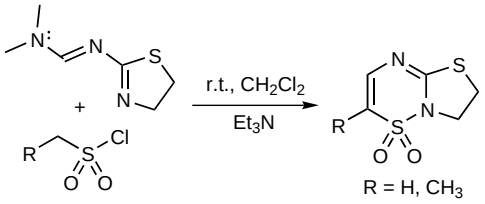
Synthesis of novel 6,7-dihydrothiazolo[3,2-*b*]-1,2,4-thiadiazine 1,1-dioxides

Tetrahedron Letters 43 (2002) 4099

Cyrille Landreau, David Deniaud,* Alain Reliquet and Jean Claude Meslin

Laboratoire de Synthèse Organique, UMR CNRS 6513, Faculté des Sciences et des Techniques, 2, Rue de la Houssinière BP 92 208, F-44322 Nantes Cedex 03, France

A mild synthesis of 6,7-dihydrothiazolo[3,2-*b*]-1,2,4-thiadiazine 1,1-dioxides involving a thiazolinic diazadiene and sulfonyl chlorides is reported.

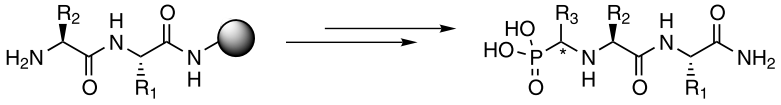


An expedient method for the solid-phase synthesis of α-aminoalkyl phosphonopeptides

Tetrahedron Letters 43 (2002) 4103

Markéta Rinnová, Adel Nefzi and Richard A. Houghten*

Torrey Pines Institute for Molecular Studies, 3550 General Atomics Court, San Diego, CA 92121, USA



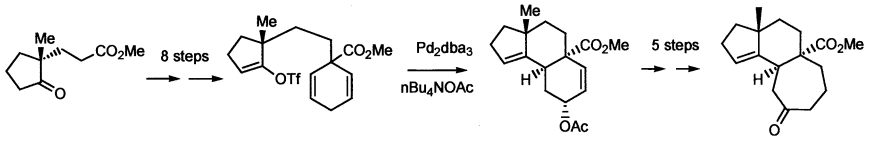
Synthetic studies toward cyathin diterpenoids: approach to the tricyclic system through intramolecular Heck-type cyclization

Tetrahedron Letters 43 (2002) 4107

Cyrille Thominiaux,[a] Angèle Chiaroni[b] and Didier Desmaële[a,*]

[a]*Unité de Chimie Organique Associée au CNRS, Faculté de Pharmacie, 5, rue J.-B. Clément, 92290 Châtenay-Malabry, France*

[b]*Institut de Chimie des Substances Naturelles, CNRS, Avenue de la Terrasse, 91198 Gif sur Yvette, France*



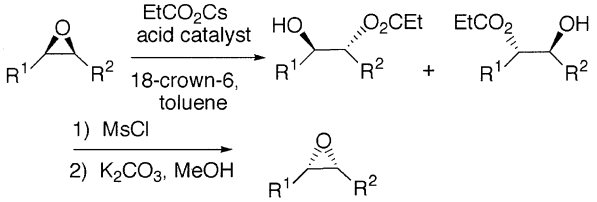
Cesium propionate as an epoxide cleavage and inversion reagent

Tetrahedron Letters 43 (2002) 4111

David O. Arbelo and José A. Prieto*

Department of Chemistry, University of Puerto Rico, Río Piedras Campus, PO Box 23346, San Juan, Puerto Rico 00931-3346, USA

A new epoxide inversion method, based on cesium propionate as the epoxide-cleaving agent, was developed. A series of inverted epoxides, including 3,4-epoxy alcohols were prepared.

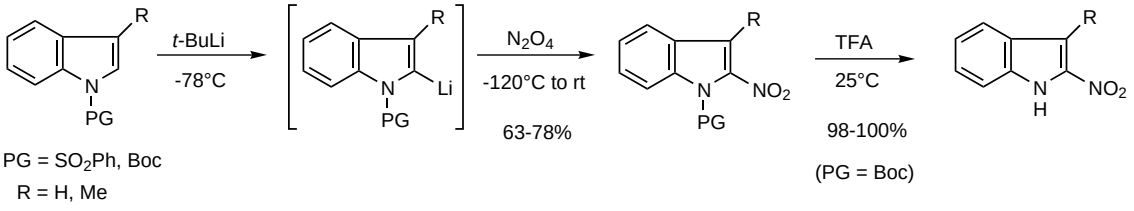


A new synthesis of 2-nitroindoles

Tetrahedron Letters 43 (2002) 4115

Jun Jiang and Gordon W. Gribble*

Department of Chemistry, Dartmouth College, Hanover, NH 03755, USA



Synthesis of *gem*-difluoroamines from allylic or halogenoamines

Tetrahedron Letters 43 (2002) 4119

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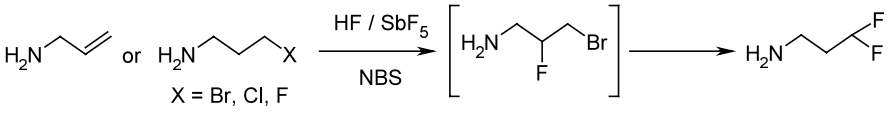

Synthesis of arylhalonium compounds [including (4-methylphenyl) phenylfluoronium] by the nuclear–chemical method

Tetrahedron Letters 43 (2002) 4123

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