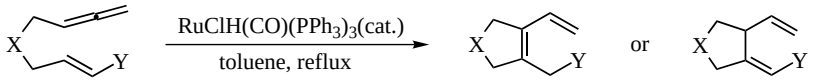
Ru-Catalyzed cycloisomerization of δ-enallenes to form cyclic 1,3-dienes or 1,4-dienes

Tetrahedron Letters 43 (2002) 6693

Suk-Ku Kang,* Byung-Su Ko and Dong-Min Lee

Department of Chemistry and Lab for Metal-Catalyzed Reactions, Sungkyunkwan University, Suwon 440-746, Republic of Korea



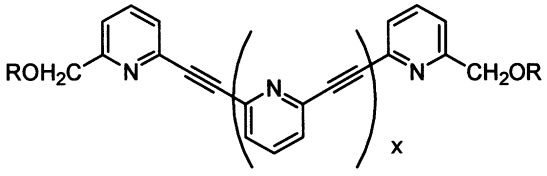
X = NTs, O, $C(CO_2Et)_2$, N*t*BOC, etc.
Y = H, CO_2Et

Synthesis of oligo(2-ethynylpyridines): novel building blocks for supramolecular systems

Tetrahedron Letters 43 (2002) 6697

Tomikazu Kawano,* Takahiro Kato, Chong-Xu Du and Ikuo Ueda*

The Institute of Scientific and Industrial Research, Osaka University, 8-1 Mihogaoka, Ibaraki, Osaka 567-0047, Japan



1a-i: x = 1, 2, 3 or 4, R = Me, TBDMS or (L)-menthyl

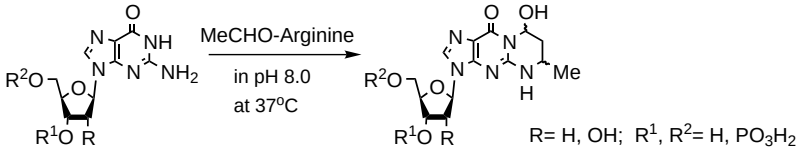
Smooth and selective formation of the cyclic 1,N^2-propano adducts in the reactions of guanine nucleosides and nucleotides with acetaldehyde

Tetrahedron Letters 43 (2002) 6701

Magoichi Sako,* Isamu Yaekura and Yoshihiro Deyashiki

Gifu Pharmaceutical University, 5-6-1, Mitahora-higashi, Gifu 502-8585, Japan

The treatment of guanosines with excess acetaldehyde in pH 8.0 buffer containing a basic amino acid resulted in the smooth and selective formation of the corresponding cyclic 1,N^2-propano adducts even under mild conditions.



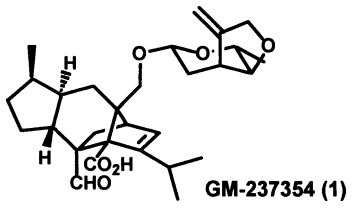
A novel approach to the stereoselective semi-synthesis of GM-237354 by employing a highly β-selective glycosylation

Tetrahedron Letters 43 (2002) 6705

Masami Arai, Satoru Kaneko* and Toshiyuki Konosu

Medicinal Chemistry Research Laboratories, Sankyo Co., Ltd., 2-58 Hiromachi 1-chome, Shinagawa-ku, Tokyo 140-8710, Japan

Synthesis of GM-237354 (**1**), a potent inhibitor of fungal elongation factor 2, was achieved starting from sordaricin using a highly stereoselective glycosylation reaction as a key step. Glycosylation utilizing 2-deoxy-2-iodo-glycopyranosyl acetate **6a** gave glycoside **8** as a single product, and **8** was easily converted into **1**.

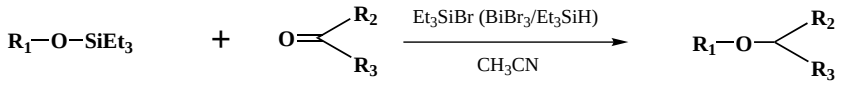


In-situ generation of Et_3SiBr from $BiBr_3$ and Et_3SiH and its use in preparation of dialkyl ethers

Tetrahedron Letters 43 (2002) 6709

Joginder S. Bajwa,* Xinglong Jiang, Joel Slade, Kapa Prasad, Oljan Repič and Thomas J. Blacklock

Process R&D, Chemical and Analytical Development, Novartis Institute for Biomedical Research, One Health Plaza, East Hanover, NJ 07936, USA

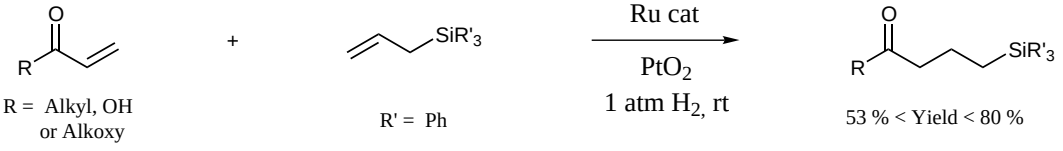


Tandem reaction by using compatible catalysts: cross-metathesis reaction and hydrogenation

Tetrahedron Letters 43 (2002) 6715

Janine Cossy,* Frédéric C. Bargiggia and Samir BouzBouz

Laboratoire de Chimie Organique associé au CNRS, ESPCI, 10 rue Vauquelin, 75231 Paris Cedex 05, France

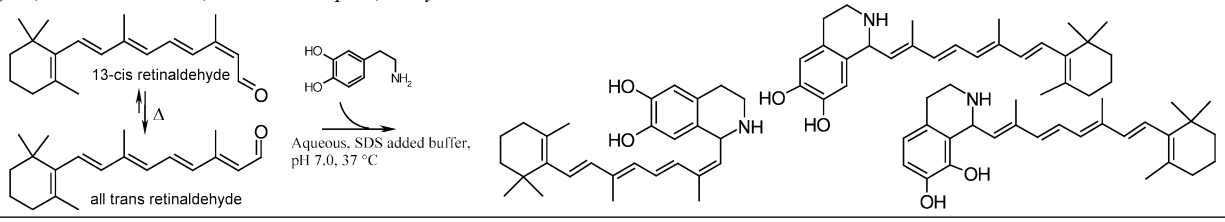


Formation of novel tetrahydroisoquinoline retinoids by Pictet–Spengler reaction of dopamine and retinaldehyde under conditions of relevance to biological environments

Tetrahedron Letters 43 (2002) 6719

Alessandro Pezzella* and Giuseppe Prota

Department of Organic Chemistry and Biochemistry, University of Naples "Federico II" Complesso Universitario Monte S. Angelo, Via Cinthia 45, I-80126 Naples, Italy



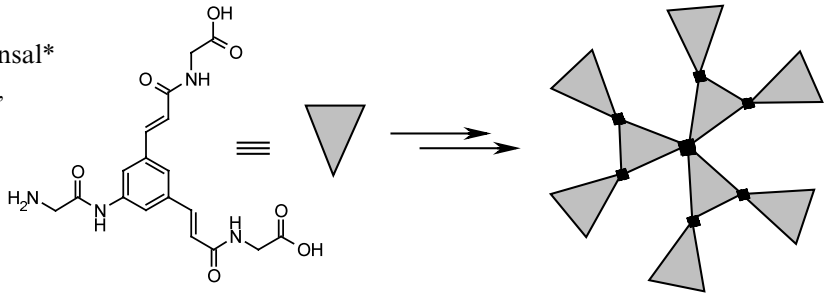
Synthesis of a dendron and dendrimer consisting of MALDI matrix like branching units

Tetrahedron Letters 43 (2002) 6723

Hendrik Neubert, Andrew T. Kicman, David A. Cowan and Sukhvinder S. Bansal*

Drug Control Centre and Department of Pharmacy, King's College London, Franklin-Wilkins Building, 150 Stamford Street, London SE1 9NN, UK

Design and synthesis of a novel dendron and dendrimer with potential application in MALDI mass spectrometry is described.

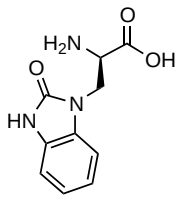


Tetrahedron Letters 43 (2002) 6729

(1-Benzimidazolonyl)alanine (Bia): preliminary investigations into a potential tryptophan mimetic

Vincent J. Huber,* Thomas W. Arroll, Christopher Lum, Burton A. Goodman and Hiroshi Nakanishi

Molecumetics Ltd., 2023 120th Avenue NE, Bellevue, WA 98005, USA



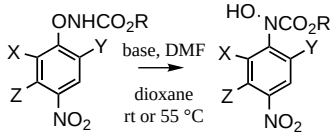
(1-Benzimidazolonyl)alanine

Tetrahedron Letters 43 (2002) 6735

Novel, base-promoted reaction of *N*-alkoxycarbonyl-*O*-(halosubstituted 4-nitrophenyl)hydroxylamines

David C. Boyles, Timothy T. Curran,* Derek Greene, Dainius Macikenas and Roger V. Parlett, IV

Pfizer Global Research and Development, Pharmaceutical Sciences, 2800 Plymouth Road, Ann Arbor, MI 48105, USA



Base-promoted reactions of *N*-alkoxycarbonyl-*O*-(nitrophenyl)hydroxylamines which contain a halogen substituent on the aromatic ring are described. This reaction is promoted using carbonate or bicarbonate base and provides *N*-alkoxycarbonyl-*N*-hydroxyanilines. A crossover experiment showed some scrambling, suggesting the reaction can be inter- and intramolecular. *N*-Boc-(2,6-di-Cl-4-NO_2-phenyl)-hydroxylamine was found to *N*-Boc aminate Bn_2NH to form the protected hydrazine.

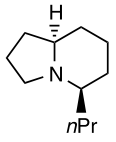
Tetrahedron Letters 43 (2002) 6739

A new and efficient synthesis of (−)-indolizidine 167B by tandem metathesis

Jan Zaminer, Christian Stapper and Siegfried Blechert*

Institut für Chemie, Technische Universität Berlin, Strasse des 17. Juni 135, D-10623 Berlin, Germany

An enantioselective synthesis of the natural alkaloid (−)-indolizidine 167B via a ruthenium-catalysed tandem ring-rearrangement metathesis (RRM) is described.



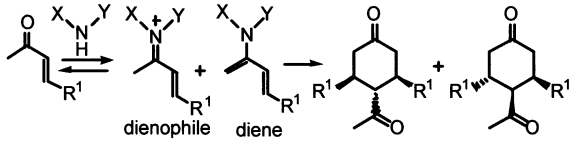
Indolizidine 167B

Tetrahedron Letters 43 (2002) 6743

Amine-catalyzed direct self Diels–Alder reactions of α,β-unsaturated ketones in water: synthesis of pro-chiral cyclohexanones

D. B. Ramachary, Naidu S. Chowdari and Carlos F. Barbas, III*

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

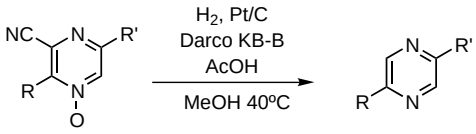


Reductive decyanation of pyrazinecarbonitriles

Tetrahedron Letters 43 (2002) 6747

Jennifer Albaneze-Walker,* Matthew Zhao, Melinda D. Baker, Peter G. Dormer and James McNamara

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



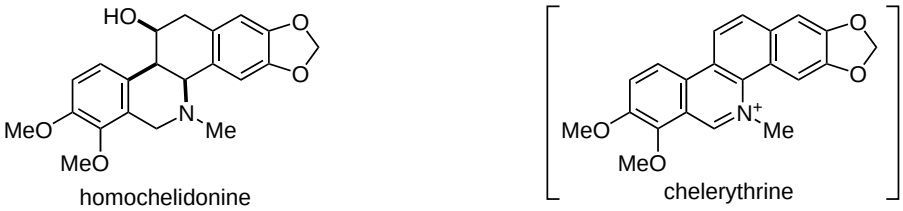
Stereoselective total synthesis of (±)-homochelidonine

Tetrahedron Letters 43 (2002) 6751

Makoto Yoshida, Toshiko Watanabe and Tsutomu Ishikawa*

Graduate School of Pharmaceutical Sciences, Chiba University, 1-33 Yayoi, Inage, Chiba 263-8522, Japan

Stereoselective total synthesis of (±)-homochelidonine using the same key intermediate for chelerythrine was described.

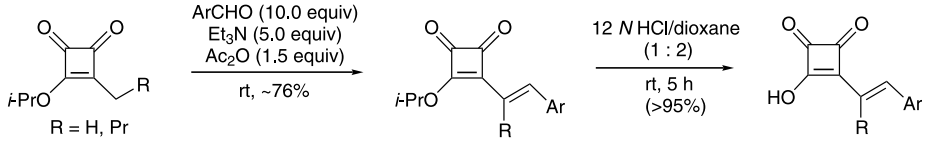


1,2-Dioxo-3-isopropyloxy-4-methyl-3-cyclobutene as a nucleophilic synthon. Synthesis of Sq-containing cinnamic acid derivatives

Tetrahedron Letters 43 (2002) 6755

Tetsuro Shinada,* Yuuki Ooyama, Ken-ichi Hayashi and Yasufumi Ohfune*

Graduate School of Science, Osaka City University, Sugimoto, Sumiyoshi, Osaka 558-8585, Japan



Self-assembly of a tetrapeptide in which a unique supramolecular helical structure is formed via intermolecular hydrogen bonding in the solid state

Tetrahedron Letters 43 (2002) 6759

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

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

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

Selective enzymatic epoxidation of dienes: generation of functional enantiomerically enriched diene monoepoxy monomers

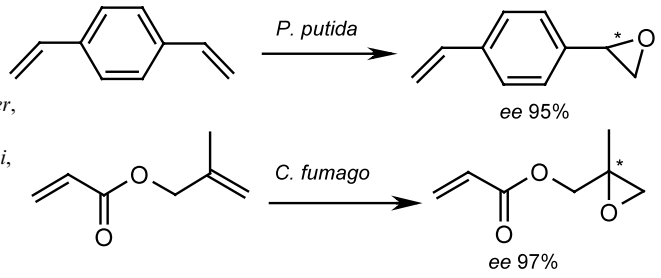
Tetrahedron Letters 43 (2002) 6763

Shanghui Hu,[a] Pankaj Gupta,[b] Ashok K. Prasad,[b] Richard A. Gross[a,*] and Virinder S. Parmar[a,b,*]

[a]*NSF Center for Biocatalysis and Bioprocessing of Macromolecules, Department of Chemistry, Polytechnic University, 06 Metrotech Center, Brooklyn, NY 11201, USA*

[b]*Bioorganic Laboratory, Department of Chemistry, University of Delhi, Delhi 110 007, India*

Oxidases from *Pseudomonas putida* and chloroperoxidase from *Caldariomyces fumago* have been used for highly enantioselective syntheses of diene monoepoxides, useful precursors for the preparation of chiral polymeric materials.



The first synthesis and X-ray crystal structure of tetrahydropyrrolo[2,3-*d*]azocines

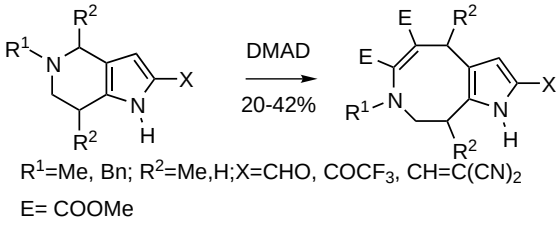
Tetrahedron Letters 43 (2002) 6767

Alexey V. Varlamov,[a] Tatiana N. Borisova,[a] Leonid G. Voskressensky,[a,*] Tatiana A. Soklakova,[a] Larisa N. Kulikova,[a] Alexey I. Chernyshev[a] and Grigory G. Alexandrov[b]

[a]*Organic Chemistry Department of the Russian Peoples Friendship University, 6, Miklukho-Maklayia St., Moscow 117198, Russia*

[b]*N.S. Kurnakov Institute of General and Inorganic Chemistry, Russian Academy of Sciences, Leninsky Prospekt 31, Moscow GSP-1 119991, Russia*

Tetrahydropyrrolo[3,2-*c*]pyridines upon reaction with DMAD in acetonitrile or DMSO at rt underwent ring expansion, affording tetrahydropyrrolo[2,3-*d*]azocines.



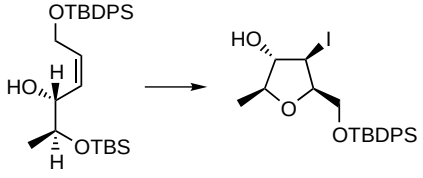
Stereocontrol of 5-*endo*-trig cyclisations by hydroxyl groups: a formal short synthesis of (+)-muscarine

Tetrahedron Letters 43 (2002) 6771

David W. Knight* and Emily R. Staples

Chemistry Department, Cardiff University, PO Box 912, Cardiff CF10 3TB, UK

A short enantioselective synthesis of (+)-muscarine is described in which the key step features a 5-*endo*-trig iodocyclisation of the *anti*-(*Z*)-isomer shown.

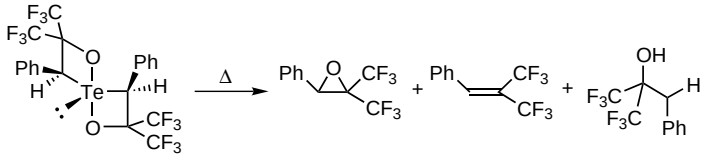


Synthesis, structure, and thermolysis of a novel spirotellurane bearing two 1,2-oxatelluretane rings, 1,5-dioxa-4λ⁴-telluraspiro-[3.3]heptane: oxirane and olefin formation reactions

Tetrahedron Letters 43 (2002) 6775

Naokazu Kano, Tatsuhisa Takahashi and Takayuki Kawashima*

Department of Chemistry, Graduate School of Science, The University of Tokyo, 7-3-1 Hongo, Bunkyo-ku, Tokyo 113-0033, Japan



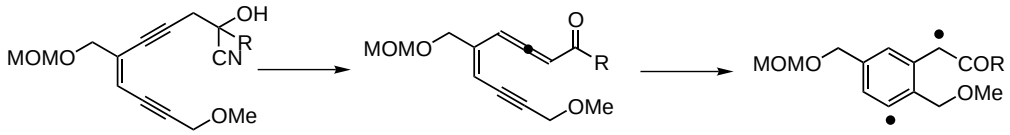
Synthesis of enediyne model compounds possessing a cyanohydrin moiety as a triggering device

Tetrahedron Letters 43 (2002) 6779

Ichiro Suzuki,* Yuko Tsuchiya, Akira Shigenaga, Hisao Nemoto and Masayuki Shibuya

Faculty of Pharmaceutical Sciences, University of Tokushima, Sho-machi 1-78, Tokushima 770-8505, Japan

Enediyne model compounds which produce dehydrotoluene diradicals possessing a highly radical character via enyne–allenylketone intermediates were developed.



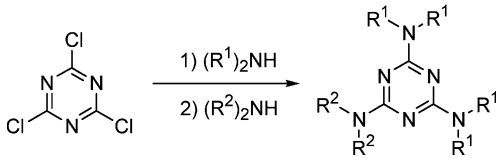
New polydentate and polynucleating *N*-donor ligands from amines and 2,4,6-trichloro-1,3,5-triazine

Tetrahedron Letters 43 (2002) 6783

Paul de Hoog, Patrick Gamez,* Willem L. Driessen and Jan Reedijk

Leiden Institute of Chemistry, Gorlaeus Laboratories, Leiden University, PO Box 9502, 2300 RA Leiden, Netherlands

Four 1,3,5-triazine-containing multidentate polynucleating *N*-ligands have been prepared in high yields using a straightforward and versatile synthetic method.



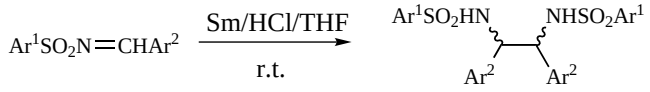
A novel method for the synthesis of vicinal disulfonamides promoted by metallic samarium in aqueous media

Tetrahedron Letters 43 (2002) 6787

Xi Liu,[a] Yunkui Liu[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*

A new method to synthesize vicinal disulfonamides by reductive coupling of *N*-sulfonylimines in Sm/HCl/THF has been developed.



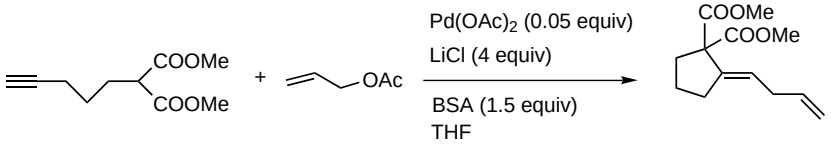
1 **2** (*dl*/*meso*)

Palladium(II)-catalyzed coupling reactions of alkynes and allylic compounds initiated by intramolecular carbopalladation of alkynes

Tetrahedron Letters 43 (2002) 6791

Guosheng Liu and Xiyan Lu*

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

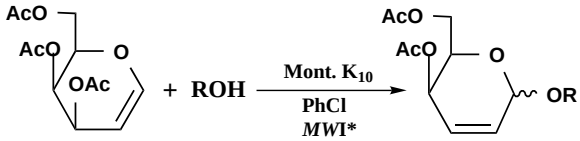


Microwave-induced, Montmorillonite K10-catalyzed Ferrier rearrangement of tri-*O*-acetyl-D-galactal: mild, eco-friendly, rapid glycosidation with allylic rearrangement

Tetrahedron Letters 43 (2002) 6795

Bhagavathy Shanmugasundaram,[a,b] Ajay K. Bose[b] and Kalpattu K. Balasubramanian[a,*]

[a]*Indian Institute of Technology Madras, Chennai 600 036, India*
[b]*Stevens Institute of Technology, Hoboken, NJ 07030, USA*



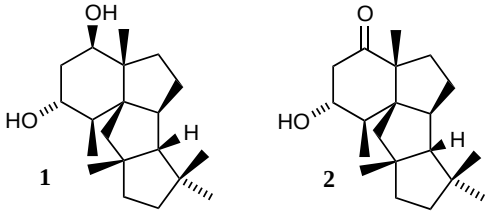
Novel diterpenes with potent conidiation inducing activity

Tetrahedron Letters 43 (2002) 6799

Tomás Roncal,[a] Shandra Cordobés,[a] Unai Ugalde,[a] Yanhong He[b] and Olov Sterner[b,*]

[a]*Unidad de Bioquímica 2, Facultad de Química, Universidad del País Vasco, PO Box 1072, 20080 San Sebastian, Spain*
[b]*Department of Organic and Bioorganic Chemistry, Lund University, PO Box 124, S-221 00 Lund, Sweden*

Conidiogenol **1** and conidiogenone **2** are potent and selective inducers of conidiogenesis in *Penicillium cyclopium* in liquid culture.

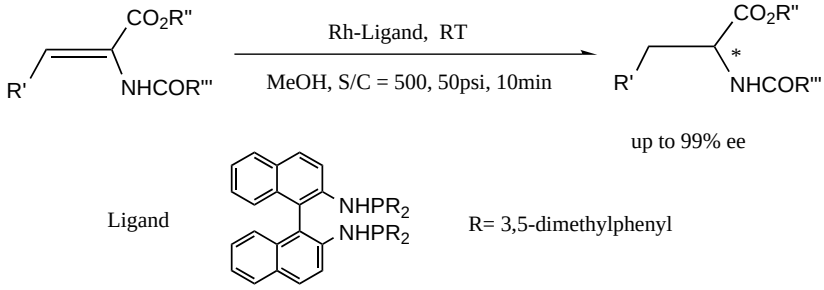


Rhodium-catalyzed asymmetric hydrogenation with aminophosphine ligands derived from 1,1′-binaphthyl-2,2′-diamine

Tetrahedron Letters 43 (2002) 6803

Rongwei Guo, Xingshu Li, Jing Wu, Wai Him Kwok, Jian Chen, Michael C. K. Choi* and Albert S. C. Chan*

Open Laboratory of Chirotechnology of the Institute of Molecular Technology for Drug Discovery and Synthesis and Department of Applied Biology and Chemical Technology, The Hong Kong Polytechnic University, Hong Kong



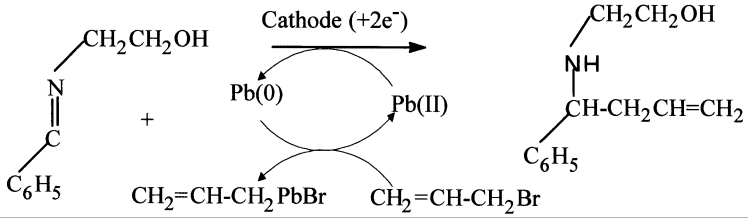
Electrochemical reductive allylation of *N*-benzylideneethanolamine

Tetrahedron Letters 43 (2002) 6807

F. Nawaz Khan,[a] R. Jayakumar[b] and C. N. Pillai[a,*]

[a]*Central Electrochemical Research Institute, Chennai Unit, CSIR Madras Complex, Tharamani, Chennai 113, India*
[b]*Central Leather Research Institute, Bio-Organic Laboratory, Adayar, Chennai 20, India*

Electrochemical reductive allylation of *N*-benzylideneethanolamine by allyl bromide mediated by a Pb(II)/b(0) redox couple is reported.

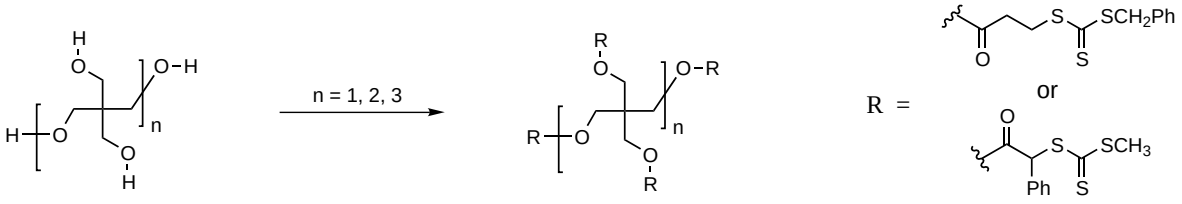


Multiarm organic compounds for use as reversible chain-transfer agents in living radical polymerizations

Tetrahedron Letters 43 (2002) 6811

Roshan T. A. Mayadunne,* Graeme Moad and Ezio Rizzardo

Cooperative Research Center for Polymers, CSIRO Molecular Science, Bag 10, Clayton South, Victoria 3169, Australia

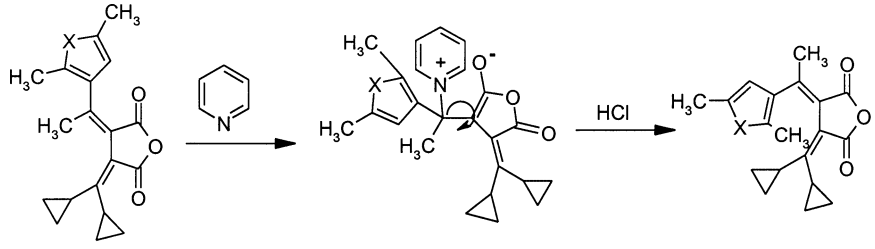


A convenient method for conversion of the *Z*-isomer to the *E*-isomer from a mixture containing both isomers of fulgides

Tetrahedron Letters 43 (2002) 6815

Abdullah Mohamed Asiri

Chemistry Department, Faculty of Science, King Abdul Aziz University, Jeddah 21413, PO Box 80203, Saudi Arabia



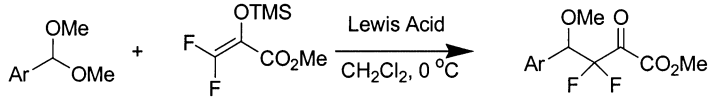
1-*Z* **2** **1-*E***

Methyl 3,3-difluoro-2-trimethylsilyloxyacrylate: preparation and Mukaiyama-type aldol condensation as a novel route to β,β-difluoro-α-keto ester derivatives

Tetrahedron Letters 43 (2002) 6819

Biao Jiang,* Xiaobing Zhang and Guoqiang Shi

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



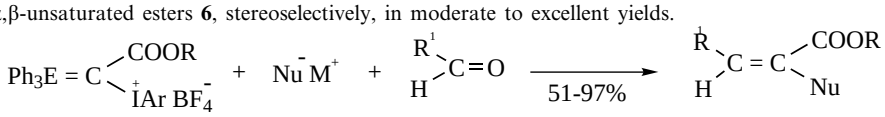
Tandem reaction of α-hypervalent iodo functionalized phosphonium and arsonium ylides as umpolung reagents

Tetrahedron Letters 43 (2002) 6823

Zhi-Zhen Huang, Xiao-Chun Yu and Xian Huang*

Department of Chemistry, Zhejiang University, Hangzhou, 310028, State Key Laboratory of Organoelemental Chemistry, Nankai University, Tianjin 300071, China

α-Hypervalent iodo functionalized phosphorus and arsonium ylides **2** can be used as umpolung ylides to react with nucleophiles to give α-heteroatom substituted ylides **4** in good yields. A tandem sequence of nucleophilic substitution then Wittig reaction occurs smoothly to form (*Z*)-α-halo-α,β-unsaturated esters **6**, stereoselectively, in moderate to excellent yields.



2 **3** **5** **6**

E = P, As.

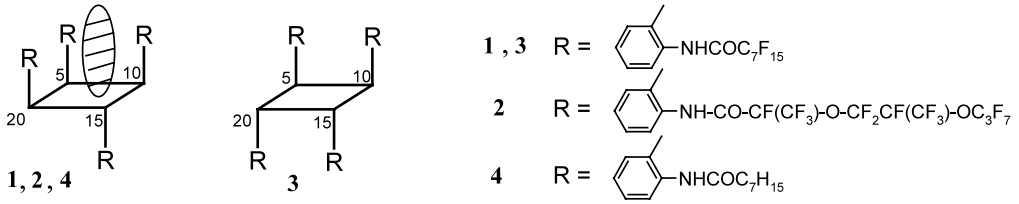
Z/E = 85/15-91/9

Novel binding mode for fluorinated porphyrins: synthesis and fluorophilic affinity of stable atropoisomers of 5,10,15,20-tetrakis[2-(perfluoroacyl)aminophenyl]-21*H*,23*H*-porphyrins

Tetrahedron Letters 43 (2002) 6827

Oldřich Paleta,[a,*] Michal Beneš,[a] Jitka Koutníková[b] and Vladimír Král[b]

[a]*Department of Organic Chemistry, Prague Institute of Chemical Technology, Technická 5, 16628 Prague 6, Czech Republic*
[b]*Department of Analytical Chemistry, Prague Institute of Chemical Technology, Technická 5, 16628 Prague 6, Czech Republic*

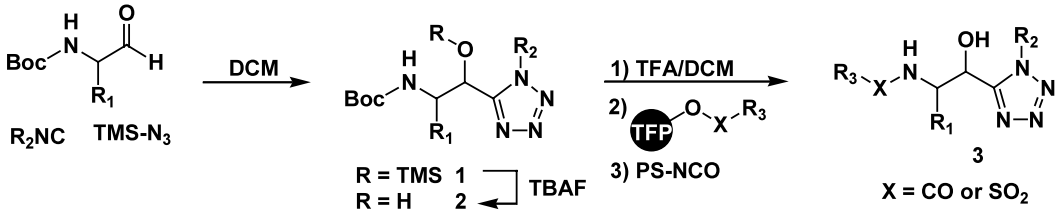


Rapid generation of *cis*-constrained norstatine analogs using a $TMSN_3$-modified Passerini MCC/*N*-capping strategy

Tetrahedron Letters 43 (2002) 6833

Thomas Nixey* and Christopher Hulme

Department of Small Molecule Drug Discovery, AMGEN, One AMGEN Center Drive, Thousand Oaks, CA 91320, USA

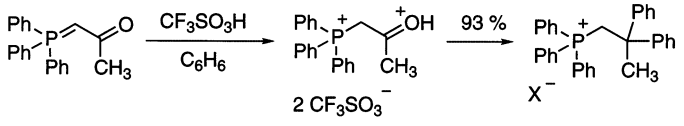


Reactive, dicationic electrophiles: electrophilic activation involving the phosphonium group

Tetrahedron Letters 43 (2002) 6837

Yun Zhang, Sharon L. Aguirre and Douglas A. Klumpp*

Department of Chemistry, California State Polytechnic University, 3801 West Temple Avenue, Pomona, CA 91768, USA

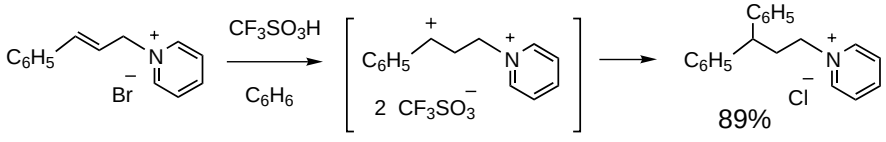


Dicationic electrophilic systems: the activation of carbocations and carboxonium ions by pyridinium groups and related heterocycles

Tetrahedron Letters 43 (2002) 6841

Yun Zhang and Douglas A. Klumpp*

Department of Chemistry, California State Polytechnic University, 3801 West Temple Avenue, Pomona, CA 91768, USA

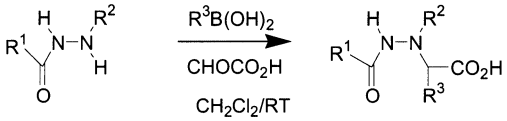


Petasis boronic acid–Mannich reactions of substituted hydrazines: synthesis of α-hydrazinocarboxylic acids

Tetrahedron Letters 43 (2002) 6845

David E. Portlock,[a,*] Dinabandhu Naskar,[b] Laura West[a] and Min Li[a]

[a]*Combinatorial Chemistry Section, Procter & Gamble Pharmaceuticals, Health Care Research Center, 8700 Mason Montgomery Road, Mason, OH 45040, USA*
[b]*Chembiotek Research International, Block BN, Sector-V, Salt Lake City, Calcutta 700 091, India*



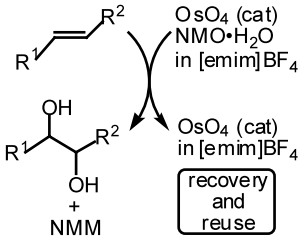
OsO_4-catalyzed dihydroxylation of olefins in ionic liquid [emim]BF_4: a recoverable and reusable osmium

Tetrahedron Letters 43 (2002) 6849

Reiko Yanada* and Yoshiji Takemoto

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

Immobilized OsO_4 in ionic liquid can be recovered and reused with NMO·H_2O for dihydroxylation of olefins.

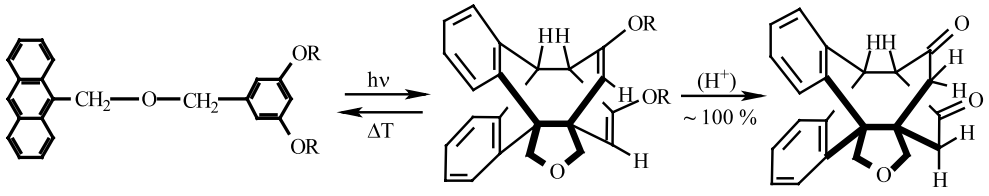


Intramolecular photocycloaddition of anthracene and benzene ring systems

Tetrahedron Letters 43 (2002) 6853

Derong Cao,[a] Silvia Dobis[b] and Herbert Meier[b,*]

[a]*LCLC, Guangzhou Institute of Chemistry, Chinese Academy of Science, China*
[b]*Institute of Organic Chemistry, University of Mainz, Duesbergweg 10-14, 55099 Mainz, Germany*



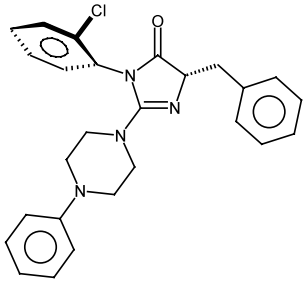
Solid-phase synthesis of 2,3,5-trisubstituted 4*H*-imidazolones

Tetrahedron Letters 43 (2002) 6857

Udo E. W. Lange*

Agrochemicals Research, Combinatorial Chemistry, GVA-B9, BASF AG, D-67056 Ludwigshafen, Germany

A novel synthesis of 4*H*-imidazolones on Merrifield resin is presented and the formation of atropo-isomers is discussed.

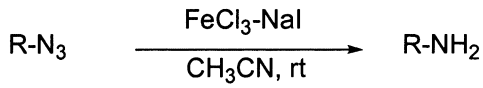


Mild and efficient reduction of azides to amines: synthesis of fused [2,1-*b*]quinazolinones

Tetrahedron Letters 43 (2002) 6861

Ahmed Kamal,* K. Venkata Ramana, Hari Babu Ankati and A. Venkata Ramana

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

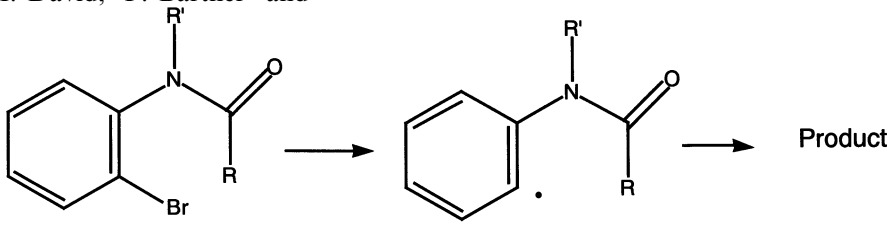


Synthesis of heterocyclic compounds using radical reactions

Tetrahedron Letters 43 (2002) 6865

A. K. Ganguly,[a,*] C. H. Wang,[a] M. David,[a] P. Bartner[b] and T. M. Chan[b]

[a]*Stevens Institute of Technology, Hoboken, NJ 07030, USA*
[b]*Schering-Plough Research Institute, Kenilworth, NJ 07033-1300, USA*



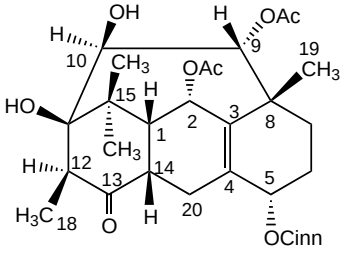
(1) (2)

A novel minor metabolite (taxane?) from *Taxus canadensis* needles

Tetrahedron Letters 43 (2002) 6869

Qing Wen Shi,[a] Françoise Sauriol,[b] Orval Mamer[c] and Lolita O. Zamir[a,*]

[a]*Human Health Research Center, INRS-Institut Armand-Frapier, Université du Québec, 531 Boulevard des Prairies, Laval, Québec, Canada H7V 1B7*
[b]*Department of Chemistry, Queen's University, Kingston, Ontario, Canada K7L 3N6*
[c]*Biomedical Mass Spectrometry Unit, McGill University, 1130 Pine Avenue West, Montréal, Québec, Canada H3A 1A3*



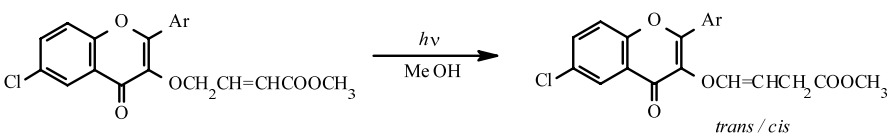
A novel minor metabolite with an unprecedented skeleton was isolated from the needles of *Taxus canadensis*. A biogenesis from taxinine an abundant taxane is proposed. This is the first example of a taxane with a 6/6/8/6-membered ring skeleton.

Photoisomerization of allyl ethers: syntheses of vinyl ethers

Tetrahedron Letters 43 (2002) 6875

Satish C. Gupta,* Mohamad Yusuf, Somesh Sharma and Surinder Arora

Department of Chemistry, Kurukshetra University, Kurukshetra 136119, India



trans / cis

Ar = phenyls, furyls, thienyls