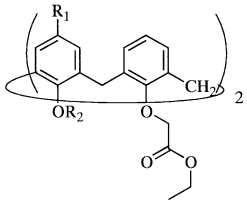
Synthesis of novel chromogenic bi- and tri-functionalized calix[4]arenes

Tetrahedron Letters 43 (2002) 3785

Hatem Halouani, Isabelle Dumazet-Bonnamour* and Roger Lamartine

Laboratoire de Chimie Industrielle, UMR CNRS 5078, Université Claude Bernard-Lyon1, 43 Bd du 11 November 1918, 69622 Villeurbanne Cedex, France



Compound	R_1	R_2
L_1	$-N_2Ph$	-H
L_2	$-N_2PhNO_2$	-H
L_3	$-N_2Ph$	$-CH_2CO_2C_2H_5$
L_4	$-N_2PhNO_2$	$-CH_2CO_2C_2H_5$
L_5	$-N_2Ph$	$-CH_2CONHCH_2CO_2C_2H_5$
L_6	$-N_2PhNO_2$	$-CH_2CONHCH_2CO_2C_2H_5$

Microwave-assisted deuterium exchange reactions for the preparation of reactive intermediates

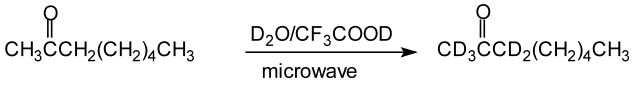
Tetrahedron Letters 43 (2002) 3789

Katalin Fodor-Csorba,[a,*] Giancarlo Galli,[b] Sándor Holly[c] and Eszter Gács-Baitz[c]

[a]*Research Institute for Solid State Physics and Optics of the Hungarian Academy of Sciences, PO Box 49, H-1525 Budapest, Hungary*

[b]*Dipartimento di Chimica e Chimica Industriale, Università di Pisa, Via Risorgimento 35, 56126 Pisa, Italy*

[c]*Chemical Research Center of the Hungarian Academy of Sciences, Institute for Chemistry, PO Box 17, H-1525 Budapest, Hungary*



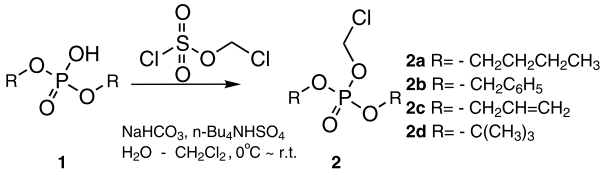
A novel synthetic route for the preparation of alkyl and benzyl chloromethyl phosphates

Tetrahedron Letters 43 (2002) 3793

Antti Mäntylä,[a,*] Jouko Vepsäläinen,[b] Tomi Järvinen[a] and Tapio Nevalainen[a]

[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*



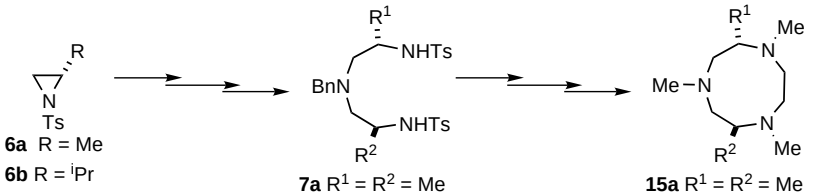
The synthesis of chiral annulet 1,4,7-triazacyclononanes

Tetrahedron Letters 43 (2002) 3795

Gilles Argouarch, Colin L. Gibson,* Graham Stones and David C. Sherrington

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

Novel and flexible routes for the synthesis of chiral ring annulet 2,6-disubstituted 1,4,7-trimethyl-1,4,7-triazamacrocycles are described. These macrocycles together with manganse(II) catalysed the asymmetric epoxidation of styrene.



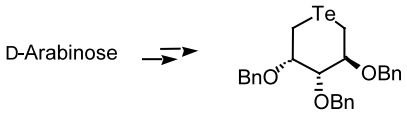
Preparation of 5-telluropentopyranose sugars from common pentose starting materials

Tetrahedron Letters 43 (2002) 3799

Oanh T. K. Nguyen and Carl H. Schiesser*

School of Chemistry, The University of Melbourne, Victoria 3010, Australia

D- and L-2,3,4-Tri-*O*-benzyl-1,5-dideoxy-5-telluroarabinose are readily prepared by treatment of D- and L-2,3,4-tri-*O*-benzyl-1,5-di-*O*-methanesulfonylarabitol with sodium telluride (Na_2Te) in ethanol.

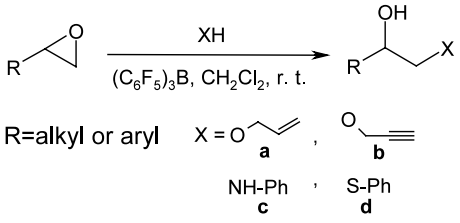


Highly efficient cleavage of epoxides catalyzed by $B(C_6F_5)_3$

Tetrahedron Letters 43 (2002) 3801

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

Indian Institute of Chemical Technology, Hyderabad 500 007, India



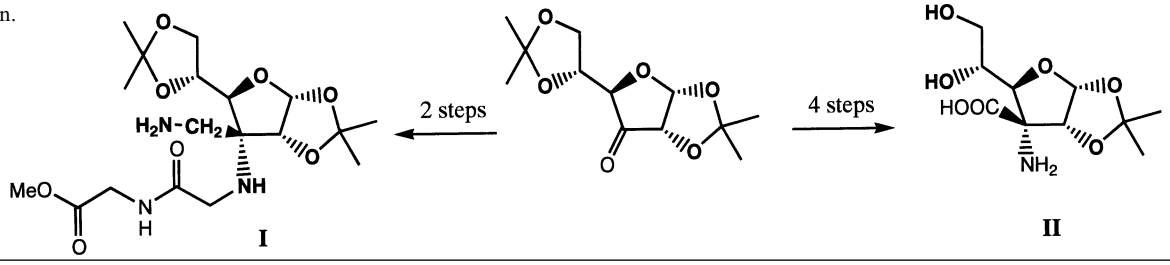
Novel conformationally restricted glycoamino acids from glyco-α-aminonitriles as potent turn mimics in peptide synthesis

Tetrahedron Letters 43 (2002) 3805

Albert Nguyen Van Nhien, Hélène Ducatel, Christophe Len and Denis Postel*

Laboratoire des Glucides Université de Picardie-Jules Verne, 33 rue Saint Leu, 80039 Amiens, France

Two strategies are described for the synthesis of glycoamino acids from glyco-α-aminonitriles which have the Cα in a non-anomeric position.



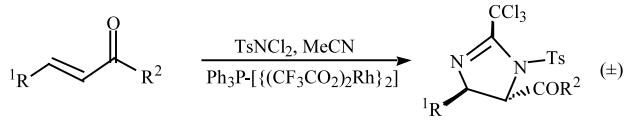
New catalytic diamination of alkenes provides a novel access to 1-*p*-toluenesulfonyl-3-trichloromethyl-4,5-imidazolines

Tetrahedron Letters 43 (2002) 3809

Han-Xun Wei, Sara Siruta and Guigen Li*

Department of Chemistry and Biochemistry, Texas Tech University, Lubbock, TX 79409-1061, USA

A new catalytic system has been established to convert α,β-unsaturated esters and ketones into 4-*p*-toluenesulfonyl-3-trichloromethyl-4,5-imidazolines regio- and stereoselectively. The reaction was achieved by using the complex of triphenylphosphine with rhodium(II) acetate as the catalyst.

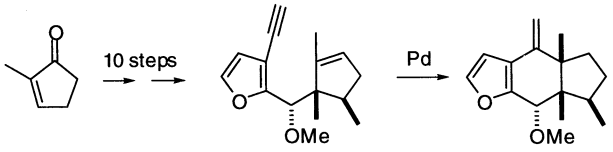


Total synthesis of 7-*O*-methyldehydropinguisenol by palladium–catalyzed 1,7-enyne cycloisomerization

Tetrahedron Letters 43 (2002) 3829

Kenichi Harada, Yasutoshi Tonoi, Hiroaki Kato and Yoshiyasu Fukuyama*

Institute of Pharmacognosy, Faculty of Pharmaceutical Sciences, Tokushima Bunri University, Tokushima 770-8514, Japan



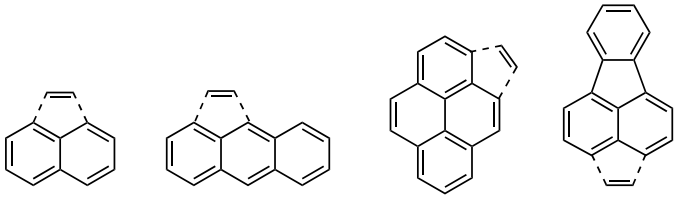
Externally-fused cyclopenta moieties in non-alternant CP-PAHs act as *peri*-substituents

Tetrahedron Letters 43 (2002) 3833

Carola Koper, Leonardus W. Jenneskens* and Martin Sarobe

Debye Institute, Department of Physical Organic Chemistry, Utrecht University, Padualaan 8, 3584 CH Utrecht, The Netherlands

The Hammett constants σ_m for the CP-moiety in **1**(1,8-CP) 0.42, **2**(1,9-CP) 0.45, **3**(1,10-CP) 0.41, **4**(3,5-CP) 0.41 are nearly identical.

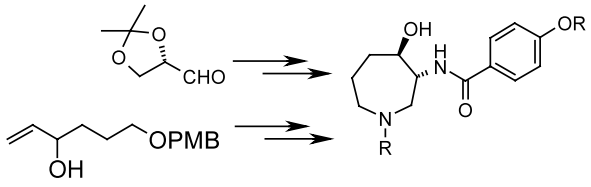


An efficient approach for the synthesis of the hexahydroazepine segment of balanol

Tetrahedron Letters 43 (2002) 3837

J. S. Yadav* and Ch. Srinivas

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



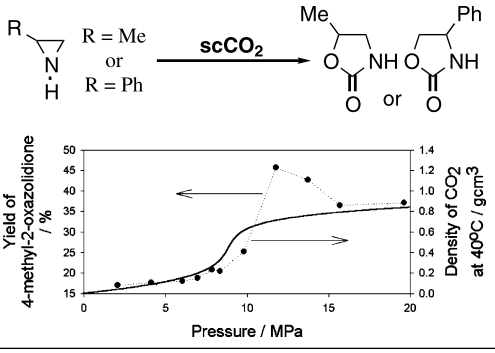
Regioselectivity and selective enhancement of carbon dioxide fixation of 2-substituted aziridines to 2-oxazolidinones under supercritical conditions

Tetrahedron Letters 43 (2002) 3841

Hajime Kawanami* and Yutaka Ikushima

Supercritical Fluid Research Center, National Institute of Advanced Industrial Science and Technology ,and CREST, Japan Science and Technology Corporation (JST), 4-2-1 Nigatake, Miyagino-ku, Sendai, Miyagi 983-8551, Japan

Under supercritical CO_2 conditions, regioselectivity in the carbon dioxide fixation of 2-methyl aziridine to 4-methyl-2-oxazolidinone was accelerated at 11.8 MPa with good yields around 75%.

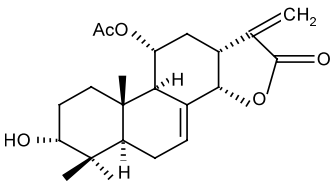


Taibaihenryiin C, a diterpenoid with a novel skeleton from *Isodon henryi*

Tetrahedron Letters 43 (2002) 3845

Bao-Lin Li,[a,*] Yuan-Jiang Pan[b] and Kai-Bei Yu[c]

[a]*School of Chemistry and Material Science, Shaanxi Normal University, Xi'an, Shaanxi 710062, China*
[b]*Department of Chemistry, Zhejiang University, Hangzhou, Zhejiang 310027, China*
[c]*Chengdu Institute of Organic Chemistry, Academia Sinica, Chengdu, Sichuan 610041, China*



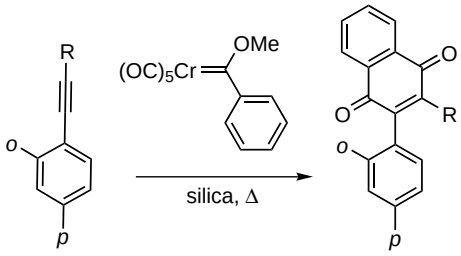
Taibaihenryiin C

Steric and electronic limitations for the Dötz benzannulation of aromatic alkynes

Tetrahedron Letters 43 (2002) 3849

James C. Anderson,[a,*] John W. Cran[a] and N. Paul King[b]

[a]*School of Chemistry, University of Nottingham, Nottingham NG7 2RD, UK*
[b]*GlaxoSmithKline Research and Development, Medicines Research Centre, Gunnels Wood Road, Stevenage, Hertfordshire SG1 2NY, UK*

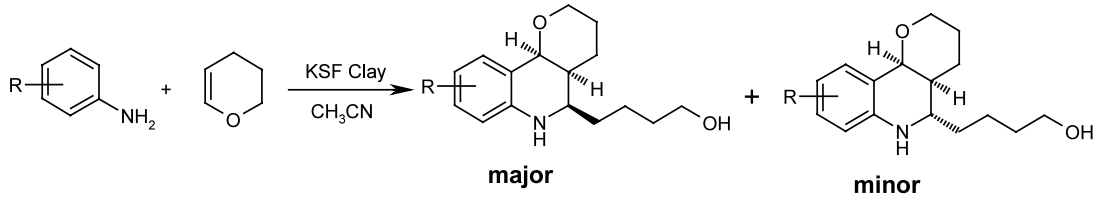


Montmorillonite clay-catalyzed [4+2] cycloaddition reactions: a facile synthesis of pyrano- and furanoquinolines

Tetrahedron Letters 43 (2002) 3853

J. S. Yadav,* B. V. S. Reddy, K. Sadasiv and P. S. R. Reddy

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

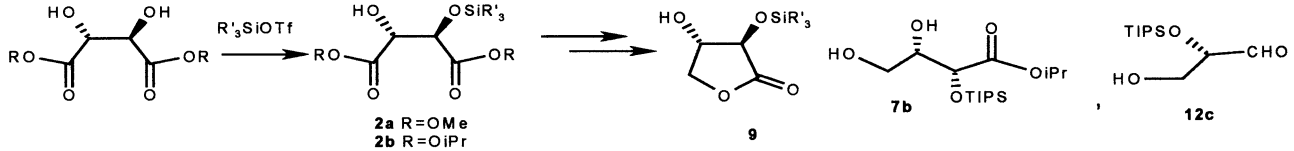


On the direct 2,3-hydroxyl-group differentiation of tartaric acid esters

Tetrahedron Letters 43 (2002) 3857

James McNulty* and Justin Mao

Institute of Molecular Catalysis, Department of Chemistry, Brock University, St. Catharines, Ontario, Canada L2S 3A1



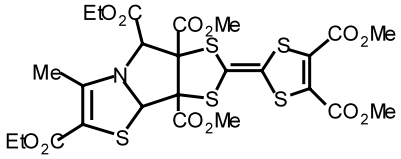
Tetrahedron Letters 43 (2002) 3879

Unexpected reaction of dimethoxycarbonyl dithiole-2-thione or tetramethoxycarbonyl TTF as dipolarophiles

Renata Toplak,[a] Patricia Bénard-Rocherullé[b] and Dominique Lorcy[a,*]

[a]*Synthèse et Electrosynthèse Organiques, UMR CNRS 6510, Université de Rennes 1, campus de Beaulieu, 35042 Rennes cedex, France*

[b]*Chimie du Solide et Inorganique Moléculaire, UMR CNRS 6511, Université de Rennes 1, 35042 Rennes cedex, France*



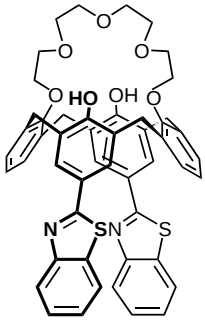
Tetrahedron Letters 43 (2002) 3883

A new fluorogenic benzothiazolyl ionophore based upon calix[4]-arene-crown-5 ether for calcium determination in aqueous media

Young Hee Kim, Na Ri Cha and Suk-Kyu Chang*

Department of Chemistry, Chung-Ang University, Seoul 156-756, South Korea

A new benzothiazolyl functionalized ionophore based upon the calix[4]arene-crown-5 ether exhibited Ca^{2+}-selective fluoroionophoric properties among the surveyed physiologically important metal ions of Na^{+}, K^{+}, and Mg^{2+} in aqueous media.

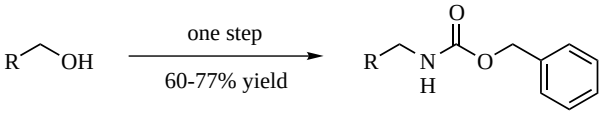


Tetrahedron Letters 43 (2002) 3887

A novel, one-step method for the conversion of primary alcohols into carbamate-protected amines

Michael R. Wood,* June Y. Kim and Kathy M. Books

Department of Medicinal Chemistry, Merck Research Laboratories, PO Box 4, West Point, PA 19486, USA



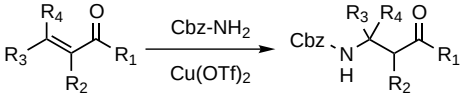
Tetrahedron Letters 43 (2002) 3891

Convenient synthesis of Cbz-protected β-amino ketones by a copper-catalysed conjugate addition reaction

Tobias C. Wabnitz and Jonathan B. Spencer*

University Chemical Laboratory, Lensfield Road, Cambridge CB2 1EW, UK

Benzyl carbamates are used as nucleophiles in a Cu(II)-catalysed conjugate addition reaction to α,β-unsaturated ketones, leading to Cbz-protected β-amino ketones. Related weakly basic nitrogen nucleophiles can also be used. The reaction takes place under very mild conditions.

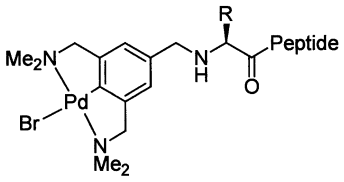


Palladium(II) pincer complexes of α-amino acids: towards the synthesis of catalytically active artificial peptides

Tetrahedron Letters 43 (2002) 3895

Gabriela Guillena, Gema Rodríguez and Gerard van Koten*

Debye Institute, Department of Metal-Mediated Synthesis, Utrecht University, Padualaan 8, 3584 CH Utrecht, The Netherlands



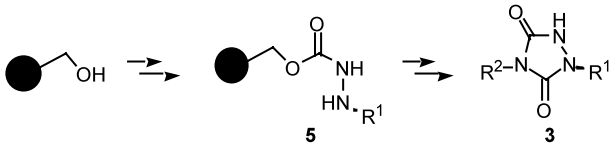
Solid-phase synthesis of 1,2,4-triazolidine-3,5-diones

Tetrahedron Letters 43 (2002) 3899

Kyung-Ho Park* and Linda J. Cox

DuPont Central Research and Development, Chemical Science and Engineering, Experimental Station, PO Box 80328, Wilmington, DE 19880-0328, USA

A traceless synthesis of 1,2,4-triazolidine-3,5-diones has been achieved through *cyclo*-elimination from solid-phase. This traceless *cyclo*-elimination release step is induced by catalytic amount of base or by simply refluxing the urea carbamate intermediate.



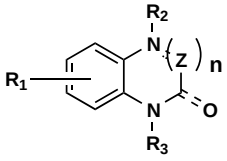
Solid-phase synthesis of 'diverse' heterocycles

Tetrahedron Letters 43 (2002) 3903

Ashok V. Purandare,* Aiming Gao and Michael A. Poss

New Leads Chemistry, Bristol-Myers Squibb PRI, PO Box 4000, Princeton, NJ 08543, USA

A novel and efficient solid-phase synthetic strategy for constructing 'diverse' heterocycles from *ortho*-fluoronitrobenzoic acid has been developed.



Z = CH_2, C=O, C-CH3
n = 0, 1

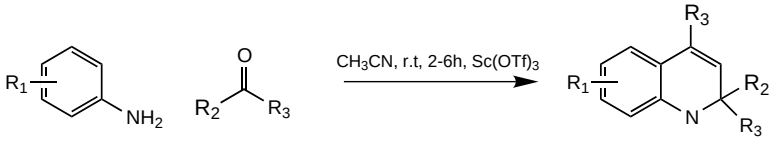
Novel facile synthesis of 2,2,4 substituted 1,2-dihydroquinolines via a modified Skraup reaction

Tetrahedron Letters 43 (2002) 3907

Maria-Elena Theoclitou* and Leslie A. Robinson

Bristol-Myers Squibb, Pharma Research Laboratories, 4570 Executive Drive, San Diego, CA 92121, USA

A variety of 2,2,4 substituted 1,2-dihydroquinolines were synthesized from substituted anilines or aminoheterocycles and the corresponding ketones in good yield via the use of lanthanide catalysts and microwave technology. This method can be readily applied to the general synthesis of combinatorial libraries of dihydroquinolines.



Microwave-assisted Niementowski reaction. Back to the roots

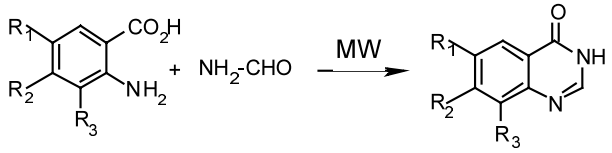
Tetrahedron Letters 43 (2002) 3911

François-René Alexandre,[a,b] Amaya Berecibar[a] and Thierry Besson[b,*]

[a]*PFIZER Global Research & Development, Fresnes Laboratories, 3–9 rue de la Loge, BP100, F-94265 Fresnes cedex, France*

[b]*Laboratoire de Génie Protéique et Cellulaire, EA3169, Groupe de Chimie Organique, UFR Sciences Fondamentales et Sciences pour l'Ingénieur, Bâtiment Marie Curie, Université de la Rochelle, F-17042 La Rochelle cedex 1, France*

Niementowski synthesis of the 3*H*-quinazolin-4-one core was reinvestigated using microwave irradiation.

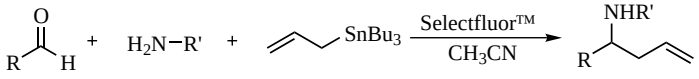


Selectfluor-mediated allylstannation of aldehydes and imines

Tetrahedron Letters 43 (2002) 3915

Junjie Liu and Chi-Huey Wong*

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



Memory of chirality effects in aldol cyclisations of 1-(3-oxobutyryl) derivatives of L-4-oxaproline and L-proline isopropyl esters

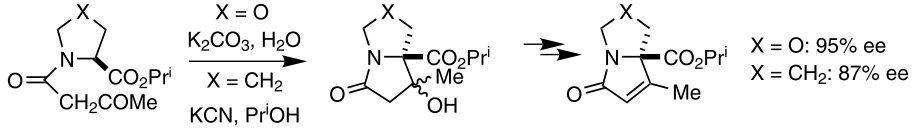
Tetrahedron Letters 43 (2002) 3919

Andrew G. Brewster,[a] Jay Jayatissa,[b] Mark B. Mitchell,[c] Anthony Schofield[b] and Richard J. Stoodley[b,*]

[a]*Astra Zeneca Pharmaceuticals, Mereside, Alderley Park, Macclesfield, Cheshire SK10 4TG, UK*

[b]*Department of Chemistry, UMIST, PO Box 88, Manchester M60 1QD, UK*

[c]*Roche Discovery Welwyn, Broadwater Road, Welwyn Garden City, Hertfordshire AL7 3AY, UK*

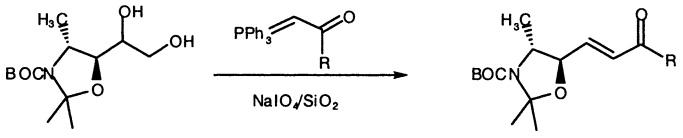


A general procedure for a one-pot oxidative cleavage/Wittig reaction of glycols

Tetrahedron Letters 43 (2002) 3923

Norma K. Dunlap,* Wosenu Mergo, James M. Jones and Jesse D. Carrick

Department of Chemistry, Middle Tennessee State University, Murfreesboro, TN 37132, USA



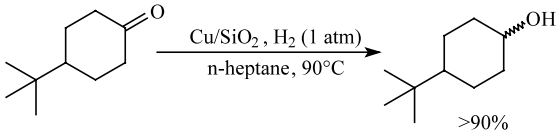
Cu/SiO_2-catalyzed hydrogenation of cyclohexanones under very mild conditions

Tetrahedron Letters 43 (2002) 3943

Nicoletta Ravasio,[a,*] Rinaldo Psaro[a] and Federica Zaccheria[b]

[a]*CNR ISTM, Via Golgi, 19, 20133 Milano, Italy*

[b]*Dipartimento di Chimica IMA, Università degli Studi di Milano, Via Venezian, 21, 20133 Milano, Italy*



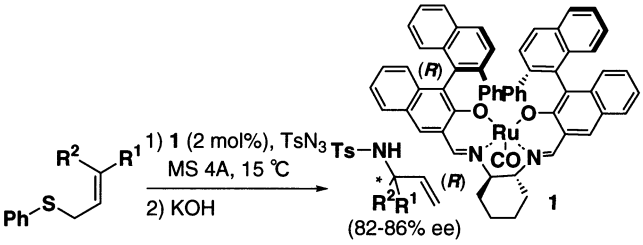
Chiral (OC)Ru(salen)-catalyzed tandem sulfimidation and [2,3]-sigmatropic rearrangement: asymmetric C–N bond formation

Tetrahedron Letters 43 (2002) 3947

Masakazu Murakami and Tsutomu Katsuki*

Department of Chemistry, Faculty of Science, Graduate School, Kyushu University 33, CREST, JST (Japan Science and Technology), Hakozaki, Higashi-ku, Fukuoka 812-8581, Japan

Asymmetric imidation of allyl aryl sulfides using (OC)Ru(II)-(salen) **1** as catalyst provides the corresponding sulfimides which undergo [2,3]sigmatropic rearrangement in situ. Hydrolysis of the rearranged products gives *N*-allyl toluenesulfonamides of high ee.

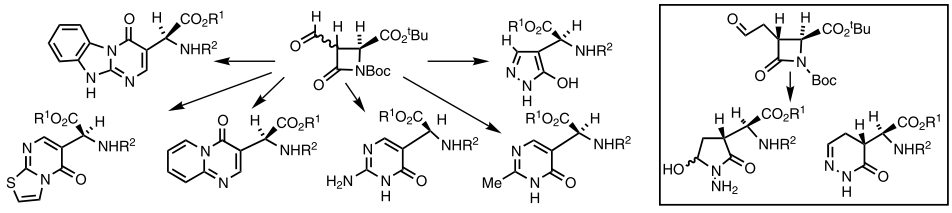


Versatile synthesis of ibotenic acid analogues with potential for activity at glutamate receptors by use of a homochiral β-lactam template in our 'ring switching' strategy

Tetrahedron Letters 43 (2002) 3951

Konstantinos Papadopoulos and Douglas W. Young*

Sussex Centre for Biomolecular Design and Drug Development, University of Sussex, Falmer, Brighton BN1 9QJ, UK



N-Trifluoromethylsulfonylimino derivatives of carbonyl-containing donor–acceptor systems

Tetrahedron Letters 43 (2002) 3957

Lev M. Yagupolskii,* Vitalij N. Petrik and Yurij L. Slominskii

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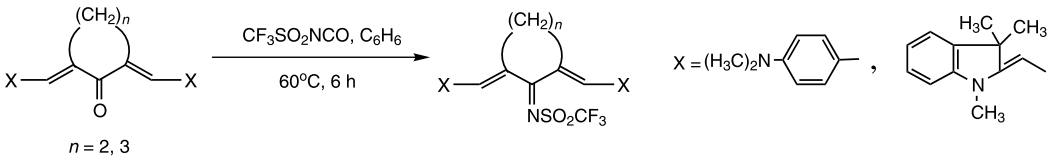
A method is proposed to deepen the color of dyes by introducing $=NSO_2CF_3$ in place of carbonyl groups in their structures.



Tetrahedron Letters 43 (2002) 3961

Intramolecular carbene and nitrene insertions at C-2 of diacetone-D-glucose

Daniel F. Berndt and Peter Norris*

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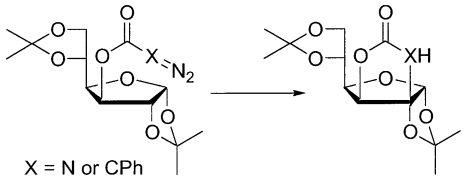

Tetrahedron Letters 43 (2002) 3963

An intramolecular Diels–Alder route to novel tetracyclic benzo[*b*]thiophene derivatives

Pilho Kim,[a] Jennifer M. Tsuruda,[a] Marilyn M. Olmstead,[a] Shawn Eisenberg[b] and Mark J. Kurth[a,*]

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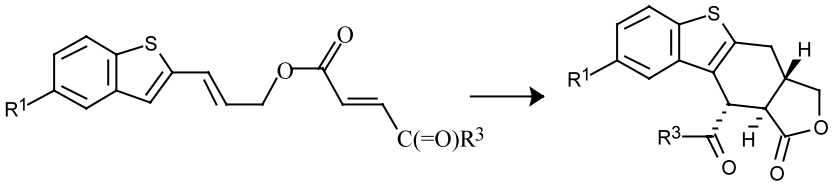

Tetrahedron Letters 43 (2002) 3967

Synthesis of new highly conjugated bis-(4*H*-pyrans) involving electron rich polyene linkage, by Pd° catalytic coupling of γ-methylenepyran Fischer-type carbene complexes

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