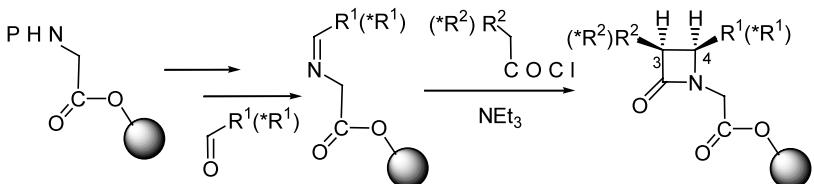


Graphical abstracts

Stereoselective solid-phase synthesis of 3,4-substituted azetidinones as key intermediates for mono- and multicyclic β -lactam antibiotics and enzyme inhibitors

Carina M. L. Delpiccolo and Ernesto G. Mata*

Instituto de Química Orgánica de Síntesis (CONICET-UNR), Facultad de Ciencias Bioquímicas y Farmacéuticas, Universidad Nacional de Rosario, Casilla de Correo 991, 2000 Rosario, Argentina



Tetrahedron: Asymmetry 13 (2002) 905

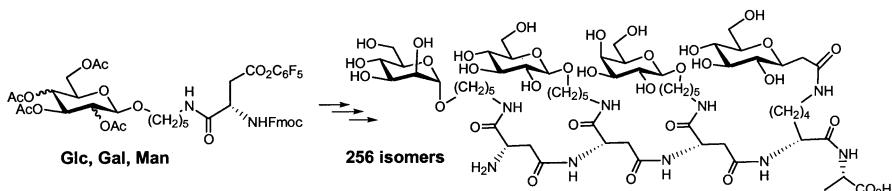
Preparation of glycosyl amino acids as building blocks for the combinatorial synthesis of neoglycoconjugates

Tetrahedron: Asymmetry 13 (2002) 911

Thomas Ziegler,* Dirk Rösling and Lakshminarayananapuram R. Subramanian

Institute of Organic Chemistry, University of Tübingen, Auf der Morgenstelle 18, D-72076 Tübingen, Germany

Several pentafluorophenyl activated glycosyl amino acids have been prepared and used for solution- and solid-phase synthesis of neoglycoconjugates. A library of 256 fully glycosylated tetrapeptides has been prepared by the split-mix methodology.

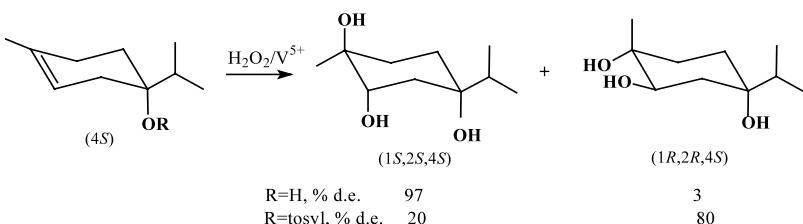


Stereoselective *trans*-dihydroxylation of terpinen-4-ol: synthesis of some stereoisomers of *p*-menthane-1,2,4-triol

Tetrahedron: Asymmetry 13 (2002) 915

Ioan Cristea,* Erika Kozma and Carmen Batiu

Department of Organic Chemistry, 'Babes-Bolyai' University, 11 Arany Janos Str. 3400 Cluj-Napoca, Romania



Incorrect procedure for the assignment of the absolute configuration of carbonucleosides by NMR: MPA must not be used with primary alcohols

Tetrahedron: Asymmetry 13 (2002) 919

José Manuel Seco, Emilio Quiñoá and Ricardo Riguera*

Departamento de Química Orgánica, Facultad de Química, Universidad de Santiago de Compostela, 15706, Santiago de Compostela, Spain

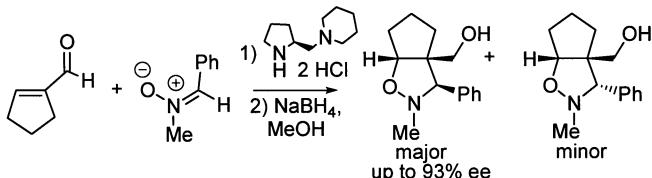


Catalytic enantioselective 1,3-dipolar cycloaddition of nitrones to cyclopent-1-enecarbinaldehyde

Tetrahedron: Asymmetry 13 (2002) 923

Staffan Karlsson* and Hans-Erik Höglberg

Chemistry, Department of Natural and Environmental Sciences, Mid Sweden University, SE-851 70 Sundsvall, Sweden

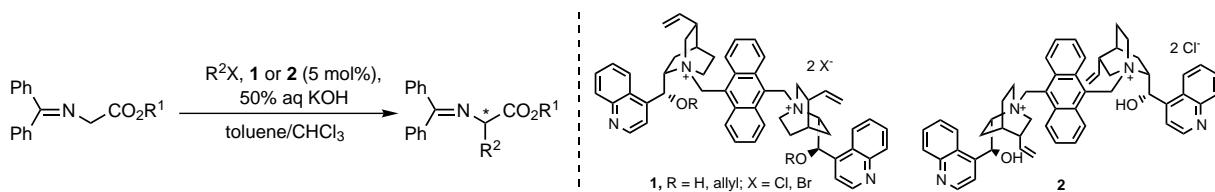


New dimeric anthracenyl-derived *Cinchona* quaternary ammonium salts as phase-transfer catalysts for the asymmetric synthesis of α -amino acids

Tetrahedron: Asymmetry 13 (2002) 927

Rafael Chinchilla, Patricia Mazón and Carmen Nájera*

Departamento de Química Orgánica, Facultad de Ciencias, Universidad de Alicante, Apartado 99, 03080 Alicante, Spain

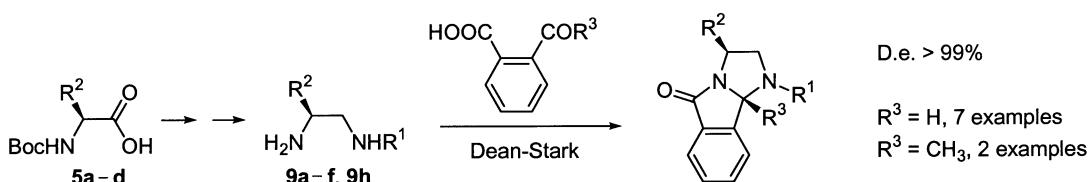


Stereoselective syntheses of chiral (3*S*,9*bS*)-1,2,3,9*b*-tetrahydro-5*H*-imidazo[2,1-*a*]isoindol-5-ones**

Tetrahedron: Asymmetry 13 (2002) 933

Alan R. Katritzky,* Hai-Ying He and Akhilesh K. Verma

Center for Heterocyclic Compounds, Department of Chemistry, University of Florida, Gainesville, FL 32611-7200, USA



The asymmetric synthesis of (3*R*)-*N*-methyl-2-oxo-[1,4'-bipiperidine]-3-acetamide in quantity

Tetrahedron: Asymmetry 13 (2002) 939

Gregory A. Reichard,^{a,*} James Spitzer,^a Ingrid Mergelsberg,^b Alan Miller,^c George Wong,^c Ramani Raghavan,^c John Jenkins,^c Tong Gan^c and Andrew T. McPhail^d

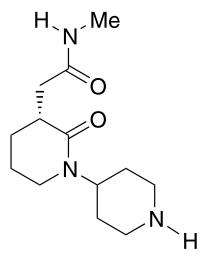
^aChemical Research, Schering-Plough Research Institute, 2015 Galloping Hill Rd., Kenilworth, NJ 07033, USA

^bWerthenstein Chemie AG, Industriestrasse, CH-6105 Schachen, Switzerland

^cChemical Process Development, Schering-Plough Research Institute, 1011 Morris Ave., Union, NJ 07083, USA

^dDepartment of Chemistry, P. M. Gross Chemical Laboratory, Duke University, Durham, NC 27708, USA

The asymmetric synthesis of the enantiomerically pure bipiperidine core fragment of a potent dual NK₁/NK₂ antagonist is described. The utilization of a diastereoselective Michael addition employing Evans' auxiliary as the key step allowed for the preparation of the fragment on a multi-kilogram scale.



***trans*-(1*S*,2*S*)-1-Substituted-2-(*N,N*-dialkylamino)-1-indanol derivatives as chiral ligands in the catalytic enantioselective addition of diethylzinc to aldehydes**

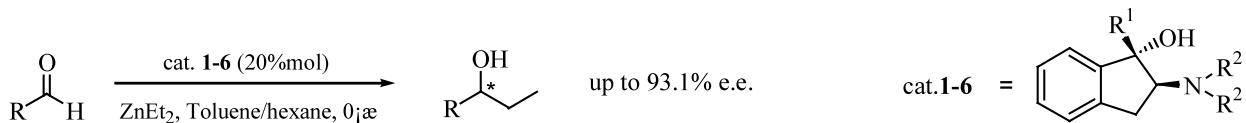
Tetrahedron: Asymmetry 13 (2002) 945

Qianyong Xu,^{a,b,*} Hongfang Yang,^b Xinfu Pan^b and Albert S. C. Chan^c

^aNorthwest Institute of Nuclear Technology, PO Box 69, Xi'an 710024, PR China

^bDepartment of Chemistry, National Laboratory of Applied Organic Chemistry, Lanzhou University, Lanzhou 730000, PR China

^cOpen Laboratory of Chirotechnology and Department of Applied Biology and Chemical Technology, The Hong Kong Polytechnic University, Hong Kong, PR China

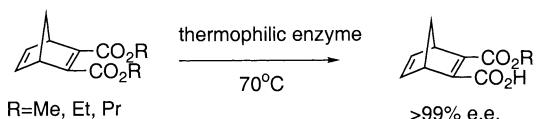


Asymmetric desymmetrization of dialkyl bicyclo[2.2.1]hept-2,5-diene-2,3-dicarboxylates by a thermophilic esterase/lipase

Tetrahedron: Asymmetry 13 (2002) 953

Yasuhiro Kashima, Jianxiu Liu, Shigeharu Takenami and Satomi Niwayama*

Department of Chemistry, Oklahoma State University, Stillwater, OK 74078-3071, USA

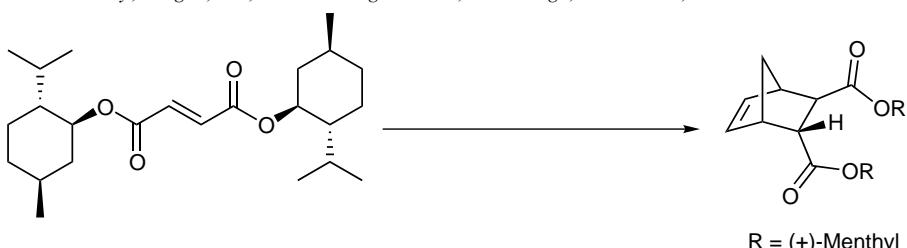


Lewis-acid catalysis of the asymmetric Diels–Alder reaction of dimethyl fumarate and cyclopentadiene

Tetrahedron: Asymmetry 13 (2002) 957

William F. Kiesman* and Russell C. Petter

Department of Medicinal Chemistry, Biogen, Inc, 14 Cambridge Center, Cambridge, MA 02142, USA



Asymmetric synthesis of (*S*)-1-aminoindan-1,5-dicarboxylic acid and related analogues via intramolecular acylation of enantiopure α,α -disubstituted amino acids

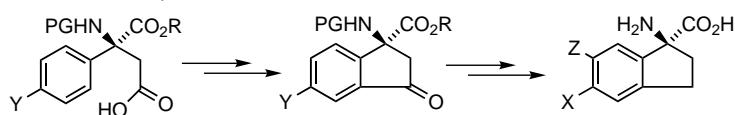
Tetrahedron: Asymmetry 13 (2002) 961

Dawei Ma,^{a,*} Ke Ding,^b Hongqi Tian,^a Baomin Wang^c and Dongliang Cheng^c

^aState Key Laboratory of Bioorganic and Natural Products Chemistry, Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences, 354 Fenglin Lu, Shanghai 200032, China

^bDepartment of Chemistry, Fudan University, Shanghai 200433, China

^cDepartment of Chemistry, Lanzhou University, Lanzhou 730000, China



Asymmetric reduction of simple aliphatic ketones with dried cells of *Geotrichum candidum*

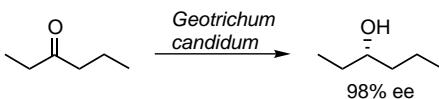
Tetrahedron: Asymmetry 13 (2002) 971

Tomoko Matsuda,^{a,*} Yuta Nakajima,^a Tadao Harada^a and Kaoru Nakamura^b

^aDepartment of Materials Chemistry, Faculty of Science and Technology, Ryukoku University, Otsu, Shiga 520-2194, Japan

^bInstitute for Chemical Research, Kyoto University, Uji, Kyoto 611-0011, Japan

Simple aliphatic ketones such as 2-pentanone, 2-butanone, 3-hexanone, etc., were reduced with excellent enantioselectivity to the corresponding (*S*)-alcohols using *Geotrichum candidum*.



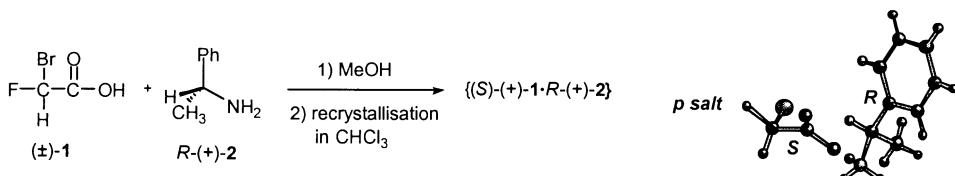
Resolution and absolute configuration of bromofluoroacetic acid

Tetrahedron: Asymmetry 13 (2002) 975

Hélène Boussac,^a Jeanne Crassous,^{a,*} Jean-Pierre Dutasta,^a Laurent Grosvalet^b and Alain Thozet^b

^aStéréochimie et Interactions Moléculaires (UMR CNRS n° 5532), École Normale Supérieure de Lyon, F-69364 Lyon cedex 07, France

^bLaboratoire de Cristallographie (UMR CNRS n° 5078), Université Claude Bernard-Lyon I, 43 bd du 11 Novembre 1918, F-69622 Villeurbanne cedex, France



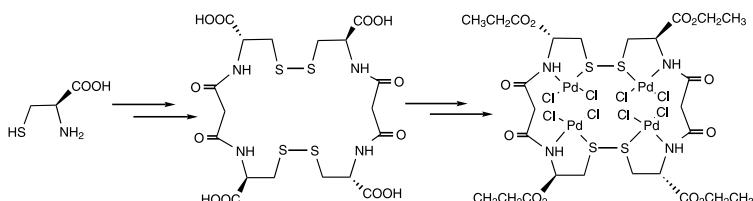
Spontaneous macrocyclization of L-cysteine with malononitrile

Tetrahedron: Asymmetry 13 (2002) 983

Laura Gibert,^a Asensio González,^{a,*} Jaume Granell^b and Concepción López^b

^aLaboratory of Organic Chemistry, Faculty of Pharmacy, University of Barcelona, 08028 Barcelona, Spain

^bLaboratory of Inorganic Chemistry, Faculty of Chemistry, University of Barcelona, 08028 Barcelona, Spain

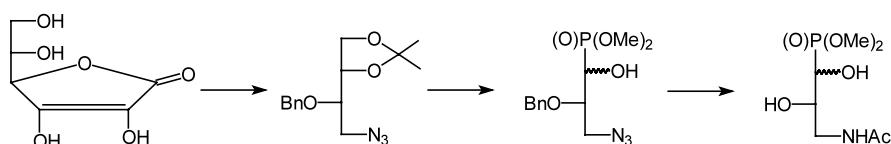


Synthesis of (1*R*,2*S*)- and (1*S*,2*S*)-3-azido-1,2-dihydroxypropylphosphonates

Tetrahedron: Asymmetry 13 (2002) 989

Andrzej E. Wróblewski* and Iwona E. Głowacka

Bioorganic Chemistry Laboratory, Faculty of Pharmacy, Medical University of Łódź, 90-151 Łódź, Muszyńskiego 1, Poland



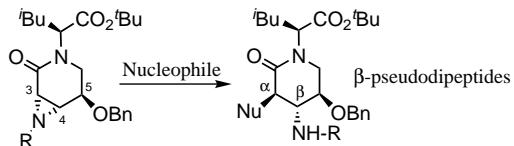
**Asymmetric synthesis of β -pseudopeptides from chiral
3,4-aziridinolactams**

Tetrahedron: Asymmetry 13 (2002) 995

Jordi Piró,^a Pilar Forns,^a Jérôme Blanchet,^b Martine Bonin,^b Laurent Micouin^b and Anna Diez^{a,*}

^aParc Científic de Barcelona, c/ Josep Samitier, 1-5, 08028 Barcelona, Spain

^bLaboratoire de Chimie Thérapeutique, Université Paris V, 4, Av. de l'Observatoire, 75270 Paris Cedex, France



Stereoselective synthesis of (-)-cytoxazone

Tetrahedron: Asymmetry 13 (2002) 1005

Miguel Carda,^{a,*} Florenci González,^a Richard Sánchez^a and
J. Alberto Marco^{b,*}

^aDepartamento de Química Inorgánica y Orgánica, Univ. Jaume I, E-12080 Castellón, Spain

^bDepartamento de Química Orgánica, Univ. de Valencia, E-46100 Burjassot, Valencia, Spain

The stereoselective synthesis of the cytokine modulator (-)-cytoxazone (-)-1 in enantiopure form is described. Key steps of the process are a *syn*-stereoselective aldol addition of a chiral ketone **6** mediated by chlorodicyclohexylborane, and a Curtius rearrangement.

