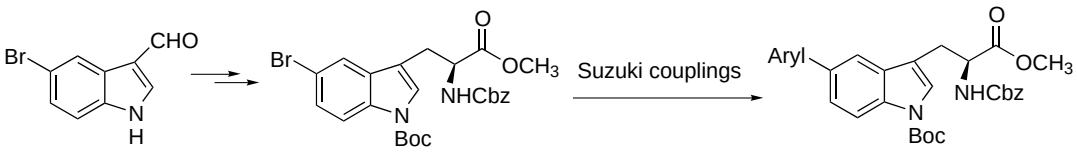
Practical, asymmetric synthesis of aromatic-substituted bulky and hydrophobic tryptophan derivatives

Tetrahedron Letters 42 (2001) 7717

Wei Wang, Chiyi Xiong, Jianqing Yang and Victor J. Hruby*

Department of Chemistry, University of Arizona, Tucson, AZ 85721, USA



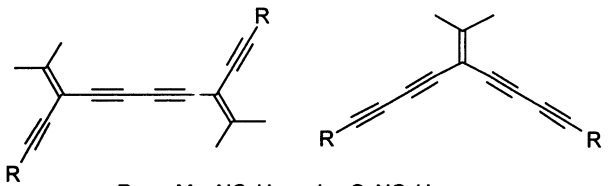
The effects of π-acceptor and π-donor substitution in cross-conjugated enynes

Tetrahedron Letters 42 (2001) 7721

Yuming Zhao, Sorin C. Ciulei and Rik R. Tykwinski*

Department of Chemistry, University of Alberta, Edmonton, Alberta, Canada T6G 2G2

The synthesis and electronic absorption characteristics of functionalized cross-conjugated enynes are described.

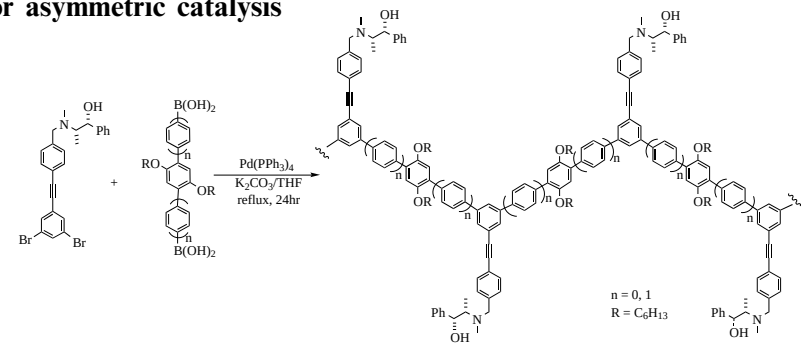


Synthesis of optically active polymers with chiral units attached to rigid backbones and their application for asymmetric catalysis

Tetrahedron Letters 42 (2001) 7725

Qiao-Sheng Hu,* Chaode Sun and Colleen E. Monaghan

Department of Chemistry, The City University of New York-College of Staten Island, Staten Island, NY 10314, USA



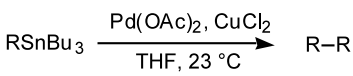
Mild and efficient formation of symmetric biaryls via Pd(II) catalysts and Cu(II) oxidants

Tetrahedron Letters 42 (2001) 7729

Jay P. Parrish, Vincent L. Flanders, Ryan J. Floyd and Kyung Woon Jung*

Department of Chemistry, University of South Florida, 4202 E. Fowler Avenue, Tampa, FL 33620-5250, USA

Described herein is a mild and efficient palladium-catalyzed synthesis of symmetric biaryls from organostannanes. This methodology offers products rapidly in very high yields.



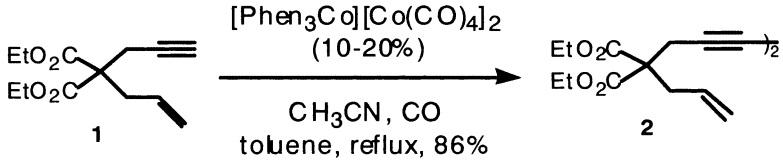
Tetrahedron Letters 42 (2001) 7733

Cobalt-catalyzed homocoupling of terminal alkynes: synthesis of 1,3-diynes

M. E. Krafft,* C. Hirosawa, N. Dalal, C. Ramsey and A. Stiegman

Department of Chemistry, Florida State University, Tallahassee, FL 32306, USA

Homocoupling of terminal alkynes proceeds using $Co_2(CO)_8$ pretreated with phenanthroline to give good yields of 1,3-diynes under mild conditions.



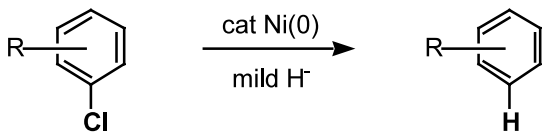
Tetrahedron Letters 42 (2001) 7737

Mild and selective reductions of aryl halides catalyzed by low-valent nickel complexes

Bruce H. Lipshutz,* Takashi Tomioka and Steven S. Pfeiffer

Department of Chemistry & Biochemistry. University of California, Santa Barbara, CA 93106, USA

Reductions of aryl chlorides; selective reductions of aryl bromides over chlorides; reductions of aryl iodides. All use catalytic $NiCl_2(Ph_3P)_2$ along with stoichiometric $Me_2NH{\cdot}BH_3$+ either K_2CO_3 or Cs_2CO_3.



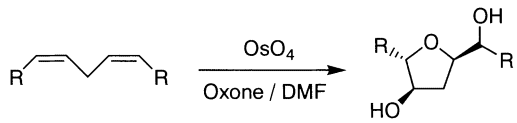
Tetrahedron Letters 42 (2001) 7741

Oxidative cyclization of 1,4-dienes to yield 2,3,5-trisubstituted tetrahydrofuran-diols

Benjamin Travis and Babak Borhan*

Department of Chemistry, Michigan State University, East Lansing, MI 48824, USA

$KMnO_4$ and OsO_4 catalyze the oxidative cyclization of 1,4-dienes to provide 2,3,5-trisubstituted tetrahydrofuran-diols in 30% yield. This reaction proceeds stereoselectively via a proposed [3+2] cycloaddition. Competing oxidative pathways are the major non-productive processes that reduce the yield of the reaction; however, four stereogenic centers are established in one-step.

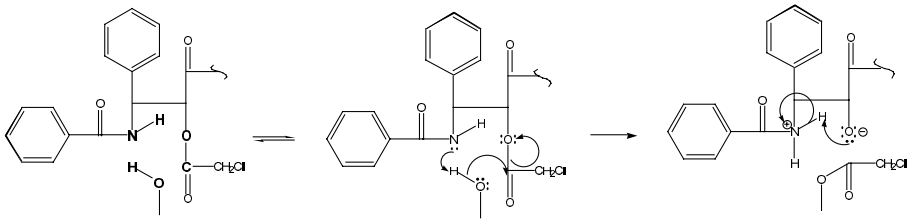


Tetrahedron Letters 42 (2001) 7747

Mechanistic considerations pertaining to the solvolysis of paclitaxel analogs bearing ester groups at the C2′ position

Wieslaw A. Klis,* Jeffrey G. Sarver and Paul W. Erhardt

Center for Drug Design and Development, The University of Toledo College of Pharmacy, Toledo, OH 43606-3390, USA



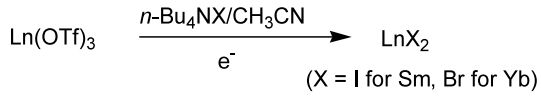
Electrochemical generation of low-valent lanthanides

Tetrahedron Letters 42 (2001) 7767

J. D. Parrish and R. Daniel Little*

Department of Chemistry and Biochemistry, University of California, Santa Barbara, CA 93106, USA

A new method is presented to produce divalent lanthanides (including the popular reductant samarium(II) iodide) from the corresponding trivalent triflate salts.

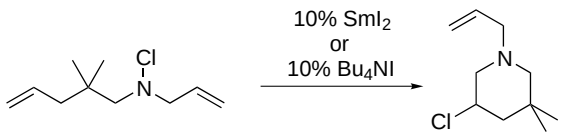


Samarium(II)-iodide catalysed addition of *N*-chloroamines to double bonds, an iodide-catalysed reaction

Tetrahedron Letters 42 (2001) 7771

Richard Göttlich* and Michael Noack

Organisch-Chemisches Institut der Westfälischen Wilhelms-Universität Münster, Corrensstr. 40, D-48149 Münster, Germany



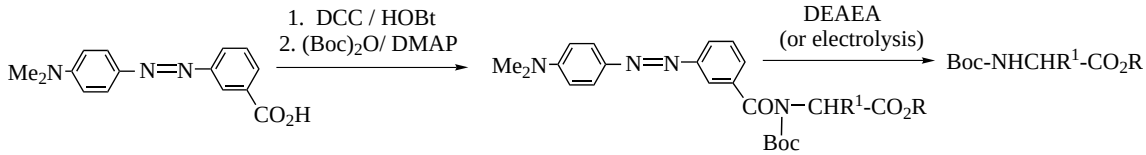
A temporary marker for biological applications

Tetrahedron Letters 42 (2001) 7775

M. Sameiro, T. Gonçalves and Hernâni L. S. Maia*

Department of Chemistry, University of Minho, Gualtar, P-4700-320 Braga, Portugal

A carboxyl azo dye was coupled to amino acid esters and the orange products further acylated with Boc for investigation of the conditions of possible cleavage of the chromophore with nucleophiles or by electrolysis.

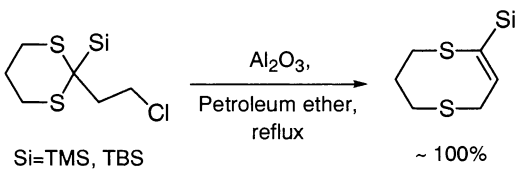


Trialkylsilyl substituent effect on ring expansion of chloroalkyl dithioketals. An easy method for the preparation of 2-trialkylsilyl-1,5-dithiacyclooct-2-enes

Tetrahedron Letters 42 (2001) 7779

F. Huguenot, J.-P. Bouillon* and C. Portella

Laboratoire 'Réactions Sélectives et Applications', Associé au CNRS (UMR 6519), Université de Reims, Faculté des Sciences, B. P. 1039, 51687 Reims Cedex 2, France

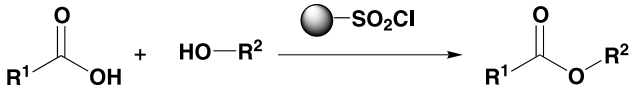


Tetrahedron Letters 42 (2001) 7783

Polystyrylsulfonyl chloride resin: an efficient solid-supported condensation reagent for the solution phase synthesis of esters

N. Zander and R. Frank*

AG Molecular Recognition, GBF (German Research Center for Biotechnology) Mascheroder Weg 1, D-38124 Braunschweig, Germany



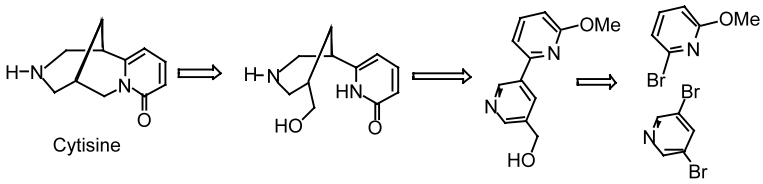
Tetrahedron Letters 42 (2001) 7787

Construction of functionalized/substituted bipyridines by means of Negishi cross-coupling reactions. Formal synthesis of (±)-cytisine

Prosper Nshimyumukiza,[a] Dominique Cahard,[a] Jacques Rouden,[b] Marie-Claire Lasne[b] and Jean-Christophe Plaquevent[a,*]

[a]*Laboratoire des Fonctions Azotées et Oxygénées Complexes de l'IRCOF, UMR 6014, Université de Rouen, Faculté des Sciences, Rue Tesnière, F-76821 Mont-Saint-Aignan Cedex, France*

[b]*Laboratoire de Chimie Moléculaire et Thio-Organique, UMR 6507, ISMRA, Université de Caen, 6 Bd du Maréchal Juin, F-14050 Caen, France*



Tetrahedron Letters 42 (2001) 7791

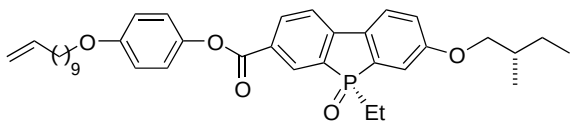
Asymmetric dibenzophospholes: new phosphorus-based chiral liquid crystals

Ernesto Durán,[a] Esther Gordo,[a] Jaume Granell,[b] Dolores Velasco[a] and Francisco López-Calahorra[a,*]

[a]*Departament de Química Orgànica, Facultat de Química, Universitat de Barcelona, Martí i Franquès, 1-11, E-08028 Barcelona, Spain*

[b]*Departament de Química Inorgànica, Facultat de Química, Universitat de Barcelona, Martí i Franquès, 1-11, E-08028 Barcelona, Spain*

(S_P,S_C)-5-Ethyl-3-(2-methylbutoxy)-7-(4-undec-10-enoxyphenoxycarbonyl)-5*H*-dibenzophosphole 5-oxide, the first example in the literature of a new asymmetrically substituted dibenzophosphole-based group of systems with liquid-crystal properties is described.



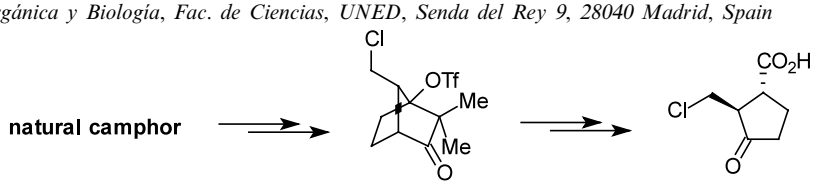
Tetrahedron Letters 42 (2001) 7795

From natural camphor to (1*R*,2*S*)-2-chloromethyl-3-oxocyclopentanecarboxylic acid: a stereocontrolled approach to enantiopure sarkomycin

Antonio García Martínez,[a,*] Enrique Teso Vilar,[b,*] Amelia García Fraile,[b] Santiago de la Moya Cerero,[a] Sergio de Oro Osuna[a] and Beatriz Lora Maroto[b]

[a]*Depto. de Química Orgánica I, Fac. de C.C. Químicas, Universidad Complutense de Madrid, Ciudad Universitaria, 28040 Madrid, Spain*

[b]*Depto. de Química Orgánica y Biología, Fac. de Ciencias, UNED, Senda del Rey 9, 28040 Madrid, Spain*



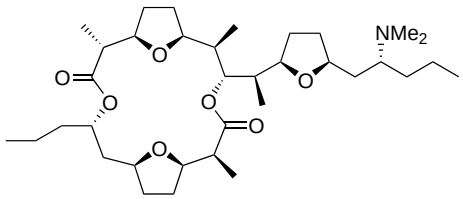
Total synthesis of pamamycin-607

Tetrahedron Letters 42 (2001) 7801

Yuzhou Wang, Heiko Bernsmann, Margit Gruner and Peter Metz*

Institut für Organische Chemie, Technische Universität Dresden, Bergstraße 66, D-01069 Dresden, Germany

The macrodiolide antibiotic pamamycin-607 has been synthesized by coupling of the two hydroxy acid constituents using the Yamaguchi method. Lactonization involving the carboxylic acid of the smaller fragment and the hydroxyl group of the larger fragment yielded the target molecule.



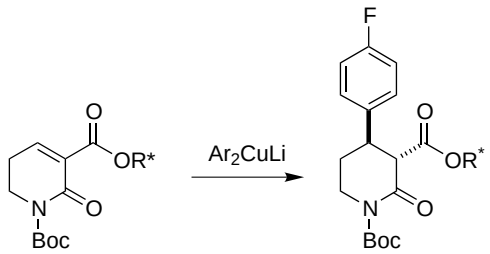
pamamycin-607

A short formal synthesis of paroxetine. Diastereoselective cuprate addition to a chiral racemic olefinic amido ester

Tetrahedron Letters 42 (2001) 7805

Janine Cossy,[a,*] Olivier Mirguet,[a] Domingo Gomez Pardo[a] and Jean-Roger Desmurs[b]

[a]*Laboratoire de Chimie Organique ESPCI, 10 rue Vauquelin, 75231 Paris Cedex 05, France*
[b]*Rhodia, 190 avenue Thiers, 69457 Lyon Cedex 06, France*



5 **6**

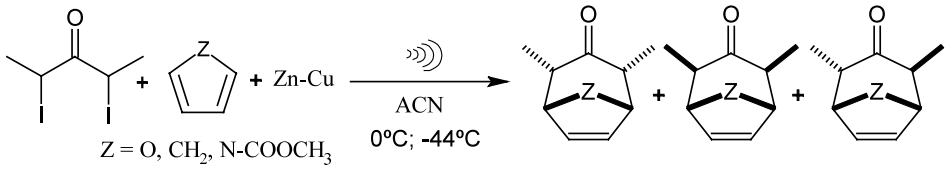
New methodology for the [4+3] cycloaddition reactions: generation of oxyallyl cations from α,α′-diiodoketones under sonochemical or thermal conditions

Tetrahedron Letters 42 (2001) 7809

Angel M. Montaña* and Pedro M. Grima

Departamento de Química Orgánica, Universidad de Barcelona, Martí i Franquès 1-1, 08028 Barcelona, Spain

A new methodology to perform [4+3] cycloaddition reactions of dienes and 1,3-dimethyl-2-oxyallyl cations, generated from α,α′-diiodoketones by reduction with Zn/Cu couple, under sonochemical conditions at low temperatures (−44°C) and for short reaction times (<15 min).



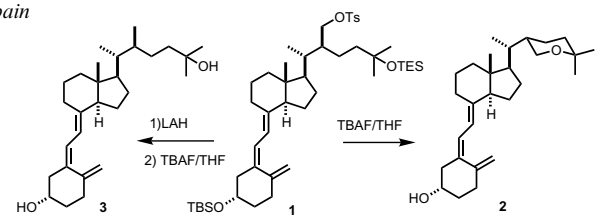
Z = O, CH_2, N-$COOCH_3$

A key intermediate for the convenient synthesis of series of vitamin D_3 analogues with modified side chains

Tetrahedron Letters 42 (2001) 7815

Yagamare Fall,[a,*] Carlos Fernandez,[a] Victoria González[a] and Antonio Mouriño[b]

[a]*Departamento de Química Orgánica, Facultad de Ciencias. Universidad de Vigo, 36200 Vigo, Spain*
[b]*Departamento de Química Orgánica y Unidad Asociada al C.S.I.C., Universidad de Santiago de Compostela, 15782 Santiago de Compostela, Spain*



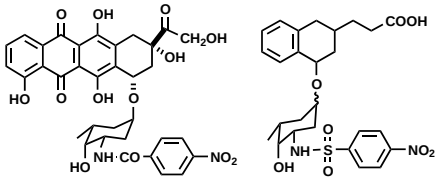
Synthesis of a new hapten for generating catalytic antibodies that activate doxorubicin prodrugs

Tetrahedron Letters 42 (2001) 7819

Carlos Jiménez[a] and Alfonso Tramontano[b,*]

[a]*Departamento de Química Fundamental, Facultade de Ciencias, Universidade de A Coruña, 15071 A Coruña, Spain*
[b]*Department of Pathology and Laboratory Medicine, University of Texas Houston Medical School, Houston, TX 77030, USA*

A new hapten has been designed and prepared which may be used to produce catalytic antibodies for activation of new prodrugs of the anticancer agent doxorubicin.

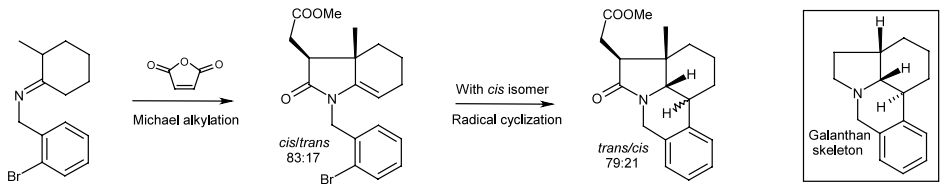


A straightforward approach to the galanthan ring system using the imine Michael reaction followed by a radical cyclization

Tetrahedron Letters 42 (2001) 7823

Ivan Jabin* and Pierre Netchitaïlo

URCOM, Université du Havre, Faculté des Sciences et Techniques, 25 rue Philippe Lebon, BP 540, 76058 Le Havre Cedex, France

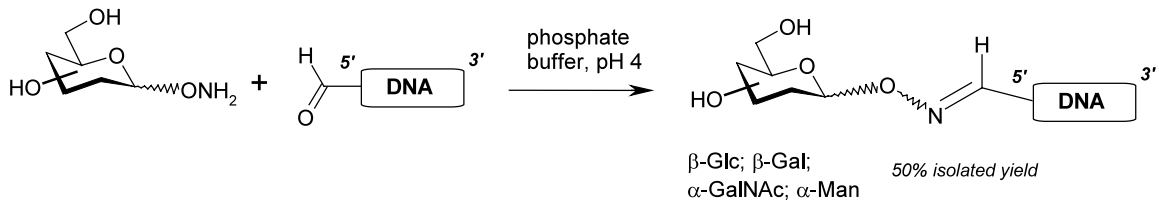


Efficient preparation of carbohydrate–oligonucleotide conjugates (COCs) using oxime bond formation

Tetrahedron Letters 42 (2001) 7829

Damien Forget, Olivier Renaudet, Eric Defrancq and Pascal Dumy*

LEDSS, UMR CNRS 5616, Université Joseph Fourier, BP 53, F-38041 Grenoble Cedex 9, France



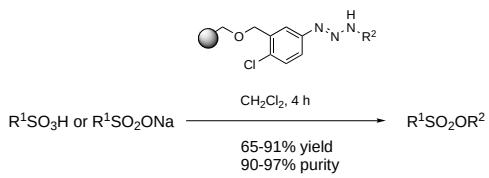
Synthesis of alkyl sulfonates from sulfonic acids or sodium sulfonates using solid-phase bound reagents

Tetrahedron Letters 42 (2001) 7833

Nicola Vignola,[a] Stefan Dahmen,[a] Dieter Enders[a] and Stefan Bräse[a,b,*]

[a]*RWTH Aachen, Institut für Organische Chemie, Professor-Pirlet-Straße 1, D-52074 Aachen, Germany*
[b]*Kekulé-Institut für Organische Chemie und Biochemie der Rheinischen Friedrich-Wilhelms-Universität Bonn, Gerhard-Domagk-Straße 1, D-53121 Bonn, Germany*

A clean method for the synthesis of alkyl sulfonates is presented.

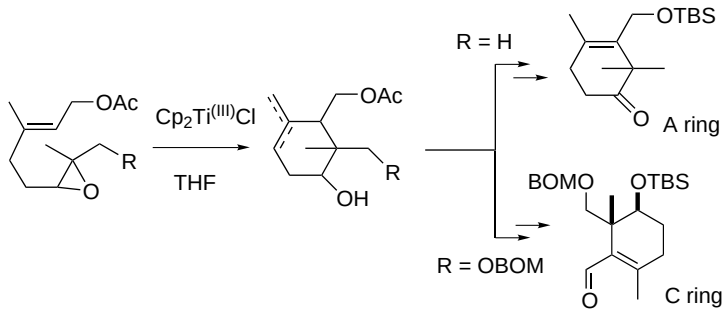


Tetrahedron Letters 42 (2001) 7855

Stereo- and regio-selective Ti-mediated radical cyclization of epoxy-alkenes: synthesis of the A and C ring synthons of paclitaxel

Kazuoki Nakai, Miyuki Kamoshita, Takayuki Doi, Haruo Yamada and Takashi Takahashi*

Department of Applied Chemistry, Tokyo Institute of Technology, 2-12-1 Ookayama, Meguro, Tokyo 152-8552, Japan

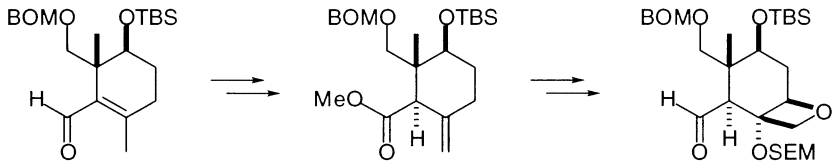


Tetrahedron Letters 42 (2001) 7859

The synthesis of the CD ring of paclitaxel

Kazuoki Nakai, Shigeru Miyamoto, Daisuke Sasuga, Takayuki Doi and Takashi Takahashi*

Department of Applied Chemistry, Tokyo Institute of Technology, 2-12-1 Ookayama, Meguro, Tokyo 152-8552, Japan

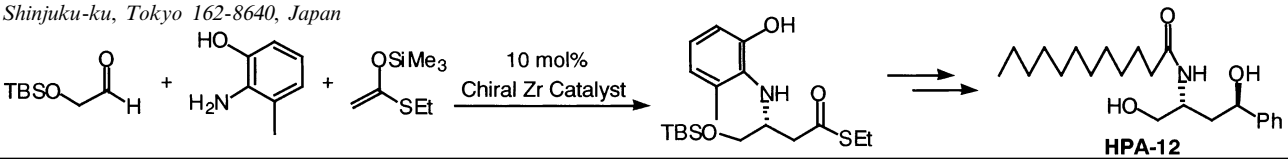


Tetrahedron Letters 42 (2001) 7863

Catalytic enantioselective synthesis of a novel inhibitor of ceramide trafficking, (1*R*,3*R*)-*N*-(3-hydroxy-1-hydroxymethyl-3-phenylpropyl)-dodecanamide (HPA-12)

Masaharu Ueno,[a,b] Hidetoshi Kitagawa,[a,b] Haruro Ishitani,[a,b] Satoshi Yasuda,[b,c] Kentaro Hanada[b,c] and Shū Kobayashi[a,b,*]

[a]*Graduate School of Pharmaceutical Sciences, The University of Tokyo, Hongo, Bunkyo-ku, Tokyo 113-0033, Japan*
[b]*CREST, Japan Science and Technology Corporation, 4-1-8, Honchou, Kawaguchi-City, Saitama 332-0012, Japan*
[c]*Department of Biochemistry and Cell Biology, National Institute of Infectious Diseases (former National Institute of Health), Toyama, Shinjuku-ku, Tokyo 162-8640, Japan*

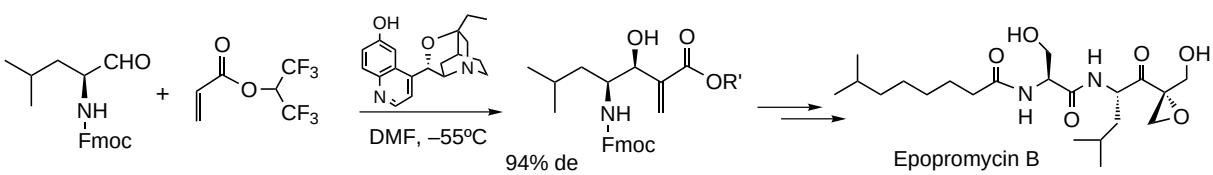


Tetrahedron Letters 42 (2001) 7867

An enantio- and stereocontrolled route to epopromycin B via *cinchona* alkaloid-catalyzed Baylis–Hillman reaction

Yoshiharu Iwabuchi, Tatsuya Sugihara, Tomoyuki Esumi and Susumi Hatakeyama*

Faculty of Pharmaceutical Sciences, Nagasaki University, 1-14 Bunkyo-machi, Nagasaki 852-8521, Japan

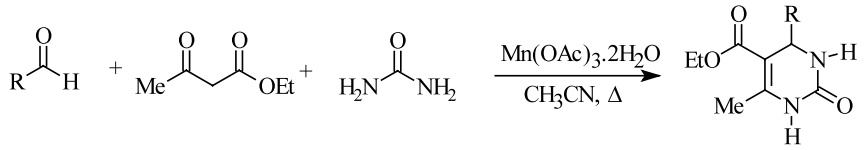


Tetrahedron Letters 42 (2001) 7873

$Mn(OAc)_3 \cdot 2H_2O$-mediated three-component, one-pot, condensation reaction: an efficient synthesis of 4-aryl-substituted 3,4-dihydropyrimidin-2-ones

K. Ananda Kumar, M. Kasthuraiah, C. Suresh Reddy* and C. Devendranath Reddy

Department of Chemistry, Sri Venkateswara University, Tirupati 517 502, India



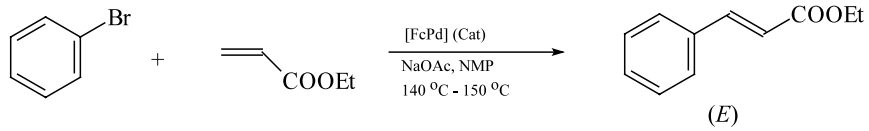
Tetrahedron Letters 42 (2001) 7877

Acetylferrocenyloxime palladacycle-catalyzed Heck reactions

Suresh Iyer* and A. Jayanthi

Organic Chemistry Synthesis Division, National Chemical Laboratory, Pune 411 008, India

Acetylferrocenyloxime palladacycle catalyzed the Heck reaction of aryl bromides and olefins.



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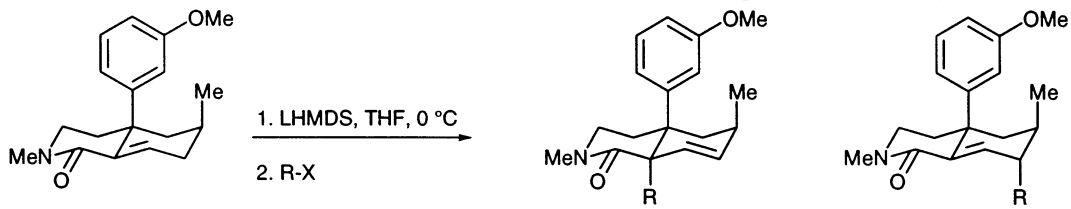
Tetrahedron Letters 42 (2001) 7879

Synthetic studies on morphine-based analgesics: an approach to angular substitution in 4a-aryldecahydroisoquinolines via dienolate chemistry

Quyen Ong,[a] Helge Hameyer,[a] Sheetal Handa[a] and Keith Jones[b,*]

[a]*Chemistry Department, King's College London, Strand, London WC2R 2LS, UK*

[b]*School of Chemical and Pharmaceutical Sciences, Kingston University, Kingston-upon-Thames, Surrey KT1 2EE, UK*



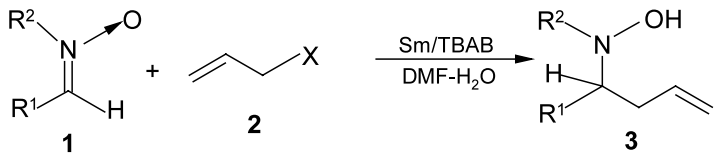
Tetrahedron Letters 42 (2001) 7883

Organometallic reaction in aqueous media. A samarium induced, efficient, synthesis of homoallyl hydroxylamines and hydrazides

Dhrubojyoti D. Laskar, Dipak Prajapati* and Jagir S. Sandhu

Regional Research Laboratory, Jorhat, 785006 Assam, India

Samarium can be used directly for the allylation of aldonitrones and hydrazones in aqueous media in the presence of Bu_4NBr.



1 **2** **3**

Acyl radical cyclisation onto pyrroles

Tetrahedron Letters 42 (2001) 7887

Steven M. Allin,[a,*] William R. S. Barton,[a] W. Russell Bowman[a] and Tom McInally[b,*]

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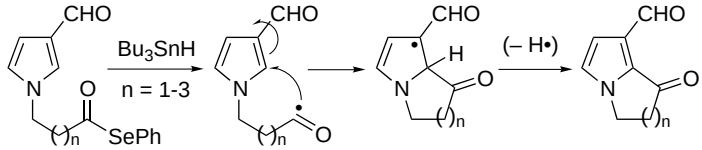
Synthetically useful [1,2-*a*]-fused pyrroles have been generated by acyl radical cyclisation onto pyrroles using *N*-(ω-acyl)-radicals generated from acyl-selenide precursors. The protocol does not require high pressures of CO. Mechanistic studies indicate the key role of azo radical initiators as oxidants of the intermediate π-radicals.

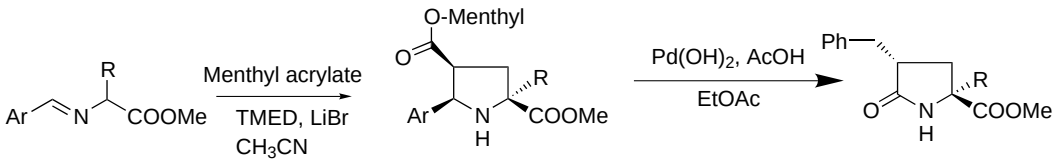


Cycloaddition–hydrogenolysis strategy for the synthesis of 2,4-disubstituted pyroglutamates

Tetrahedron Letters 42 (2001) 7891

Lalit N. Goswami, Stuti Srivastava, Sharad K. Panday and Dinesh K. Dikshit*

Medicinal Chemistry Division, Central Drug Research Institute, Lucknow 226 001, India



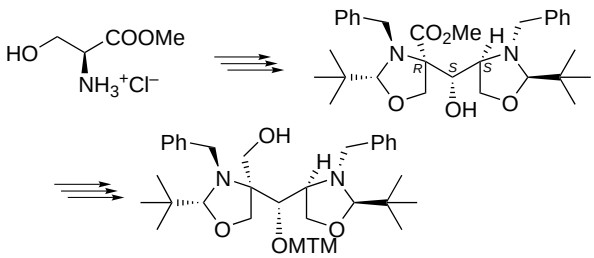
Synthetic studies toward kaitocephalin

Tetrahedron Letters 42 (2001) 7893

Teck-Peng Loh,* Yew-Keong Chok and Zheng Yin

National University of Singapore, Department of Chemistry, 3 Science Drive 3, Singapore 117543, Singapore

Synthetic studies toward the total synthesis of kaitocephalin **1** were undertaken, commencing from L-serine methyl ester hydrochloride. Some interesting results were observed in the key aldol reaction based on Seebach's principal of self-reproduction of chirality.



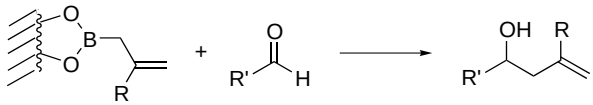
ROMPgel supported allylboronate: a purification-free method for the preparation of homoallylic alcohols

Tetrahedron Letters 42 (2001) 7899

Thomas Arnauld, Anthony G. M. Barrett* and Robert Seifried

Department of Chemistry, Imperial College of Science, Technology and Medicine, London SW 7 2AY, UK

Allylboration of various aldehydes was carried out by a ROMPgel supported allylboronate.

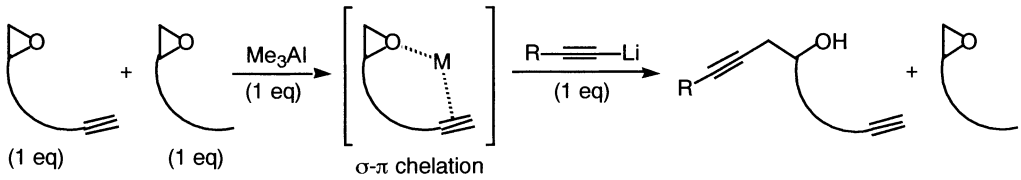


Tetrahedron Letters 42 (2001) 7903

σ–π Chelation-controlled chemoselective ring openings of epoxides

Naoki Asao, Taisuke Kasahara and Yoshinori Yamamoto*

Department of Chemistry, Graduate School of Science, Tohoku University, Sendai 980-8578, Japan



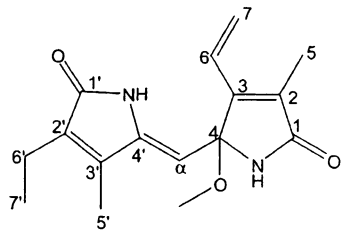
Tetrahedron Letters 42 (2001) 7907

A new propentdyopent derivative, rollipyrrole, from *Rollinia mucosa* Baill

Reen-Yen Kuo, Fang-Rong Chang and Yang-Chang Wu*

Graduate Institute of Natural Products, Kaohsiung Medical University, Kaohsiung 807, Taiwan

Rollipyrrole **1**, a novel pyrromethenone derivative was isolated from the leaves of *Rollinia mucosa* in the continuing research into Formosan annonaceous plants. This type of compound was isolated from plants for the first time and the structure of **1** was elucidated mainly on the basis of 1D and 2D NMR spectroscopic data.



rollipyrrole **1**

Tetrahedron Letters 42 (2001) 7911

Some thermal decomposition reactions of $C_{60}H_{36}$

Nai-Xing Wang,* Lin Wang, Wei Liu, Yuxiang Ou, and Wenjun Li

Technical Institute of Physics and Chemistry, The Chinese Academy of Sciences, 100101 Beijing, China

$C_{60}H_{36}$ starts to thermally dehydrogenate at 199.3°C. Vaska's compound can catalyze the thermal dehydrogenation of $C_{60}H_{36}$ at low temperature. When nickel powder was used as the catalyst, $C_{60}H_{36}$ can reduce anthracene by heating, and $C_{60}H_{36}$ can reduce the silver ion and ammonia complex in solution as well as C_{60} itself.

$$C_{60}H_{36} + 18[Ag(NH_3)_2]OH = C_{60}H_{18} + 18Ag + 18H_2O + 36NH_3$$

Tetrahedron Letters 42 (2001) 7915

A new pyridylamine for blue light electroluminescent devices

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[a]*Department of Electrical Engineering, Yung-Ta Institute of Technology, Ping-Tung, Taiwan, ROC*
[b]*Department of Chemistry, Chung-Yuan Christian University, Chung-Li, Taiwan, ROC*
[c]*Department of Chemistry, Soochow University, Taipei, Taiwan, ROC*

The new pyridylamine, *N*,*N*′-bis(1-naphthyl)-*N*,*N*′-diphenyl-2,6-diaminopyridine, emits an intense blue color ($\lambda = 443$ nm, $\Phi_f = 0.74$) upon irradiation by UV light and is suitable for use as an emitting layer in an electroluminescent device.