Catalytic asymmetric oxidative lactonizations of *meso*-diols using a chiral iridium complex

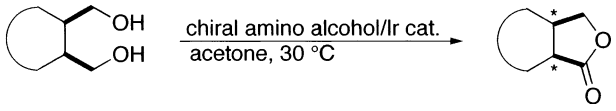
Tetrahedron Letters 44 (2003) 2003

Takeyuki Suzuki,[a] Kenji Morita,[a] Yoshimi Matsuo[b] and Kunio Hiroi[a,*]

[a]*Department of Synthetic Organic Chemistry, Tohoku Pharmaceutical University, 4-4-1 Komatsushima, Aoba-Ku, Sendai 981-8558, Japan*

[b]*Department of Chemistry, Nagoya University, Chikusa, Nagoya 464-8602, Japan*

A chiral amino alcohol/Ir complex catalyzes the asymmetric oxidative lactonizations of *meso*-diols to give the corresponding lactones in up to 81% ee.

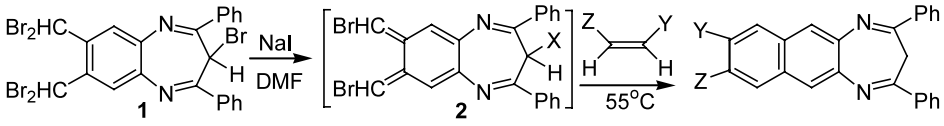


The first benzodiazepine *o*-quinodimethane: generation and Diels–Alder reactions

Tetrahedron Letters 44 (2003) 2007

Minothora Pozarentzi, Julia Stephanidou-Stephanatou* and Constantinos A. Tsoleridis

Department of Chemistry, Laboratory of Organic Chemistry, University of Thessaloniki, 54124, Macedonia, Greece



A novel intramolecular arene–alkene photocycloaddition in 2-alkenyl naphtha-4-chromanones—a short route to functionalised multicyclic systems

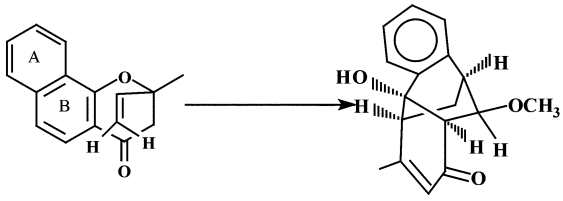
Tetrahedron Letters 44 (2003) 2011

Govind P. Kalena,[a] Padmanava Pradhan,[a] Vedavati S. Puranik[b] and Asoke Banerji[c,*]

[a]*Bioorganic Division, Bhabha Atomic Research Centre, Mumbai (Bombay)-400085, India*

[b]*National Chemical Laboratory, Pune-411 008, India*

[c]*Organic and Biomolecular Chemistry Division, Regional Research Laboratory, Trivandrum-695019, India*

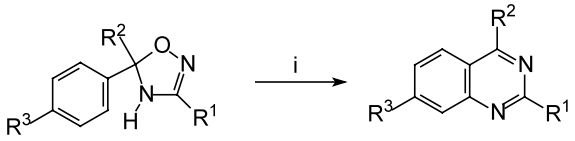


Transformation of 5,5-diaryl-4,5-dihydro-1,2,4-oxadiazoles to 4-arylquinazolines

Tetrahedron Letters 44 (2003) 2015

Wojciech Szczepankiewicz,* Paweł Wagner, Mirosław Danicki and Jerzy Suwiński

Institute of Organic Chemistry and Technology, Silesian University of Technology, Krzywoustego 4, 44-100 Gliwice, Poland



i = Ac_2O, reflux, 6 h. Yield 30 - 81%.

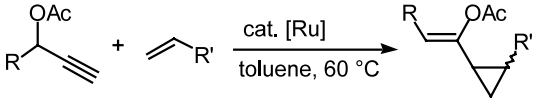
Tetrahedron Letters 44 (2003) 2019

A new ruthenium-catalyzed cyclopropanation of alkenes using propargylic acetates as a precursor of vinylcarbenoids

Koji Miki, Kouichi Ohe* and Sakae Uemura*

Department of Energy and Hydrocarbon Chemistry, Graduate School of Engineering, Kyoto University, Sakyo-ku, Kyoto 606-8501, Japan

$[RuCl_2(CO)_3]_2$ catalyzes intermolecular cyclopropanation of various alkenes with propargylic acetates. The key intermediate of this reaction is a vinylcarbene complex generated from propargylic acetate and the ruthenium complex.

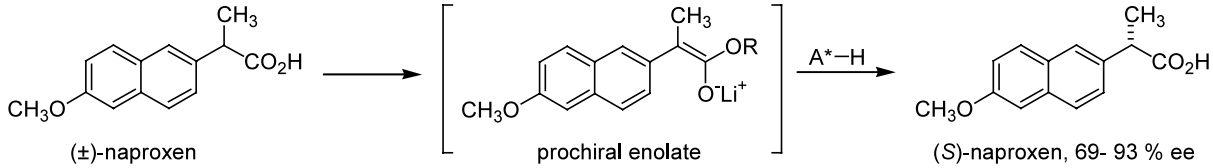


Tetrahedron Letters 44 (2003) 2023

Enantioselective protonation of prochiral enolates in the asymmetric synthesis of (*S*)-naproxen

Omar Muñoz-Muñiz and Eusebio Juaristi*

Departamento de Química, Centro de Investigación y de Estudios Avanzados del Instituto Politécnico Nacional, Apartado Postal 14-740, 07000 México, D.F., Mexico

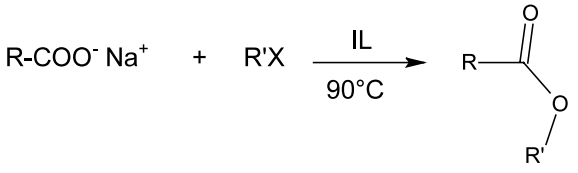


Tetrahedron Letters 44 (2003) 2027

Ionic liquids as reaction media for esterification of carboxylate sodium salts with alkyl halides

L. Brinchi, R. Germani and G. Savelli*

Department of Chemistry, Università di Perugia, Via Elce di Sotto, 8, 06124, Perugia, Italy



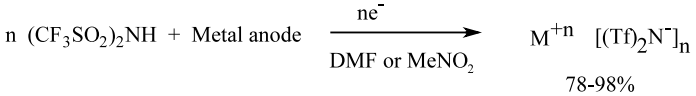
Tetrahedron Letters 44 (2003) 2031

Novel electrosynthesis of metallic bis(trifluoromethanesulfonyl) imides

Isabelle Favier[a] and Elisabet Duñach[b,*]

[a]*Laboratoire Arômes, Synthèses et Interactions, Université de Nice-Sophia Antipolis, Parc Valrose, 06108 Nice cedex 2, France*

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

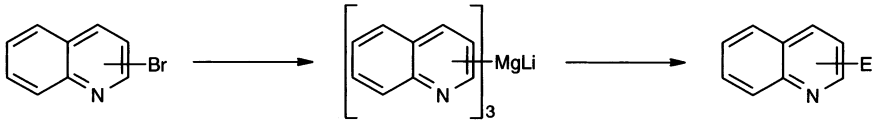


Tetrahedron Letters 44 (2003) 2033

Tributylmagnesium ate complex-mediated bromine-magnesium exchange of bromoquinolines: a convenient access to functionalized quinolines

Sylvain Dumouchel, Florence Mongin,* François Trécourt and Guy Quéguiner

Laboratoire de Chimie Organique Fine et Hétérocyclique, UMR 6014, IRCOF, Place E. Blondel, BP 08, 76131 Mont-Saint-Aignan Cédex, France



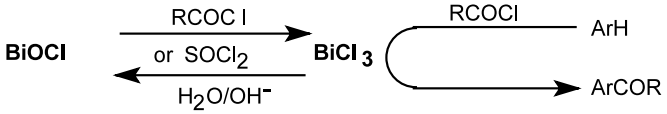
Tetrahedron Letters 44 (2003) 2037

$BiCl_3$-catalyzed Friedel–Crafts acylation reactions: bismuth(III) oxychloride as a water insensitive and recyclable procatalyst

Sigrid Répichet,[a] Christophe Le Roux,[a,*] Nicolas Roques[b] and Jacques Dubac[a]

[a]*Hétérochimie Fondamentale et Appliquée, Université Paul-Sabatier, 118 route de Narbonne, 31062 Toulouse Cedex 04, France*

[b]*Rhodia Organique Fine, Centre de Recherche de Lyon, 85 avenue des Frères Perret, 69192 Saint-Fons Cedex, France*

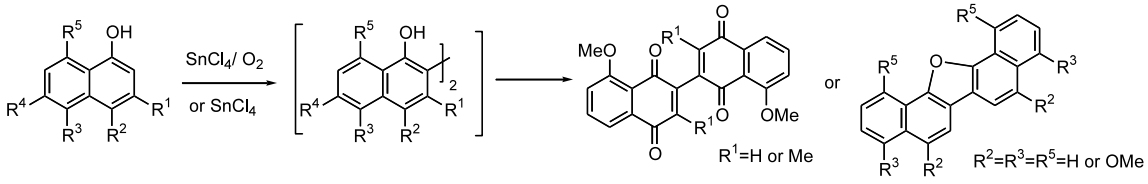


Tetrahedron Letters 44 (2003) 2041

$SnCl_4$-mediated oxidative reaction for formation of binaphthoquinone and dinaphthofuran frameworks and its application to natural product synthesis

Tokutaro Ogata, Iwao Okamoto, Hirohisa Doi, Eiichi Kotani and Tetsuya Takeya*

Showa Pharmaceutical University, 3-3165 Higashi-tamagawagakuen, Machida, Tokyo 194-8543, Japan



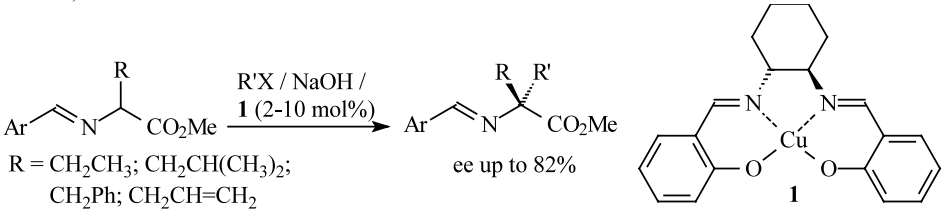
Tetrahedron Letters 44 (2003) 2045

Catalytic, asymmetric synthesis of α,α-disubstituted amino acids

Yuri N. Belokon',[b] Devayani Bhave,[a] Daniela D'Addario,[a] Elizabetta Groaz,[a] Viktor Maleev,[b] Michael North[a,*] and Armine Pertrosyan[b]

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

[b]*A.N. Nesmeyanov Institute of Organo-Element Compounds, Russian Academy of Sciences, 117813 Moscow, Vavilov 28, Russian Federation*

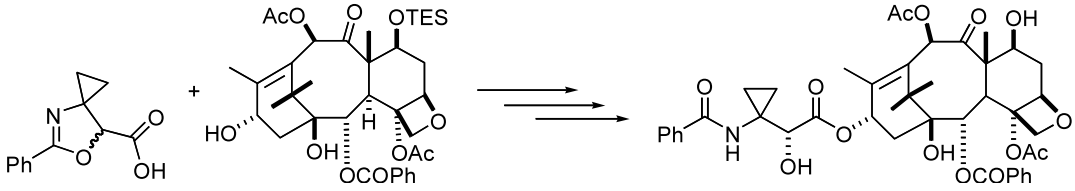


Tetrahedron Letters 44 (2003) 2049

Synthesis and bioactivities of paclitaxel analogs with a cyclopropanated side-chain

Changhui Liu,[a] Markus Tamm,[b] Marcus W. Nötzel,[b] Armin de Meijere,[b] Jennifer K. Schilling[a] and David G. I. Kingston[a,*]

[a]*Department of Chemistry, M/C 0212, Virginia Polytechnic Institute and State University, Blacksburg, VA 24061, USA*
[b]*Institut für Organische Chemie der Georg-August-Universität Göttingen, Tammannstrasse 2, D-37077 Göttingen, Germany*

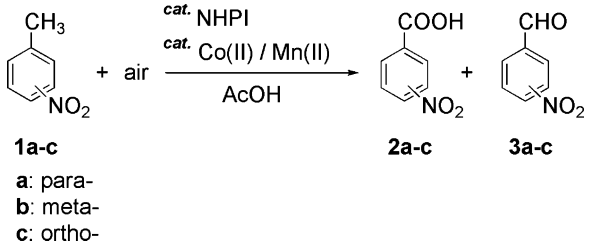


Tetrahedron Letters 44 (2003) 2053

Oxidation of nitrotoluenes with air using *N*-hydroxyphthalimide analogues as key catalysts

Naoko Sawatari, Satoshi Sakaguchi and Yasutaka Ishii*

Department of Applied Chemistry & High Technology Research Center, Faculty of Engineering, Kansai University, Suita, Osaka 564-8680, Japan

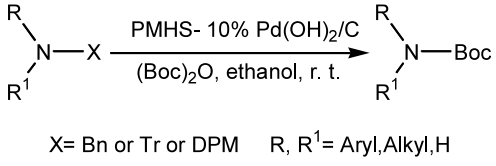


Tetrahedron Letters 44 (2003) 2057

Single-step conversion of *N*-benzyl, *N*-trityl and *N*-diphenylmethyl amines to *t*-butyl carbamates using polymethylhydrosiloxane

S. Chandrasekhar,* B. Nagendra Babu and Ch. Raji Reddy

Indian Institute of Chemical Technology, 500007 Hyderabad, India

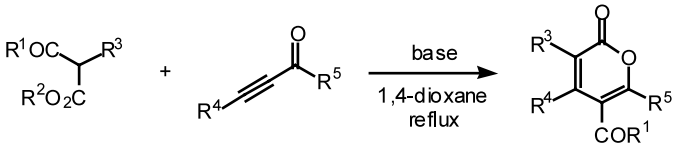


Tetrahedron Letters 44 (2003) 2061

Novel 2-pyrone synthesis via the nucleophilic addition of active methine compounds to 2-alkynone

Iwao Hachiya, Hitoshi Shibuya and Makoto Shimizu*

Department of Chemistry for Materials, Mie University, Tsu, Mie 514-8507, Japan



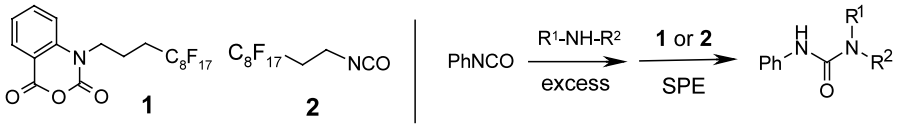
Tetrahedron Letters 44 (2003) 2065

Fluorous electrophilic scavengers for solution-phase parallel synthesis

Wei Zhang,* Christine Hiu-Tung Chen and Tadamichi Nagashima

Fluorous Technologies, Inc., University of Pittsburgh Applied Research Center, 970 William Pitt Way, Pittsburgh, PA 15238, USA

Fluorous isatoic anhydride **1** and isocyanate **2** are synthesized and used as electrophilic scavengers in solution-phase parallel synthesis of urea, thiourea, and β-hydroxyamine analogs.



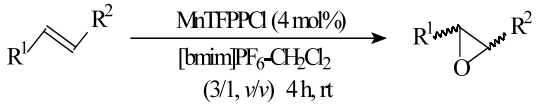
Tetrahedron Letters 44 (2003) 2069

Epoxidation of olefins catalyzed by manganese(III) porphyrin in a room temperature ionic liquid

Zhen Li and Chun-Gu Xia*

State Key Laboratory for Oxo Synthesis and Selective Oxidation, Lanzhou Institute of Chemical Physics, Chinese Academy of Sciences, Lanzhou 730000, China

The epoxidation of several alkenes catalyzed by MnTFPPCl was carried out in a [bmim]PF_6 ionic liquid/CH_2Cl_2 mixed solvent with $PhI(OAc)_2$ as oxidant. The conversion and the yield of epoxide are excellent. The catalyst in the ionic liquids can be recycled for several runs without substantial diminution in the catalytic activity.



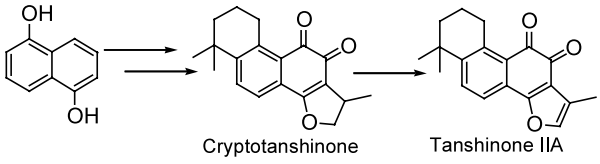
Tetrahedron Letters 44 (2003) 2073

Facile and efficient total synthesis of (±)-cryptotanshinone and tanshinone IIA

Ying-Yan Jiang, Qian Li, Wei Lu* and Jun-Chao Cai*

Shanghai Institute of Materia Medica, SIBS, Chinese Academy of Sciences, 294 Taiyuan Road, Shanghai 200031, China

A concise synthesis of (±)-cryptotanshinone and tanshinone IIA from readily available 1,5-naphthalenediol is described.

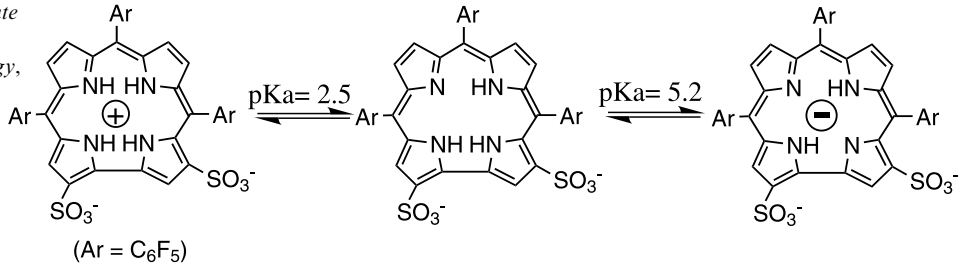


Tetrahedron Letters 44 (2003) 2077

How acidic are corroles and why?

Atif Mahammed,[a] Jeremy J. Weaver,[b] Harry B. Gray,[b] Meirav Abdelas[a] and Zeev Gross[a,*]

[a]*Department of Chemistry and Institute of Catalysis Science and Technology, Technion-Israel Institute of Technology, Haifa 32000, Israel*
[b]*Beckman Institute, California Institute of Technology, Pasadena, CA 91125, USA*



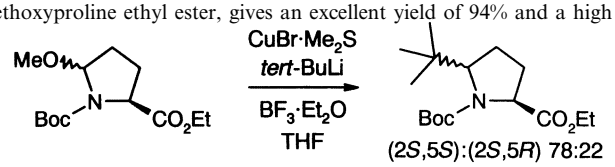
Addition of *tert*-butylcuprate to (2*S*)-*N*-acyl-Δ^5-dehydroprolinates as a diastereoselective synthetic procedure for obtaining (2*S*,5*S*)-5-*tert*-butylproline

Tetrahedron Letters 44 (2003) 2081

Erik A. A. Wallén,[a,*] Johannes A. M. Christiaans,[a] Jukka Gynther[a,c] and Jouko Vepsäläinen[b,c]

[a]*Department of Pharmaceutical Chemistry, University of Kuopio, PO Box 1627, FIN-70211 Kuopio, Finland*
[b]*Department of Chemistry, University of Kuopio, PO Box 1627, FIN-70211 Kuopio, Finland*
[c]*Finncovery Ltd., Kuopio, Finland*

The synthesis of (2*S*,5*S*)-Boc-5-*tert*-butylproline ethyl ester via the addition of *tert*-butylcuprate to (2*S*)-*N*-Boc-Δ^5-dehydroproline ethyl ester, formed from (2*S*)-*N*-Boc-5-methoxyproline ethyl ester, gives an excellent yield of 94% and a high diastereoselectivity (2*S*,5*S*):(2*S*,5*R*) 78:22.

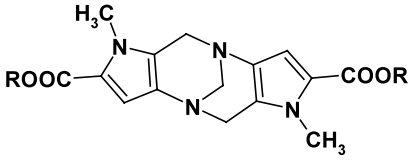


Novel heterocyclic Tröger's base derivatives containing *N*-methylpyrrole units

Tetrahedron Letters 44 (2003) 2083

Martin Valík,[a] Bohumil Dolensky,[a] Hana Petříčková,[b] Petr Vašek[a] and Vladimír Král[a,*]

[a]*Department of Analytical Chemistry, Institute of Chemical Technology Prague, Technická 5, Praha 6, 166 28, Czech Republic*
[b]*Department of Solid State Chemistry, Institute of Chemical Technology Prague, Technická 5, Praha 6, 166 28, Czech Republic*



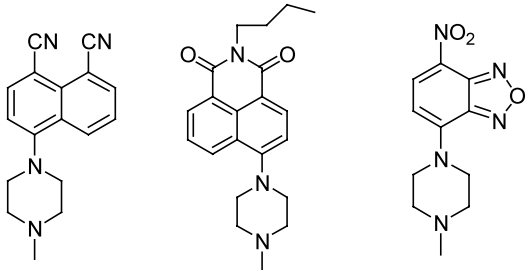
Novel analogues of Tröger's base were prepared regioselectively from 4-amino-*N*-methylpyrrole carboxylates in good yield. The dicarboxylic acid derivative (R = H) was used for the preparation of Tröger's base derivatives of natural antibiotics via an amide protocol. Incorporation of guanidine as the terminal group in the *N*-methylpyrrole Tröger's base skeleton opens the possibility of the preparation of water soluble derivatives.

Novel highly efficient fluoroionophores with a *peri*-effect and strong electron-donating receptors: TICT-promoted PET and signaling response to transition metal cations with low background emission

Tetrahedron Letters 44 (2003) 2087

Yi Xiao[a,b] and Xuhong Qian[a,*]

[a]*State Key Laboratory of Fine Chemicals, Dalian University of Technology, PO Box 40, Dalian 116012, China*
[b]*Shanghai Key Laboratory of Chemical Biology, East China University of Science and Technology, PO Box 544, Shanghai 200237, China*

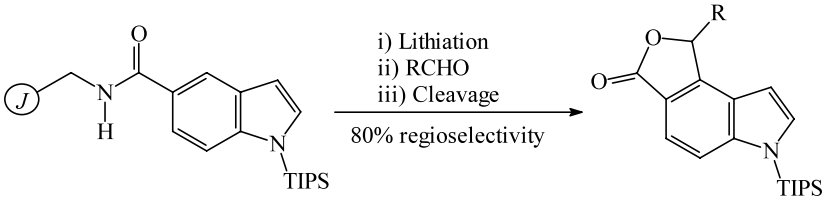


Solid-phase lithiation of 5-carboxyindoles

Tetrahedron Letters 44 (2003) 2093

Jan Tois* and Ari Koskinen

Laboratory of Organic Chemistry, Helsinki University of Technology, 02015 TKK, Finland

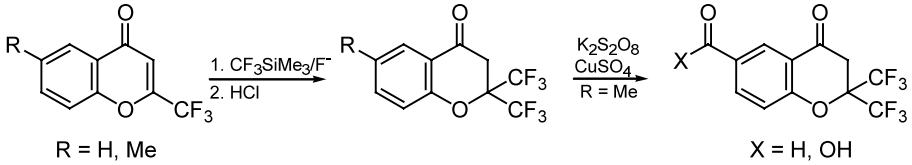


Tetrahedron Letters 44 (2003) 2097

The first example of a preparative 1,4-perfluoroalkylation using (perfluoroalkyl)trimethylsilanes

V. Ya. Sosnovskikh,[a,*] D. V. Sevenard,[b] B. I. Usachev[a] and G. -V. Röschenthaler[b]

[a]*Department of Chemistry, Ural State University, 620083 Ekaterinburg, Russia*
[b]*Institute of Inorganic and Physical Chemistry, University of Bremen, 28334 Bremen, Germany*



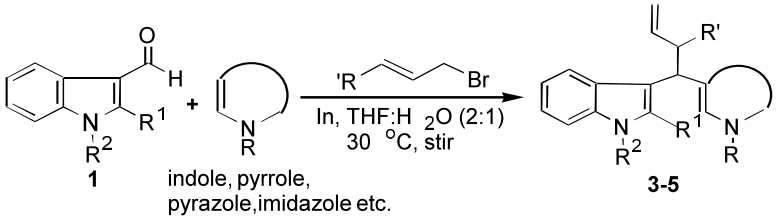
Tetrahedron Letters 44 (2003) 2101

Novel indium-mediated ternary reactions between indole-3-carboxaldehydes–allyl bromide–enamines: facile synthesis of bisindolyl- and indolyl-heterocyclic alkanes

Subodh Kumar,* Vijay Kumar and Swapandeep Singh Chimni

Department of Chemistry, Guru Nanak Dev University, Amritsar 143 005, India

Indole-3-carboxaldehydes undergo indium-mediated ternary reactions with allyl bromide and indoles and other heterocyclic enamines to provide the title compounds in excellent yields.

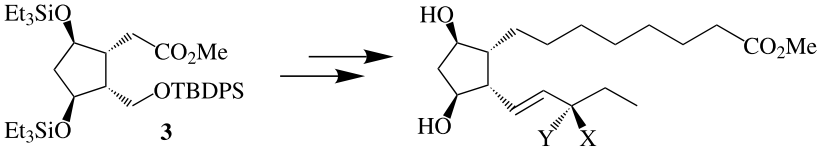


Tetrahedron Letters 44 (2003) 2105

Total synthesis of phytoprostane F_1 and its 16 epimer

Siham El Fangour, Alexandre Guy, Jean-Pierre Vidal, Jean-Claude Rossi and Thierry Durand*

UMR CNRS 5074, Université Montpellier I, Faculté de Pharmacie, 15. Av. Ch. Flahault, F-34093 Montpellier cedex 05, France



1 X=H, Y=OH

2 X=OH, Y=H

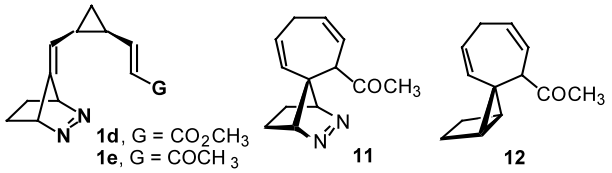
Tetrahedron Letters 44 (2003) 2109

Coping with substituent effects in divinylcyclopropyl diazene rearrangements

Georgia Law Carroll, Roy Harrison, James B. Gerken and R. Daniel Little*

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

Ketone **1e** and ester **1d** display distinctly different chemistries. It, along with that of spirocycles **11** and **12**, is discussed.

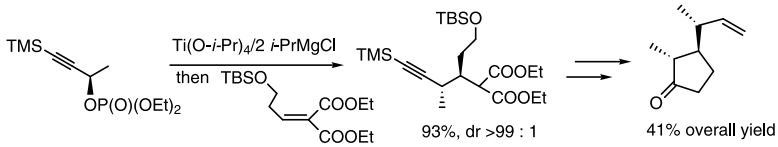


Tetrahedron Letters 44 (2003) 2113

An efficient synthesis of optically active (2*R*,3*R*)-2-methyl-3-[(1*R*)-1-methylprop-2-enyl]cyclopentanone, a useful chiral building block for synthesis of vitamin D and steroids

Yongcheng Song, Sentaro Okamoto and Fumie Sato*

Department of Biomolecular Engineering, Tokyo Institute of Technology, 4259, Nagatsuta-cho, Midori-ku, Yokohama, Kanagawa 226-8501, Japan



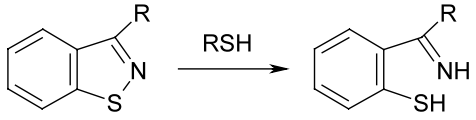
Tetrahedron Letters 44 (2003) 2117

Fast atom bombardment-promoted reductive ring opening of 1,2-benzisothiazoles

Thomas R. Sharp,[a,*] John F. Lambert[b] and Stanley W. Walinsky[b]

[a]*Analytical R&D Department, Pfizer Global Research & Development, Groton, CT 06340 USA*
[b]*Chemical R&D Department, Pfizer Global Research & Development, Groton, CT 06340 USA*

FAB mass spectral examination of molecules containing a 1,2-benzisothiazole ring, using a reducing thiol matrix, promotes reductive ring opening of the benzisothiazole ring. The ring-opened structure has been confirmed by chemical synthesis.

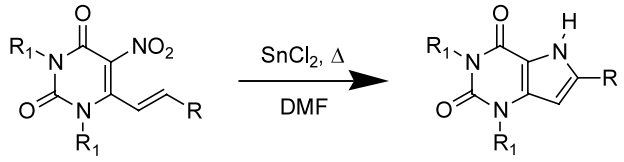


Tetrahedron Letters 44 (2003) 2121

Fast and highly efficient one-pot synthesis of 9-deazaxanthines

Angela Stefanachi, Francesco Leonetti, Anna Cappa and Angelo Carotti*

Dipartimento Farmaco-chimico, University of Bari, via Orabona 4, I-70125 Bari, Italy

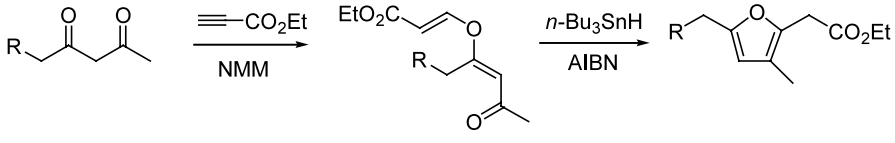


Tetrahedron Letters 44 (2003) 2125

Unusual *O*-conjugate addition reactions of β-ketoesters and 1,3-diketones to ethyl propynoate: applications to the synthesis of furans

Jinsung Tae* and Kwang-Ok Kim

Department of Chemistry, Yonsei University, Seoul 120-749, South Korea



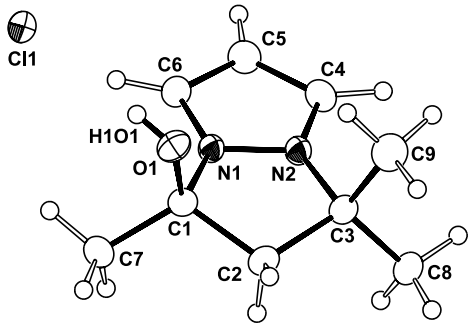
Tetrahedron Letters 44 (2003) 2129

1,4-Cycloaddition of pyrazole with mesityl oxide; solid-state structure of bicyclic $[C_6H_5Me_3N_2(OH)]Cl$

Andrey Mayboroda, Gerd Rheinwald and Heinrich Lang*

Technische Universität Chemnitz, Fakultät für Naturwissenschaften, Institut für Chemie, Lehrstuhl Anorganische Chemie, Straße der Nationen 62, D-09111 Chemnitz, Germany

The HCl-catalyzed preparation of bicyclic 6-hydroxy-6,8,8-dimethyl-5-aza-1-azonia-bicyclo[3.3.0]octa-1,3-diene chloride is reported.

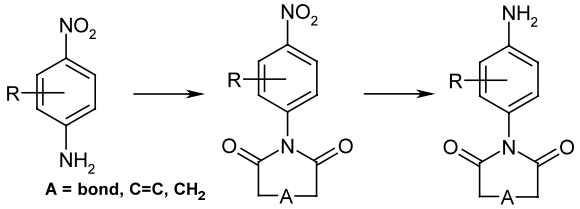


Tetrahedron Letters 44 (2003) 2133

A convenient synthesis of 4-aminoaryl substituted cyclic imides

Werner W. K. R. Mederski,* Manfred Baumgarth, Martina Germann, Dieter Kux and Thomas Weitzel

Merck KGaA, Preclinical Pharmaceutical Research, 64271 Darmstadt, Germany



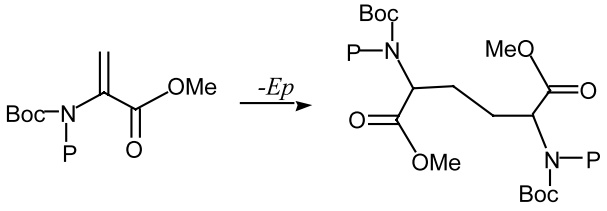
Tetrahedron Letters 44 (2003) 2137

Electrochemical synthesis of diaminodicarboxylic acid derivatives

Paula M. T. Ferreira, Hernâni L. S. Maia and Luís S. Monteiro*

Department of Chemistry, University of Minho, Gualtar, P-4710-057 Braga, Portugal

Diaminoadipic acid derivatives were synthesized in good yields by electrolysis of *N*,*N*-diacyldehydroalanines. Cyclic voltammetry measurements on the precursors are presented and interpreted as supporting formation of a nucleophilic intermediate generated by electrochemical reduction.



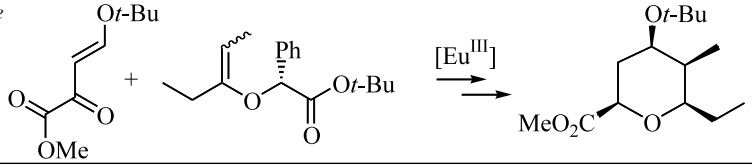
Tetrahedron Letters 44 (2003) 2141

Remarkable stereocontrol in the synthesis of 1,2,3,5-tetrasubstituted tetrahydropyrans via an asymmetric heterocycloaddition of a ketone-derived enol ether

Junfang Gong,[a] Eric Bonfand,[b] Eric Brown,[b] Gilles Dujardin,[b,*] Véronique Michelet[a,*] and Jean-Pierre Genêt[a]

[a]*Laboratoire de Synthèse Sélective Organique et Produits Naturels, E.N.S.C.P., UMR 7573, 11 rue P. et M. Curie, F-75231 Paris Cedex 05, France*

[b]*Laboratoire de Synthèse Organique, UPRES-A 6011 CNRS, Université du Mans, Faculté des Sciences, BP 535, avenue Olivier Messiaen, 72017 Le Mans Cedex, France*



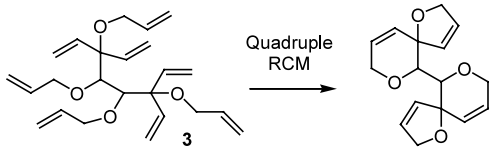
Tetrahedron Letters 44 (2003) 2145

A quadruple ring-closing metathesis reaction in the synthesis of bis-spirocyclic compounds: extending the scope of metathesis chemistry

Debra J. Wallace*

Department of Process Research, Merck Research Laboratories, P.O. Box 2000, Rahway, NJ 07065, USA

The first example of a quadruple ring-closing metathesis reaction is reported. The reaction of the C2 symmetric octaene **3** afforded bis-spirocyclic compounds in high yield.



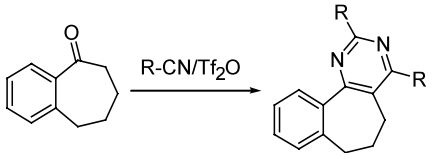
Tetrahedron Letters 44 (2003) 2149

One-pot synthesis of new heterocycles: 2,4-disubstituted 6,7-dihydro-5*H*-benzo[6,7]cyclohepta[1,2-*d*]pyrimidines

Antonio Herrera, Roberto Martínez-Alvarez,* Rachid Chioua and Mourad Chioua

Departamento de Química Orgánica, Facultad de Ciencias Químicas, Universidad Complutense, E-28040 Madrid, Spain

The reaction of 1-benzosuberone with nitriles in presence of Tf_2O affords the 2,4-disubstituted benzocycloheptapyrimidines in good yields.



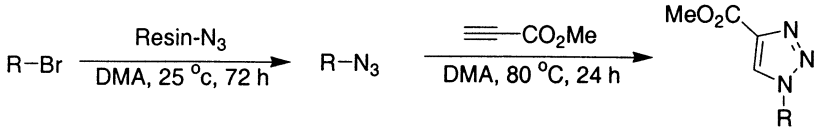
Tetrahedron Letters 44 (2003) 2153

Applications of solid supported azide anion: a one-pot, two-step preparation of functionalized 1,2,3-triazoles

Benjamin E. Blass,[a,*] Keith R. Coburn,[a] Amy L. Faulkner,[a] William L. Seibel[a] and Anil Srivastava[b]

[a]*Procter & Gamble Pharmaceuticals, Health Care Research Center, 8700 Mason Montgomery Road, Mason, OH 45040, USA*
[b]*Chembiotek Research International, Salt Lake, Block BN, /Sector V, Kolkata 700091, India*

Functionalized 1,2,3-triazoles were prepared in a one-pot, two-step synthesis from alkyl halides and alkynes using a polymer supported azide. Two different base resins were examined, and the chemistry is suitable for the preparation of combinatorial libraries.

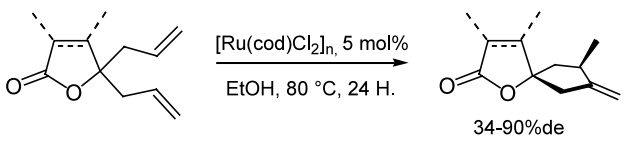


Tetrahedron Letters 44 (2003) 2157

Diastereoselective ruthenium-catalysed cycloisomerisation of diallyllactones: preparation of *exo*-methylene spirolactones

Mathieu Michaut, Maurice Santelli and Jean-Luc Parrain*

Laboratoire de Synthèse Organique, UMR CNRS 6009, Faculté des Sciences de Saint Jérôme, 13397 Marseille, France

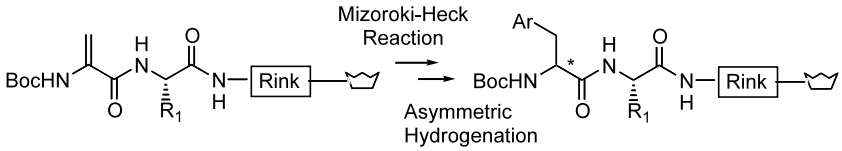


Tetrahedron Letters 44 (2003) 2161

Palladium(0)-catalyzed Mizoroki–Heck reaction and Rh(I)-catalyzed asymmetric hydrogenation of polymer-supported dehydroalanine system

Takayuki Doi, Nobuaki Fujimoto, Jun Watanabe and Takashi Takahashi*

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



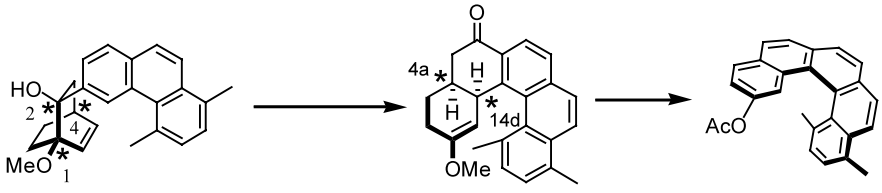
Tetrahedron Letters 44 (2003) 2167

Synthesis of chiral [5]helicenes using aromatic oxy-Cope rearrangement as a key step

Yasushi Ogawa,[a] Masahito Toyama,[a] Michinori Karikomi,[a,*] Katsura Seki,[b] Kazuo Haga[a] and Tadao Uyehara[a]

[a]*Department of Applied Chemistry, Faculty of Engineering, Utsunomiya University, Utsunomiya 321-8585, Japan*

[b]*Center for Instrumental Analysis, Utsunomiya University, Utsunomiya 321-8585, Japan*



(1*R*, 2*S*, 4*S*) (4a*S*, 14d*R*) (*P*)-(+)

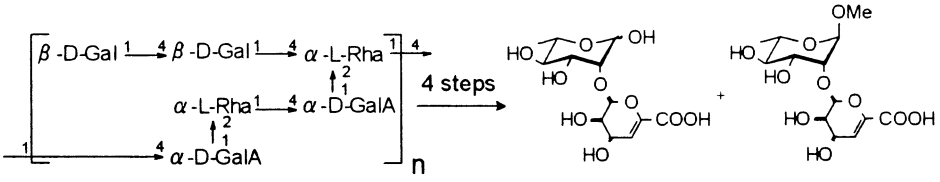
Tetrahedron Letters 44 (2003) 2171

Preparation of a growth-promoting substance, lepidimoic acid, from okra pectic polysaccharide

Katsutoshi Hirose,[a,b,*] Yasutaka Kosuge,[b] Toshihiko Otomatsu,[b] Keiichiro Endo[b] and Koji Hasegawa[a]

[a]*Institute of Applied Biochemistry, University of Tsukuba, Tsukuba, Ibaraki 305-8572, Japan*

[b]*KNC Laboratories Co., Ltd., 3-2-34 Takatsukadai, Nishiku, Kobe 651-2271, Japan*



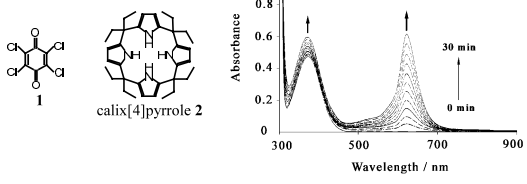
Tetrahedron Letters 44 (2003) 2175

New non-covalent charge–transfer complex of calix[4]pyrrole–chloranil: as a potential colorimetric anion sensor

Shijun Shao,* Yong Guo, Lijun He, Shengxiang Jiang and Xianda Yu

Lanzhou Institute of Chemical Physics, Chinese Academy of Sciences, Lanzhou 730000, PR China

A new charge–transfer absorption band ($\lambda_{max} = 622$ nm) elicits in long-wave region of the spectrum upon addition of calix[4]pyrrole **2** (20 mM) to the $CHCl_3$ solution of chloranil **1** (2 mM). The novel charge–transfer aggregation of calix[4]pyrrole–chloranil may be used as a simple class of colorimetric anion sensors for the facile identification of F^- and $H_2PO_4^-$ ions.

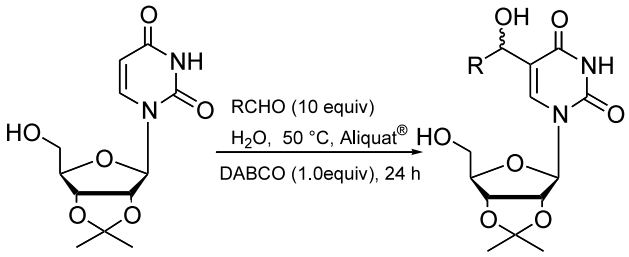


Tetrahedron Letters 44 (2003) 2179

A novel chemical modification at the 5-position of uridine derivatives

Hironao Sajiki, Akira Yamada, Kanoko Yasunaga, Takashi Tsunoda, Mumen F. A. Amer and Kosaku Hirota*

Laboratory of Medicinal Chemistry, Gifu Pharmaceutical University, Gifu 502-8585, Japan

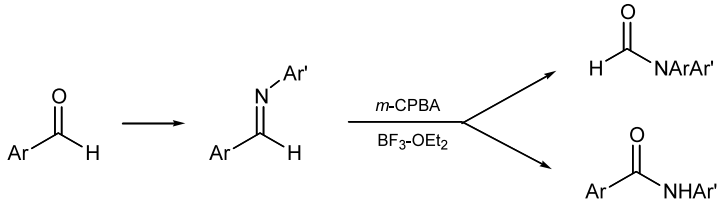


Tetrahedron Letters 44 (2003) 2183

Oxidation of aldimines to amides by *m*-CPBA and $BF_3{\cdot}OEt_2$

Gwang-il An,[a] Misoo Kim,[b] Jin Yeon Kim[c] and Hakjune Rhee[a,*]

[a]*Department of Chemistry, Hanyang University, Ansan, Kyunggi-Do 425-791, Republic of Korea*
[b]*Department of Basic Science, Hankyong National University, Ansung, Kyunggi-Do 456-749, Republic of Korea*
[c]*Department of Chemistry, Seonam University, Namweon, Chunrabuk-Do 590-170, Republic of Korea*



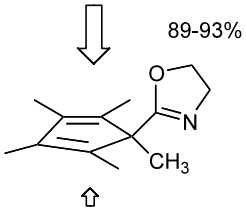
Tetrahedron Letters 44 (2003) 2187

De novo designed contrasteric Diels–Alder reactions of 5-(2-oxazolynyl)-1,2,3,4,5-pentamethylcyclopentadiene

Masaru Ishida,* Satomi Hirasawa and Satoshi Inagaki

Department of Chemistry, Faculty of Engineering, Gifu University, Yanagido, Gifu 501-1193, Japan

5-(2-Oxazolynyl)cyclopentadiene was designed on the basis of the orbital mixing rule to react with dienophiles with highly contrasteric manner in Diels–Alder reactions.



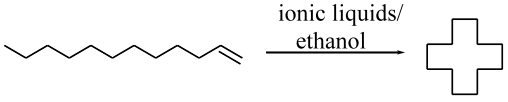
Tetrahedron Letters 44 (2003) 2191

A novel reaction in ionic liquids: selective cyclization of 1-dodecene to cyclododecane under moderate pressure

Kun Qiao and Youquan Deng*

Centre for Green Chemistry and Catalysis, Lanzhou Institute of Chemical Physics, The Chinese Academy of Sciences, Lanzhou 730000, PR China

A novel reaction of cyclization of 1-dodecene to cyclododecane with high selectivity, especially under moderate pressure, is found in ethanol buffered chloroaluminate ionic liquids with easy separation of product duo to the immiscibility with ionic liquids.

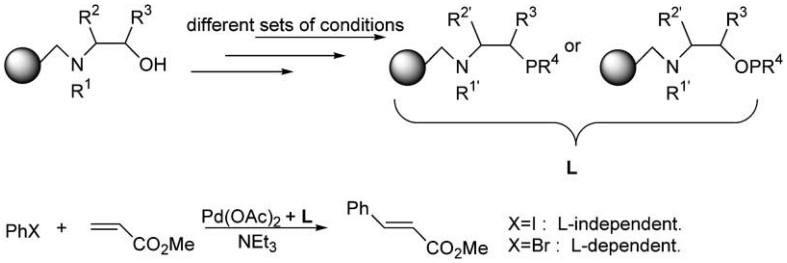


Synthesis of a diverse set of phosphorus ligands on solid support and their screening in the Heck reaction

Tetrahedron Letters 44 (2003) 2195

Amal Mansour and Moshe Portnoy*

School of Chemistry, Raymond and Beverly Sackler Faculty of Exact Sciences, Tel Aviv University, Tel Aviv 69978, Israel



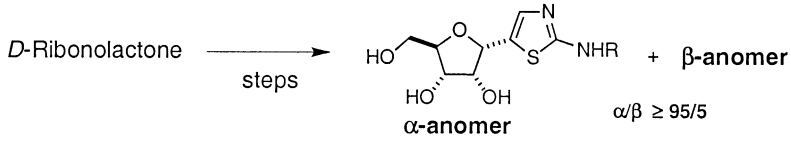
A short and highly stereoselective synthesis of α-(2-aminothiazolyl)-C-nucleosides

Tetrahedron Letters 44 (2003) 2199

Jean-Michel Navarre,[a] Dominique Guianvarc'h,[b] Audrey Farese-Di Giorgio,[a] Roger Condom[a] and Rachid Benhida[a,b,*]

[a]*Laboratoire de Chimie Bioorganique UMR 6001CNRS, Université de Nice-Sophia Antipolis, Parc Valrose, 06108 Nice Cedex 2, France*

[b]*Institut de Chimie des Substances Naturelles, CNRS, 1 Avenue de la Terrasse, 91198 Gif-sur-Yvette, France*



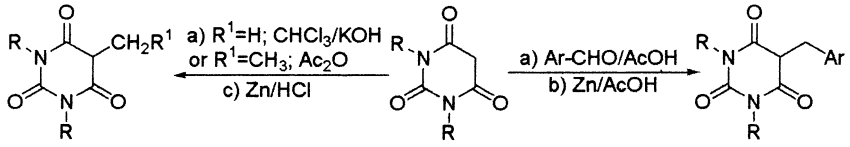
Mono *C*-alkylation and mono *C*-benzylation of barbituric acids through zinc/acid reduction of acyl, benzylidene, and alkylidene barbiturate intermediates

Tetrahedron Letters 44 (2003) 2203

Branko S. Jursic* and Edwin D. Stevens

Department of Chemistry, University of New Orleans, New Orleans, LA 70148, USA

A very efficient two step synthetic procedures for the *C*-alkylation of barbituric acid derivatives that involves zinc dust reduction is presented.

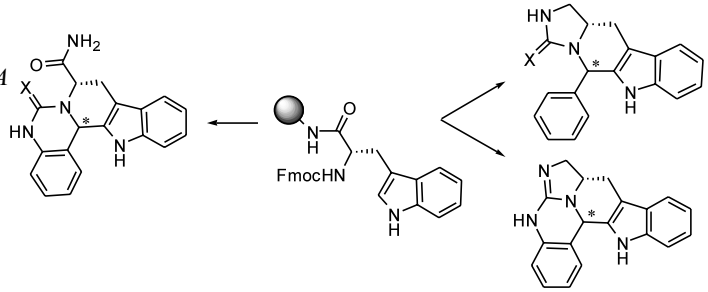


Solid-phase synthesis of new fused tetra, penta and hexacyclic β-carboline derivatives

Tetrahedron Letters 44 (2003) 2211

Gérard Klein, John M. Ostresh and Adel Nefzi,*

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

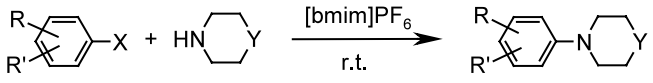


Tetrahedron Letters 44 (2003) 2217

[Bmim]PF_6 and BF_4 ionic liquids as novel and recyclable reaction media for aromatic amination

J. S. Yadav,* B. V. S. Reddy, A. K. Basak and A. Venkat Narsaiah

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

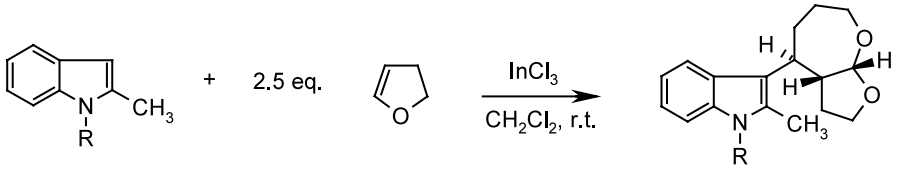


Tetrahedron Letters 44 (2003) 2221

Unprecedented $InCl_3$-catalyzed formation of *cis*-fused perhydrofuro[2,3-*b*]oxepines

J. S. Yadav,[a,*] B. V. S. Reddy,[a] G. Satheesh,[a] A. Prabhakar[b] and A. C. Kunwar[b]

[a]*Division of Organic Chemistry, Indian Institute of Chemical Technology, Hyderabad 500 007, India*
[b]*Centre for Nuclear Magnetic Resonance, Indian Institute of Chemical Technology, Hyderabad 500 007, India*

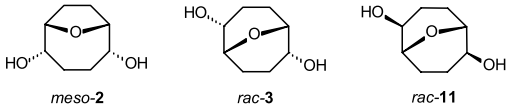


Tetrahedron Letters 44 (2003) 2225

Selectivity of *Candida rugosa* lipase in simultaneous separation of skeletal isomers, desymmetrization, and kinetic racemate cleavage of 9-oxabicyclononanediols

Klaus Hegemann,[a] Holger Schimanski,[a] Udo Höweler[b] and Günter Haufe[a,*]

[a]*Organisch-Chemisches Institut, Westfälische Wilhelms-Universität Münster, Corrensstraße 40, D-48149 Münster, Germany*
[b]*CHEOPS, Zur Quelle 6, D-48341 Altenberge, Germany*



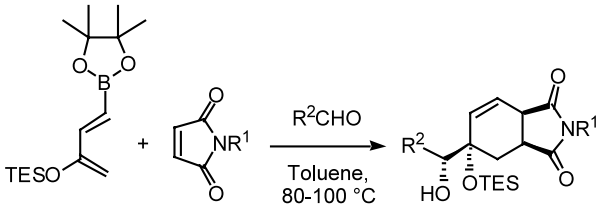
meso-**2** *rac*-**3** *rac*-**11**

Tetrahedron Letters 44 (2003) 2231

New electronically enriched boronobutadienes for the synthesis of hydroxylated cyclohexenes via tandem [4+2]/allylboration

Xuri Gao and Dennis G. Hall*

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



Tetrahedron Letters 44 (2003) 2237

Synthesis of ferrocenyl quinones

Metin Zora,* Baris Yucel and Serdar Acikalin

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

A squarate-based synthesis of ferrocenyl quinones is described.