

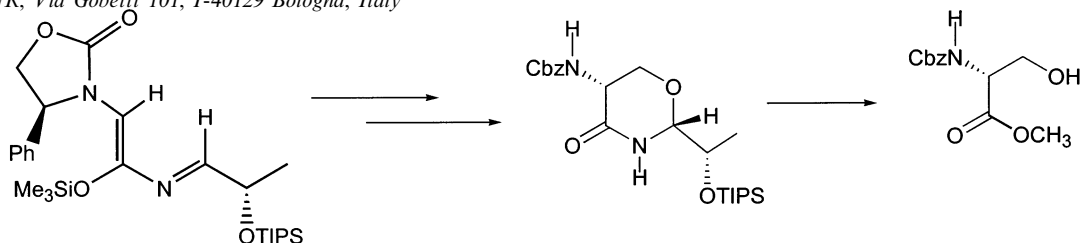
Enantioselective synthesis of protected D-serine from tetrahydrooxazin-4-one via a hetero Diels–Alder reaction

Tetrahedron: Asymmetry 13 (2002) 2113

Mauro Panunzio,^{a,*} Elisa Bandini,^b Eileen Campana^b and Paola Vicenati^b

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^bISOF-CNR, Via Gobetti 101, I-40129 Bologna, Italy

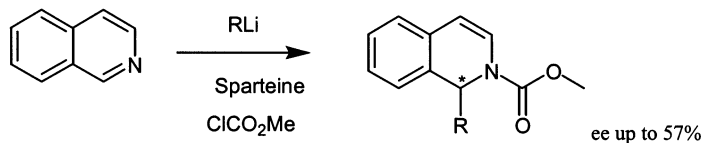


Enantioselective addition of organolithium reagents on isoquinoline

Tetrahedron: Asymmetry 13 (2002) 2117

Alexandre Alexakis* and Franck Amiot

Department of Organic Chemistry, University of Geneva, 30, quai Ernest Ensermet 1211 Genève 4, Switzerland



Enzymatic resolution of cis- and trans-1,2,3,4,6,7,8,8a-octahydro-8a-methyl-6-oxo-naphthyl acetate derivatives

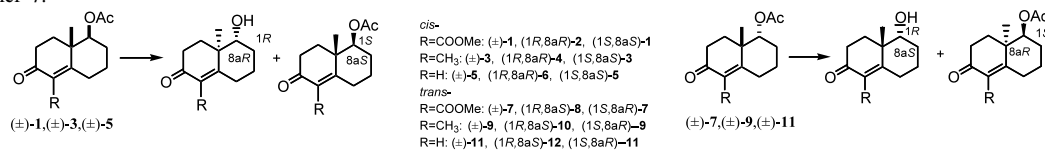
Tetrahedron: Asymmetry 13 (2002) 2123

Nobuko Shimizu,^{a,*} Hiroyuki Akita^b and Takeshi Kawamata^a

^aInstitute for Advanced Medical Research, School of Medicine, Keio University, 35 Shinanomachi, Shinjuku-ku, Tokyo 160-8582, Japan

^bFaculty of Pharmaceutical Sciences, Toho University, 2-2-1, Miyama, Funabashi, Chiba 274-8510, Japan

Extensive screenings using commercially available enzymes were performed in relation to the hydrolytic kinetic resolution of (\pm)-cis- (**1**, **3** and **5**) and (\pm)-trans-1,2,3,4,6,7,8,8a-octahydro-8a-methyl-6-oxo-naphthyl acetates (**7**, **9** and **11**). High *E* values (>200) were observed when β -amylase from *wheat* was used for hydrolysis of the (\pm)-cis-acetate **1** and lipase from *Candida cylindracea* was used for hydrolysis of the (\pm)-trans-isomer **7**.



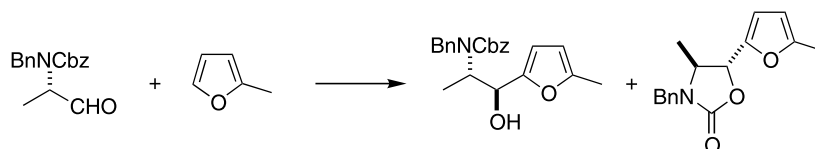
Asymmetric addition of 2-methylfuran and its lithiated derivative to variously N,N-protected L-alaninals

Tetrahedron: Asymmetry 13 (2002) 2133

Elżbieta Kobrzycka,^a Dorota Gryko^a and Janusz Jurczak^{a,b,*}

^aInstitute of Organic Chemistry, Polish Academy of Science, Kasprzaka 44/52, 01-224 Warsaw, Poland

^bDepartment of Chemistry, Warsaw University, Pasteura 1, 02-093 Warsaw, Poland



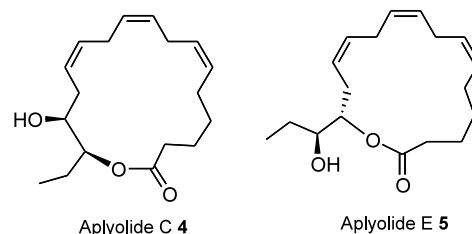
First total synthesis of natural aplyolides C and E, ichthyotoxic macrolides isolated from the skin of the marine mollusc *Aplysia depilans*

Tonino Caruso and Aldo Spinella*

Dipartimento di Chimica, Università di Salerno, Via S. Allende,
84081 Baronissi (Salerno), Italy

The ichthyotoxic marine natural products, aplyolides C **4** and E **5** were synthesized efficiently by a convergent approach.

Tetrahedron: Asymmetry 13 (2002) 2071

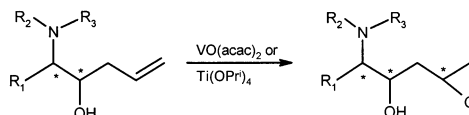


The titanium-catalysed epoxidation of homoallylic α -amino alcohols

Antoni Krasinski^a and Janusz Jurczak^{a,b,*}

^aInstitute of Organic Chemistry, Polish Academy of Sciences, 01-224 Warsaw, Poland

^bDepartment of Chemistry, University of Warsaw, 02-093 Warsaw, Poland



Tetrahedron: Asymmetry 13 (2002) 2075

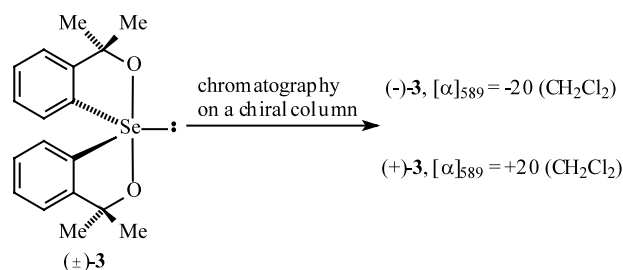
The first enantiomerically pure, C_2 -symmetric spiroseleuranone: 3,3,3',3'-tetramethyl-1,1'-spiro[3H,2,1]-benzoxaselenole

Józef Drabowicz,^{a,*} Jerzy Łuczak,^a Marian Mikołajczyk,^a
Yohsuke Yamamoto,^b Shiro Matsukawa^b and Kin-ya Akiba^c

^aCenter of Molecular and Macromolecular Studies, Polish Academy of Sciences, Department of Heteroorganic Chemistry, 90-363 Łódź, Sienkiewicza 112, Poland

^bDepartment of Chemistry, Graduate School of Science, Hiroshima University, 1-3-1 Kagamiyama, Higashi-Hiroshima 739-8526, Japan

^cAdvanced Research Center for Science and Engineering, Waseda University, 3-4-1 Ohkubo, Shinjuku-ku, Tokyo 169-8555, Japan



Tetrahedron: Asymmetry 13 (2002) 2079

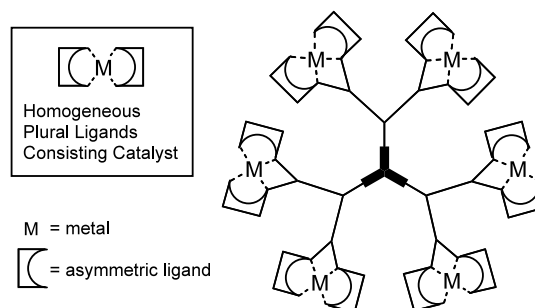
A dendrimer-supported heterobimetallic asymmetric catalyst

Takayoshi Arai,^a Tetuya Sekiguti,^a Yoshimasa Iizuka,^a
Shinobu Takizawa,^a Shigeru Sakamoto,^b Kentaro Yamaguchi^b
and Hiroaki Sasai^{a,*}

^aThe Institute of Scientific and Industrial Research (ISIR), Osaka University, Mihogaoka, Ibaraki, Osaka 567-0047, Japan

^bChemical Analysis Center, Chiba University, Yayoicho, Inage-ku, Chiba 263-8522, Japan

Tetrahedron: Asymmetry 13 (2002) 2083



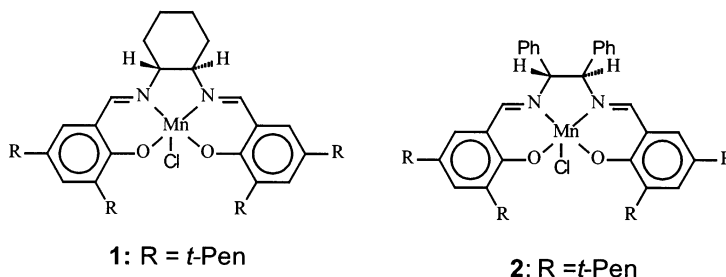
The readily available *tert*-pentyl group as a most effective simple directing group for asymmetric synthesis: a case study on Salen–Mn(III)-catalyzed epoxidation

Anne Gaquere,^a Sidney Liang,^a Fu-Lian Hsu^b and Xiu R. Bu^{a,*}

^aDepartment of Chemistry, Clark Atlanta University, Atlanta, GA 30314 USA

^bUS Army Edgewood Chemical and Biological Center, Aberdeen Proving Ground, MD 21010, USA

The *tert*-pentyl group has been found to produce a pronounced stereodirecting effect, which is manifested in a study on salen–Mn complexes bearing such groups.

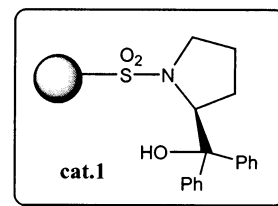
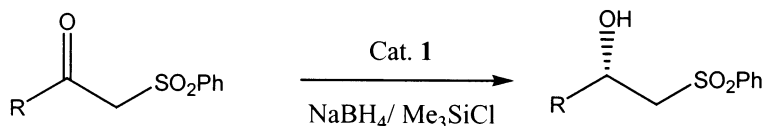


Tetrahedron: Asymmetry 13 (2002) 2089

Enantioselective reduction of β -keto sulfones using the NaBH₄/Me₃SiCl system catalyzed by polymer-supported chiral sulfonamide

Gang Zhao,* Jian-bing Hu, Zhan-shan Qian and Wei-xing Yin

State Key Laboratory of Organometallic Chemistry, Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences
354 Fenglin Lu, Shanghai 200032, China



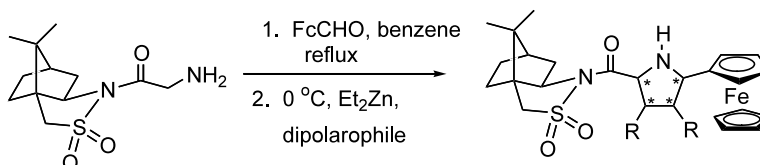
Tetrahedron: Asymmetry 13 (2002) 2095

Diethylzinc-mediated 1,3-dipolar cycloaddition reaction of chiral azomethine ylides: asymmetric synthesis of ferrocenyl-substituted pyrrolidine derivatives

Özdemir Dogan,^{a,*} İmdat Öner,^a Dinçer Ülkü^b and Cengiz Arıcı^b

^aDepartment of Chemistry, Middle East Technical University, 06531 Ankara, Turkey

^bDepartment of Physics, Hacettepe University, 06544 Ankara, Turkey



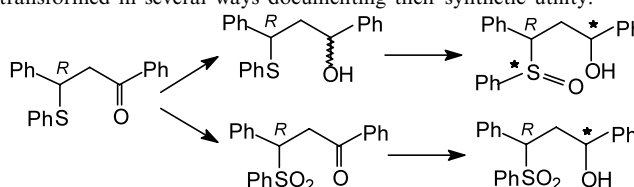
Tetrahedron: Asymmetry 13 (2002) 2099

A new and efficient route to homochiral γ -hydroxysulfoxides and γ -hydroxysulfones

Jacek Skarzewski,* Renata Siedlecka, Elżbieta Wojaczyńska and Mariola Zielińska-Błajet

Institute of Organic Chemistry, Biochemistry and Biotechnology, Wrocław University of Technology, 50-370 Wrocław, Poland

Sequential reduction and oxidation allow for the preparation of the title compounds with all possible configurations at the newly created stereogenic centers. Chemical correlation and CD spectroscopic analysis proved the configuration of the products. The obtained chiral derivatives were further transformed in several ways documenting their synthetic utility.



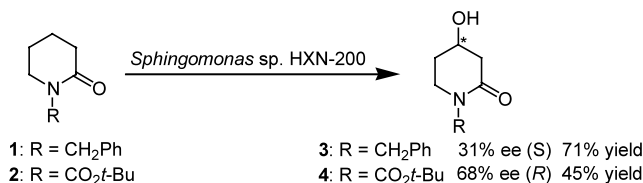
Tetrahedron: Asymmetry 13 (2002) 2105

Regio- and stereoselective hydroxylation of *N*-substituted piperidin-2-ones with *Sphingomonas* sp. HXN-200

Tetrahedron: Asymmetry 13 (2002) 2141

Dongliang Chang, Hans-Jürgen Feiten, Bernard Witholt and Zhi Li*

Institute of Biotechnology, ETH Zurich, Hoenggerberg, CH-8093 Zurich, Switzerland

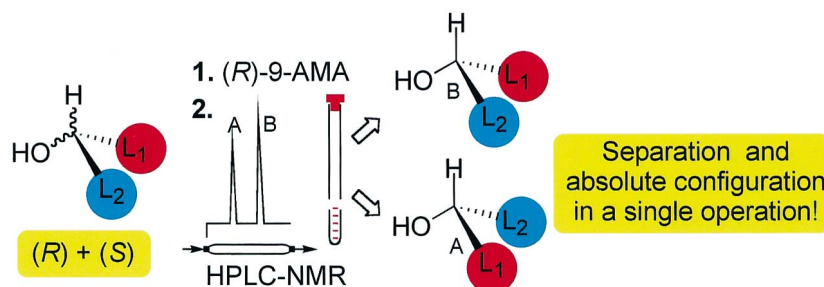


Simultaneous enantioresolution and assignment of absolute configuration of secondary alcohols by directly coupled HPLC–NMR of 9-AMA esters

Tetrahedron: Asymmetry 13 (2002) 2149

José Manuel Seco,^a Li-Hong Tseng,^b Markus Godejohann,^b Emilio Quiñoa^a and Ricardo Riguera^{a,*}

^a*Departamento de Química Orgánica, Facultad de Química and Instituto de Acuicultura, Universidad de Santiago de Compostela, E-15706 Santiago de Compostela, Spain*
^b*Bruker-Biospin GmbH, D-76287 Rheinstetten, Germany*

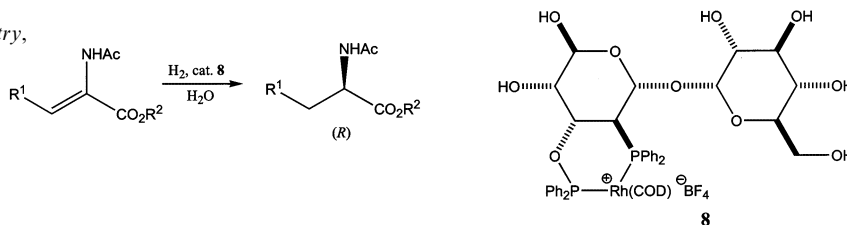


Asymmetric hydrogenation of enamides in aqueous media with a new water-soluble chiral rhodium- α,α -trehalose-derived phosphine–phosphinite catalyst

Tetrahedron: Asymmetry 13 (2002) 2155

Kouichi Ohe,* Kiyoharu Morioka, Koji Yonehara and Sakae Uemura*

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



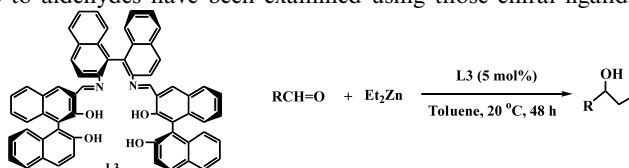
Axially dissymmetric binaphthylidene chiral Salen-type ligands for catalytic asymmetric addition of diethylzinc to aldehyde

Tetrahedron: Asymmetry 13 (2002) 2161

Min Shi* and Chun-Jiang Wang

State Key Laboratory of Organometallic Chemistry, Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences, 354 Fenglin Lu, Shanghai 200032, China

Several novel axially dissymmetric chiral salen-type ligands have been successfully synthesized and the enantioselective addition reactions of diethylzinc to aldehydes have been examined using those chiral ligands.



Syntheses and reactions of (*R*)-(C₁₀H₆)₂M₂ (M = SnMeCl₂, SnMe₂Cl, SnMe(OTf)₂, SnMe₂OTf, SiMe₂I) as novel chiral 2,2'-bis-metallic-1,1'-binaphthyl catalysts

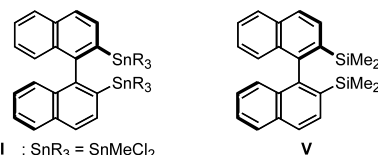
Tetrahedron: Asymmetry 13 (2002) 2167

Takashi Hoshi,^{a,*} Hiroshi Shionoiri,^b Masayoshi Katano,^b Toshio Suzuki^a and Hisahiro Hagiwara^{b,*}

^aFaculty of Engineering, Niigata University, 2-Nocho, Ikarashi, Niigata 950-2181, Japan

^bGraduate School of Science and Technology, Niigata University, 2-Nocho, Ikarashi, Niigata 950-2181, Japan

(*R*)-(C₁₀H₆(SnMeCl₂)₂) (I), (*R*)-(C₁₀H₆(SnMe₂Cl)₂) (II), (*R*)-(C₁₀H₆(SnMe(OTf)₂)₂) (III), (*R*)-(C₁₀H₆(SnMe₂OTf)₂) (IV), and (*R*)-(C₁₀H₆(SiMe₂I)₂) (V) were synthesized for application as noble chiral bis-metallic binaphthyl catalysts. The bis-chlorostannyl binaphthyls (I) and (II) were prepared via dilithiation followed by bis-stannylation with Me₃SnCl of (*R*)-(C₁₀H₆Br)₂ (VI) and subsequent redistribution reaction of the resulting (*R*)-(C₁₀H₆(SnMe₃)₂) with SnCl₄ and MeSnCl₃. The triflate derivatives (III) and (IV) were prepared via the metathetic reaction of the parent stannyl chlorides (I) and (II) with AgOTf. The bis-silyl binaphthyl (V) was prepared via dilithiation followed by cyclization with ClMe₂SiSiMe₂Cl of VI and the subsequent iodination and Si-Si cleavage of resulting (*R*)-3,4-disila-3,3,4,4-tetramethyl-3,4-dihydrodibenz[*c,g*]-phenanthrene (VII). The molecular structure and the absolute configuration of VII were determined by means of X-ray diffraction study. The catalytic activities of I-V were evaluated in the Diels-Alder reaction of methacrolein and cyclopentadiene and the asymmetric acylation reaction of racemic 1-phenyl-1,2-ethanediol.



- I : SnR₃ = SnMeCl₂
- II : SnR₃ = SnMe₂Cl
- III : SnR₃ = SnMe(OTf)₂
- IV : SnR₃ = SnMe₂OTf

On the absolute stereochemistry of (-)-4-alkylnonan-2-ones

Tetrahedron: Asymmetry 13 (2002) 2177

Victor Garcia-Ruiz and Simon Woodward*

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

