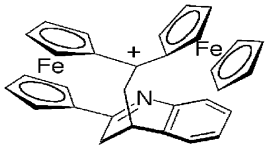
A new insight into the problem of stabilisation of α-carbocationic centres in the ferrocene series

Tetrahedron Letters 43 (2002) 4717

Alberto Tárraga,[a,*] Pedro Molina,[a,*] Juan Luis López,[a] Arturo Espinosa[a] and David J. Evans[b]

[a]*Departamento de Química Orgánica, Facultad de Química, Universidad de Murcia, Campus de Espinardo, E-30100 Murcia, Spain*

[b]*Department of Biological Chemistry, John Innes Centre, Norwich Research Park, Colney, Norwich NR4 7UH, UK*



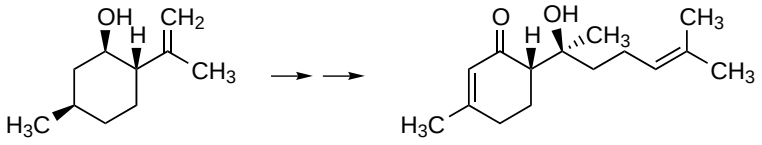
Synthesis of (+)-hernandulcin and (+)-epihernandulcin

Tetrahedron Letters 43 (2002) 4721

Jung Hun Kim, Hyun Jin Lim and Seung Hoon Cheon*

College of Pharmacy & Research Institute of Drug Development, Chonnam National University, 300 Yongbong-Dong, Buk-Ku, Kwangju 500-757, South Korea

(+)-Hernandulcin was synthesized from (−)-isopulegol with 15% overall yield.



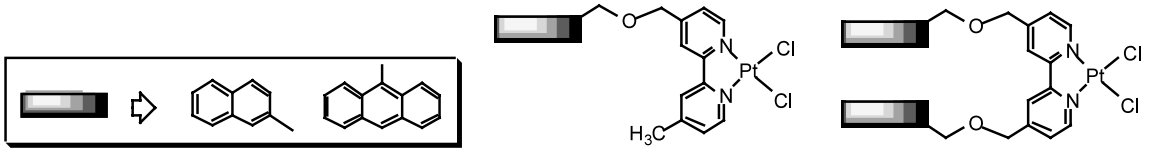
Anthracene and naphthalene (2,2′-bipyridine)platinum(II) conjugates: synthesis and DNA photocleavage

Tetrahedron Letters 43 (2002) 4723

Lourdes Gude,[a] María-José Fernández,[a] Kathryn B. Grant[b,*] and Antonio Lorente[a,*]

[a]*Departamento de Química Orgánica, Universidad de Alcalá, 28871 Alcalá de Henares, Madrid, Spain*

[b]*Department of Chemistry, Center for Biotechnology and Drug Design, Georgia State University, University Plaza, Atlanta, GA 30303, USA*

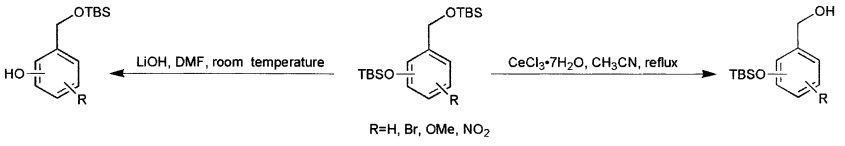


Selective deprotection of either alkyl or aryl silyl ethers from aryl, alkyl bis-silyl ethers

Tetrahedron Letters 43 (2002) 4729

Sudha V. Ankala and Gabriel Fenteany*

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

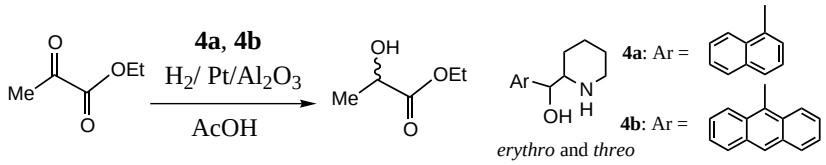


Tetrahedron Letters 43 (2002) 4733

New chiral modifiers in enantioselective heterogeneous catalytic hydrogenation of ethyl pyruvate over Pt/Al_2O_3: chiral amino alcohols derived from piperidine

A. Solladié-Cavallo,[a,*] C. Marsol[a,b] and F. Garin[b]

[a]*Laboratoire de Stéréochimie Organométallique, ECPM/Université Louis Pasteur, 25 rue Becquerel, 67087 Strasbourg, France*
[b]*LMSPC, ECPM/Université Louis Pasteur, 25 rue Becquerel, 67087 Strasbourg, Cedex 02, France*



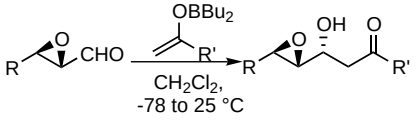
Tetrahedron Letters 43 (2002) 4737

Stereoselective aldol condensation of boron enolates to *trans* α,β-epoxy aldehydes

Giuliana Righi,[a,*] Francesca Spirito[a] and Carlo Bonini[b]

[a]*Istituto di Chimica Biomolecolare-Sezione di Roma, c/o Dipartimento di Chimica, Università 'La Sapienza', P. le A. Moro 5, 00185 Roma, Italy*
[b]*Dipartimento di Chimica, Università della Basilicata, Via N. Sauro 85, 85100 Potenza, Italy*

A study on the addition of boron enolates of methyl ketones to *trans* α,β-epoxy aldehydes is reported. The reaction proceeds with an excellent *anti* stereoselectivity, consistent with the Felkin–Ahn model, toward the synthesis of hydroxylate compounds with defined stereochemistry.

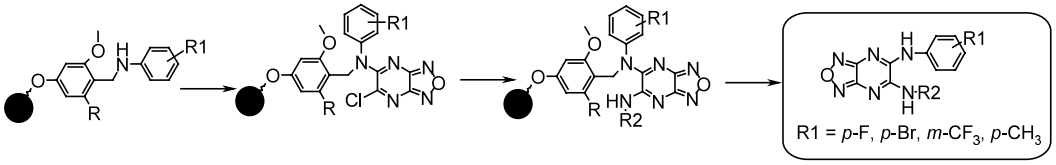


Tetrahedron Letters 43 (2002) 4741

Solid-phase versus solution synthesis of asymmetrically disubstituted furazano[3,4-*b*]pyrazines

E. Fernández,[a] S. García-Ochoa,[a] S. Huss,[a] A. Mallo,[a] J. M. Bueno,[a,*] F. Micheli,[b] A. Paio,[b] E. Piga[b] and P. Zarantonello[b]

[a]*GlaxoSmithKline S.A. P.T.M., Severo Ochoa, 2 E-28760 Tres Cantos, Madrid, Spain*
[b]*GlaxoSmithKline Medicine Research Centre, Via Alessandro Fleming, 4-37135 Verona, Italy*

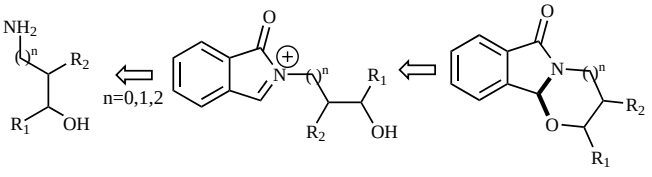


Tetrahedron Letters 43 (2002) 4747

Acid-mediated intramolecular cationic cyclization using an oxygen atom as internal nucleophile: synthesis of substituted oxazolo-, oxazino- and oxazepinoisoindolinones

Jana Sikoraiová,[a] Štefan Marchalín,[a] Adam Daïch[b,*] and Bernard Decroix[b]

[a]*Department of Organic Chemistry, Slovak University of Technology, Radlinského 9, Sk-81237 Bratislava, Slovakia*
[b]*Laboratoire de Chimie de l'Université du Havre, Faculté des Sciences & Techniques, URCOM, EA 3221, 25 Rue Philippe Lebon, B.P. 540, F-76058 Le Havre, Cedex, France*



Various substituted bicyclic lactams **5**–**7**, **12**–**15** and **19** as oxazolo-, oxazino- and oxazepinoisoindolinones were synthesized efficiently in an acidic medium from phthalic anhydride and amino-alcohols **1**, **8** and **17** in three sequential set.

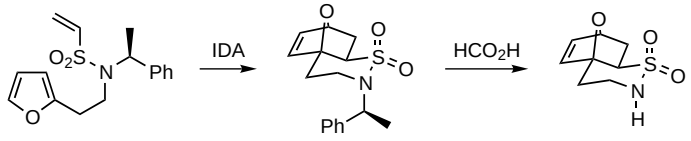
Tetrahedron Letters 43 (2002) 4753

Preparation of enantiopure sultams by intramolecular Diels–Alder reaction of furan-containing vinylsulfonamides

Viktor O. Rogatchov,[a] Heiko Bernsmann,[a] Pia Schwab,[a] Roland Fröhlich,[b] Birgit Wibbeling[b] and Peter Metz[a,*]

[a]*Institut für Organische Chemie, Technische Universität Dresden, Bergstraße 66, D-01069 Dresden, Germany*
[b]*Organisch-Chemisches Institut, Universität Münster, Corrensstraße 40, D-48149 Münster, Germany*

N-1-Phenylethyl substituted δ- and γ-sultams have been prepared by thermal and high pressure intramolecular [4+2] cycloaddition. Reductive debenzylation of the δ-sultams is also reported.

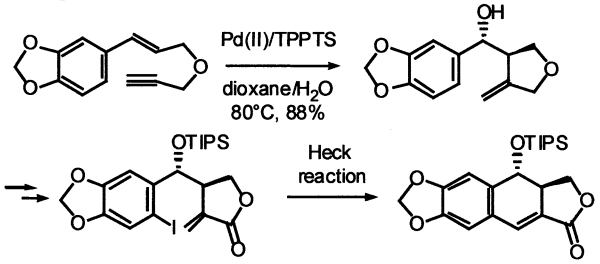


Tetrahedron Letters 43 (2002) 4757

Pd-catalyzed route to (±)-podophyllotoxin skeleton. Synthesis of the aryltetralin derivative

Lise Charruault, Véronique Michelet* and Jean-Pierre Genêt*

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

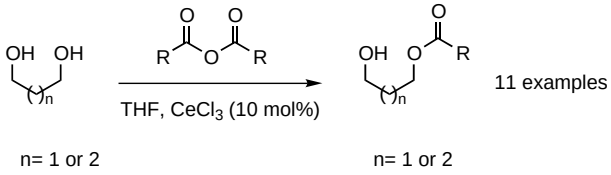


Tetrahedron Letters 43 (2002) 4761

Selective mono-acylation of *meso*- and C_2-symmetric 1,3- and 1,4-diols

Paul A. Clarke*

School of Chemistry, University of Nottingham, University Park, Nottingham NG7 2RD, UK



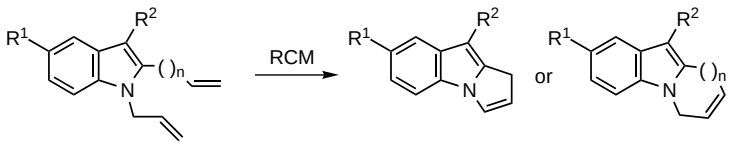
Tetrahedron Letters 43 (2002) 4765

RCM in indoles. A new entry to the mitosene skeleton

Patxi González-Pérez, Leticia Pérez-Serrano, Luis Casarrubios, Gema Domínguez and Javier Pérez-Castells*

Departamento de Química, Facultad de Ciencias Experimentales y de la Salud, Universidad San Pablo-CEU, Urb. Montepríncipe, Boadilla del Monte, 28668 Madrid, Spain

Functionalized indoles lead to the mitosene skeleton and other polycycloindoles via RCM reactions.

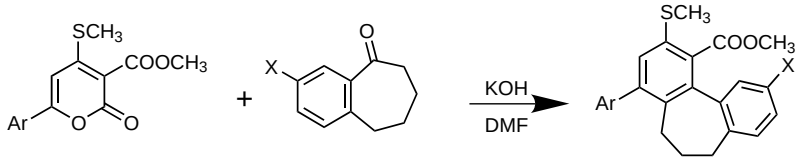


Tetrahedron Letters 43 (2002) 4769

Carbanion induced synthesis of dibenzo[*a*,*c*]cycloheptenes through ring transformation reactions of 2*H*-pyran-2-one

Vishnu Ji Ram* and Nidhi Agarwal

Medicinal Chemistry Division, Central Drug Research Institute, Lucknow 226001, India



1 **2** **3**

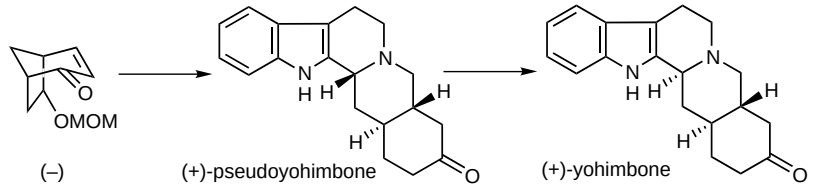
X=H, F

Tetrahedron Letters 43 (2002) 4773

A concise enantiocontrolled route to yohimbones using a bicyclo[3.2.1]octane chiral building block

Norio Miyazawa and Kunio Ogasawara*

Pharmaceutical Institute, Tohoku University, Aobayama, Sendai 980-8578, Japan

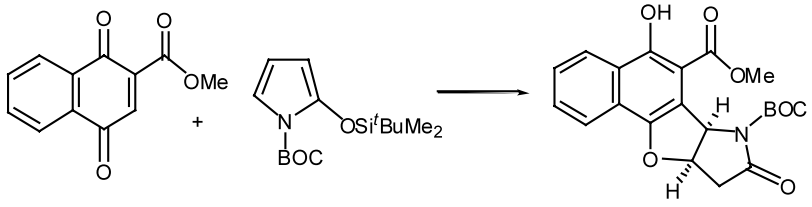


Tetrahedron Letters 43 (2002) 4777

Uncatalyzed addition of *N*-(*tert*-butoxycarbonyl)-2-*tert*-butyldimethylsilyloxypyrrole to activated quinones

Margaret A. Brimble,* Rosliana Halim and Maria Petersson

Department of Chemistry, University of Auckland, 23 Symonds St., Auckland, New Zealand

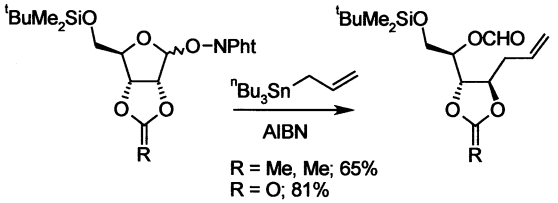


Tetrahedron Letters 43 (2002) 4781

Sequential alkoxy radical fragmentation–intermolecular allylation in carbohydrate systems

Angeles Martín, Inés Pérez-Martín and Ernesto Suárez*

Instituto de Productos Naturales y Agrobiología del CSIC, Carretera de La Esperanza 3, 38206 La Laguna, Tenerife, Spain



R = Me, Me; 65%
R = O; 81%

NPht = *N*-phthalimido group.

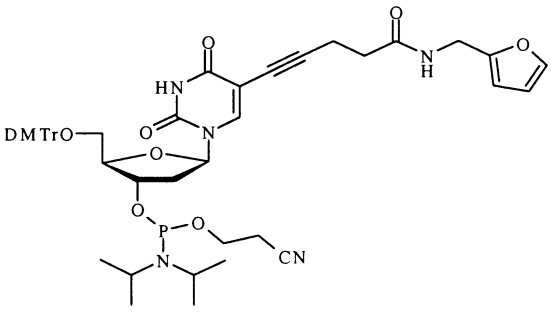
Internal labeling of oligonucleotide probes by Diels–Alder cycloaddition

Tetrahedron Letters 43 (2002) 4785

Duncan Graham,* Antonio Grondin, Callum McHugh, Ljiljana Fruk and W. Ewen Smith

Department of Pure and Applied Chemistry, University of Strathclyde, 295 Cathedral Street, Glasgow G1 1XL, UK

Synthesis of a furan modified deoxyuridine phosphoramidite that was used to add fluorescent maleimides to the middle of an oligonucleotide is reported.



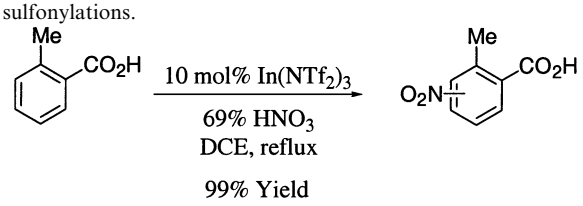
Counterion effects in indium-catalysed aromatic electrophilic substitution reactions

Tetrahedron Letters 43 (2002) 4789

Christopher G. Frost,[a,*] Joseph P. Hartley[a] and David Griffin[b]

[a]*Department of Chemistry, University of Bath, Calverton Down, Bath BA2 7AY, UK*
[b]*Syngenta, Jealott's Hill International Research Centre, Bracknell, Berkshire RG42 6ET, UK*

Indium(III) triflamide ($In(NTf_2)_3$) has been prepared in high yield and has been demonstrated to be an efficient, recoverable catalyst for aromatic nitrations, acetylations and sulfonylations.

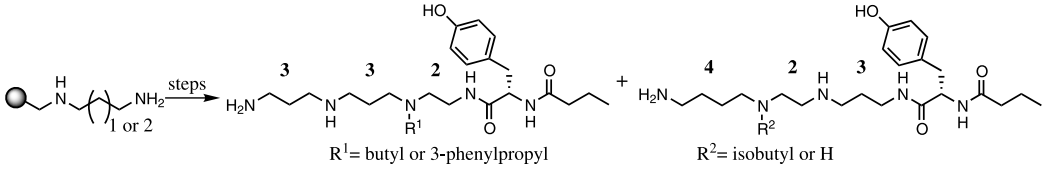


Solid-phase synthesis of PhTX-3.2.4 and PhTX-2.3.3 derivatives

Tetrahedron Letters 43 (2002) 4793

Daniel Jönsson*

Department of Neurochemistry & Neurotoxicology, Stockholm University, S-10691 Stockholm, Sweden

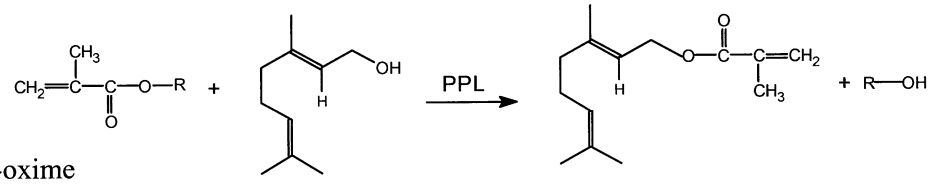


Lipase-catalyzed synthesis of geranyl methacrylate by transesterification: study of reaction parameters

Tetrahedron Letters 43 (2002) 4797

Vilas Athawale,* Narendra Manjrekar and Manoj Athawale

Department of Chemistry, University of Mumbai, Vidyanagari, Santacruz (E), Mumbai 400 098, India



R = 2,3-butanedione mono-oxime
PPL = Porcine pancreatic lipase

Geraniol

Geranyl methacrylate

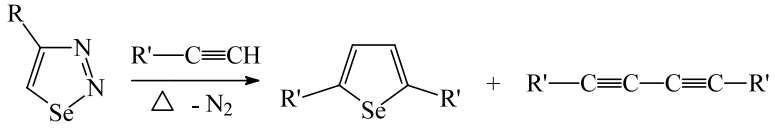
Tetrahedron Letters 43 (2002) 4817

A novel method for the synthesis of 2,5-diarylselenophenes

Pavel Arsenyan,* Olga Pudova and Edmunds Lukevics

Latvian Institute of Organic Synthesis, Aizkraukles 21, Riga, LV-1006, Latvia

The reaction of 4-phenyl- or (2-thienyl)-1,2,3-selenadiazoles with 10 equiv. of arylacetylenes leads to the formation of 2,5-diarylselenophenes in moderate to good yields and 1,4-diarylbuta-1,3-diynes as by-products.



1, 2 **3-5** **6-8**

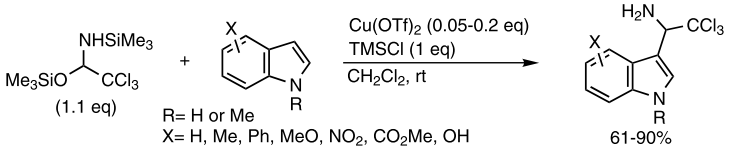
R=Ph, 2-Thienyl; R'=Ph, 2-Py, 2-Me-5-Py

Tetrahedron Letters 43 (2002) 4821

Friedel–Crafts reaction of indoles with *N*-silyl-*N*,*O*-acetal catalyzed by $Cu(OTf)_2$ in the presence of TMSCl leading to indolyl primary amines

Norio Sakai,* Toshihiro Hamajima and Takeo Konakahara*

Department of Pure and Applied Chemistry, Faculty of Science and Technology, Tokyo University of Science, Noda, Chiba 278-8510, Japan

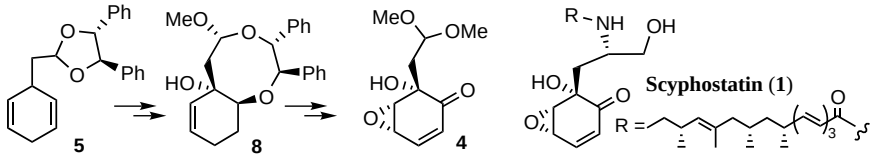


Tetrahedron Letters 43 (2002) 4825

Concise asymmetric synthesis of a model compound, (4*S*,5*S*,6*S*)-6-(2,2-dimethoxy)ethyl-4,5-epoxy-6-hydroxy-2-cyclohexenone, for the cyclohexenone core of scyphostatin

Hiromichi Fujioka,* Naoyuki Kotoku, Yoshinari Sawama, Yasushi Nagatomi and Yasuyuki Kita*

Graduate School of Pharmaceutical Sciences, Osaka University, 1-6 Yamada-oka, Suita, Osaka 565-0871, Japan

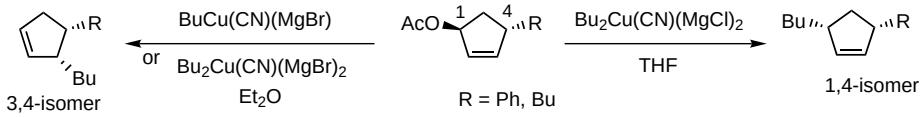


Tetrahedron Letters 43 (2002) 4829

Alkylation of 4-substituted 1-acetoxy-2-cyclopentenes by using copper reagents derived from alkylmagnesium halides and copper(I) cyanide

Yuichi Kobayashi,* Michiko Ito and Junji Igarashi

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



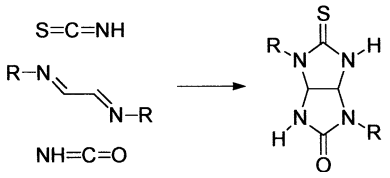
A new route to 1,4-disubstituted 5-thioxoperhydroimidazo[4,5-*d*]-imidazol-2-ones

Tetrahedron Letters 43 (2002) 4833

Jiří Verner,[a] Jan Taraba[b] and Milan Potáček[a,*]

[a]*Department of Organic Chemistry, Faculty of Science, Masaryk University of Brno, Kotlářská 2, 611 37 Brno, Czech Republic*
[b]*Department of Inorganic Chemistry, Faculty of Science, Masaryk University of Brno, Kotlářská 2, 611 37 Brno, Czech Republic*

1,4-Disubstituted 5-thioxoperhydroimidazo[4,5-*d*]imidazol-2-ones were prepared by one-pot criss-cross cycloaddition.

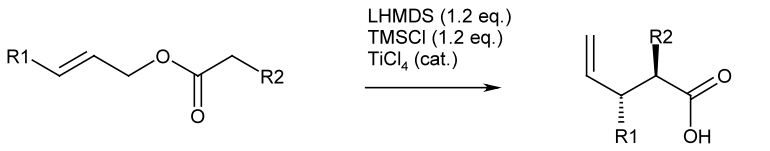


Highly diastereoselective Lewis acid promoted Claisen–Ireland rearrangement

Tetrahedron Letters 43 (2002) 4837

Guido Koch,* Philipp Janser, Georg Kottirsch and Eva Romero-Giron

Novartis Pharma AG, Postfach, CH-4002 Basel, Switzerland



R1, R2 = alkyl, aryl

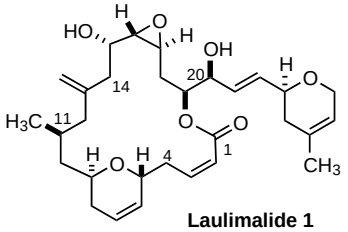
erythro/threo up to 15:1

Synthesis of (−)-laulimalide: an agent for microtubule stabilization

Tetrahedron Letters 43 (2002) 4841

David R. Williams,* Liang Mi, Richard J. Mullins and Ryan E. Stites

Department of Chemistry, Indiana University, 800 East Kirkwood Avenue, Bloomington, IN 47405-7102, USA



Laulimalide 1

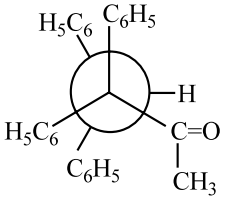
The synthesis of 3,3,4,4-tetraphenyl-2-butanone from 1,1-diphenylacetone

Tetrahedron Letters 43 (2002) 4845

Herman E. Zieger,[a,*] Choi Han Tsang,[a] Mohammed Malik[a] and Louis J. Todaro[b]

[a]*Department of Chemistry, Brooklyn College of CUNY, 2900 Bedford Avenue, Brooklyn, NY 11210, USA*
[b]*Department of Chemistry, Hunter College of CUNY, 695 Park Avenue, New York, NY 10021, USA*

The diphenylmethylene enolate from 1,1-diphenylacetone is alkylated with diphenylmethylhalides to form 3,3,4,4-tetraphenyl-2-butanone. Single crystal X-ray shows the acetyl group between the eclipsed and *gauche* conformations.

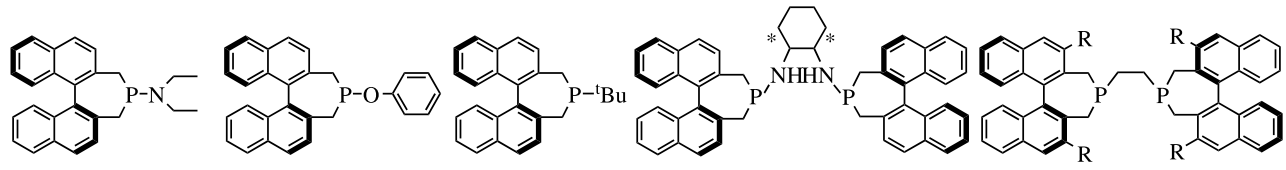


Tetrahedron Letters 43 (2002) 4849

Synthesis of novel chiral binaphthyl phosphorus ligands and their applications in Rh-catalyzed asymmetric hydrogenation

Yongxiang Chi and Xumu Zhang*

Department of Chemistry, Pennsylvania State University, University Park, PA 16802, USA

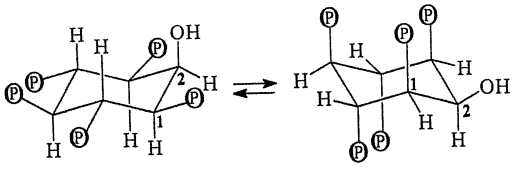


Tetrahedron Letters 43 (2002) 4853

Conformational flexibility of inositol phosphates: influence of structural characteristics

Carla J. Volkmann,[a] Ginger M. Chateauneuf,[a] Jyotsna Pradhan,[b] Andrew T. Bauman,[a] Richard E. Brown[a,*] and Pushpalatha P. N. Murthy[a,*]

[a]*Department of Chemistry, Michigan Technological University, Houghton, MI 49931, USA*
[b]*Department of Natural Sciences, University of North Florida, Jacksonville, FL 32224, USA*



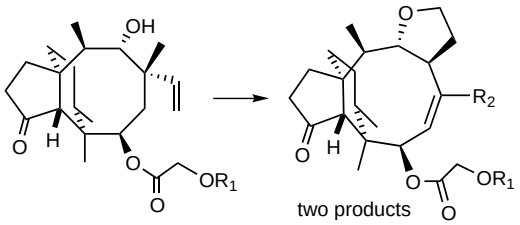
Tetrahedron Letters 43 (2002) 4857

A novel ring expansion of the pleuromutilin skeleton

Dane M. Springer,[a,*] Jason T. Goodrich[a] and Stella Huang[b]

[a]*Anti-infective Chemistry, Bristol-Myers Squibb Pharmaceutical Research Institute, 5 Research Parkway, PO Box 5100, Wallingford, CT 06492, USA*
[b]*Discovery Analytical Sciences, Bristol-Myers Squibb Pharmaceutical Research Institute, 5 Research Parkway, PO Box 5100, Wallingford, CT 06492, USA*

An unprecedented cyclooctane to cyclononene ring expansion in the pleuromutilin skeleton has been discovered. The process entails an intramolecular cyclization of an oxonium ion into an olefin, followed by 1,2 migration of a carbon of the cyclooctane ring.

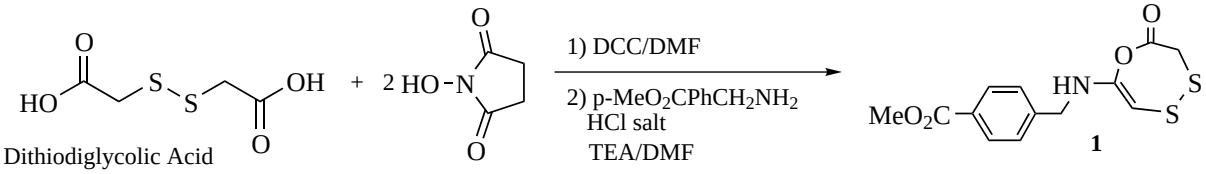


Tetrahedron Letters 43 (2002) 4861

Unexpected reactions of dithiodiglycolic acid: isolation of a novel seven-membered ring system based on a 2-amino derivative of 7-oxo-6,7-dihydro-[1,4,5]oxadithiepine

Min Li,* Robert S. Wu, Jane Tsai and Salvatore J. Salamone

Roche Diagnostic Corporation, 9115 Hague Road, Indianapolis, IN 46250, USA

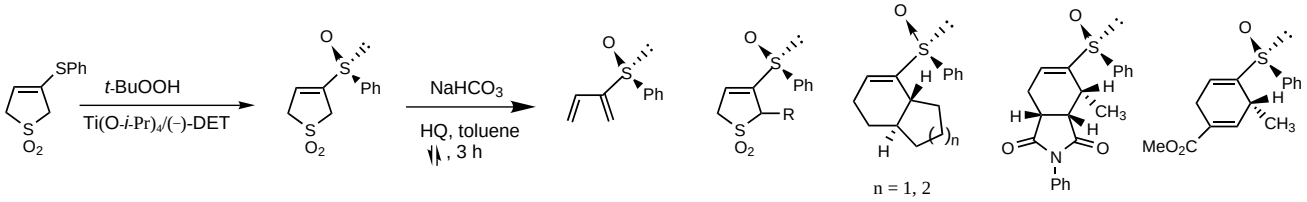


Asymmetric synthesis and applications of chiral 3-phenylsulfinyl-3-sulfolenes

Tetrahedron Letters 43 (2002) 4865

Shang-Shing P. Chou* and Pi-Wei Liang

Department of Chemistry, Fu Jen Catholic University, Taipei, Taiwan 242, Republic of China



Chemical and physical evidence for metal–metal interchange between lithium alkoxides and di-*n*-butylmagnesium

Tetrahedron Letters 43 (2002) 4871

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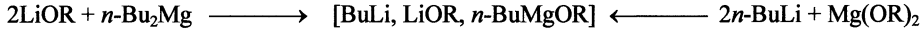

Stereoselective cyclizations mediated by functionalized organomagnesium reagents and catalyzed by cobalt or copper salts

Tetrahedron Letters 43 (2002) 4875

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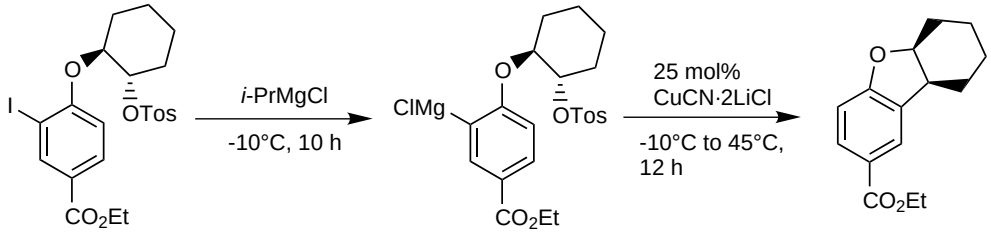

Effective *face-to-face* dimerization of a crown ether appended *N*-confused porphyrin

Tetrahedron Letters 43 (2002) 4881

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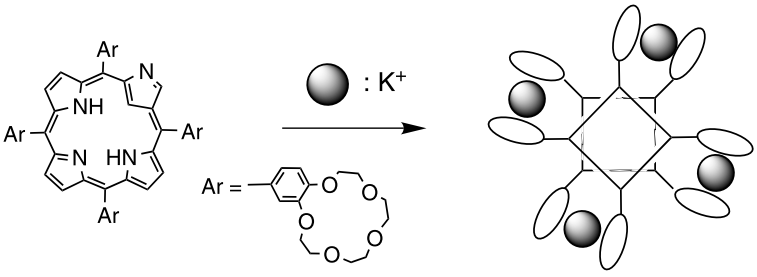

Synthesis of the C(18)–C(26) segment of superstolide A

Tetrahedron Letters 43 (2002) 4885

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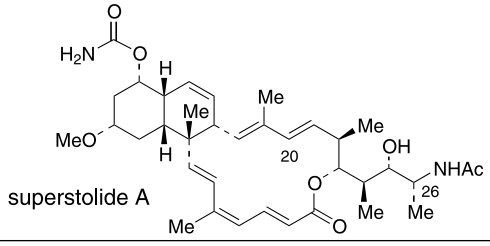

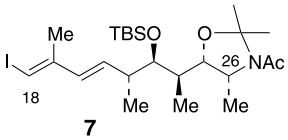

Synthesis of D-*ribo*-C_{18}-phytosphingosine from D-glucosamine via the D-allosamine derivatives as key intermediates

Tetrahedron Letters 43 (2002) 4889

Shun-Yuan Luo,[a] Shankar R. Thopate,[a] Ching-Yun Hsu[b] and Shang-Cheng Hung[a,*]

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[b]*Department of Chemical Engineering, Cheng-Shiu Institute of Technology, 840 Cheng-Ching Road, Kaohsiung County 833, Taiwan*

A straightforward synthesis of D-*ribo*-C_{18}-phytosphingosine from D-glucosamine hydrochloride in ten steps in 18.4% overall yield via the D-allosamine derivatives as key intermediates is described here.