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REPORT

Enantioselective protonations: fundamental insights and new concepts

pp 3653–3691

Lucette Duhamel, Pierre Duhamel and Jean-Christophe Plaquevent*

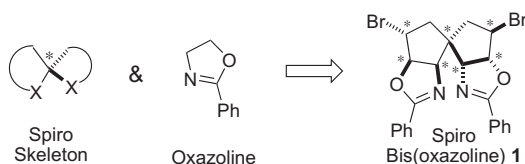
This review deals with the main results obtained in the increasing field of enantioselective protonations, a method which allows access to various enantiomerically enriched compounds. The different factors governing the stereoselectivity are discussed. Compilation of literature data is given.

COMMUNICATIONS

Development of a novel chiral spiro ligand bearing oxazoline

pp 3693–3697

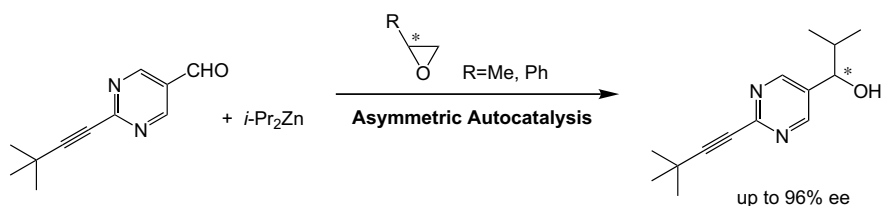
Takahiro Kato, Kazuyoshi Marubayashi, Shinobu Takizawa and Hiroaki Sasai*



Enantioselective synthesis induced by chiral epoxides in conjunction with asymmetric autocatalysis

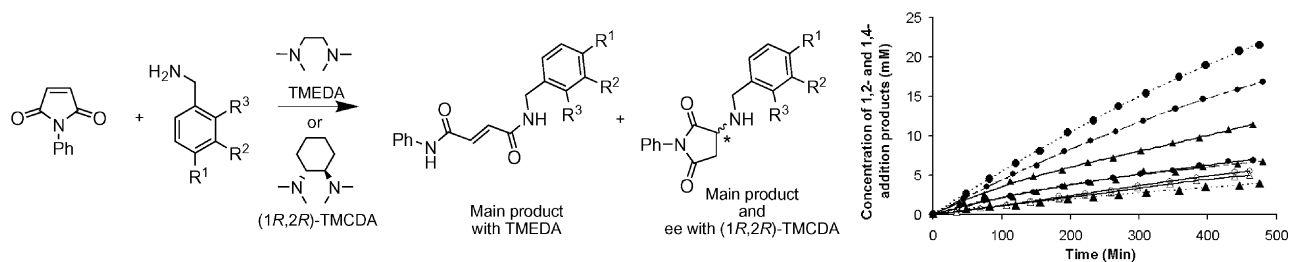
pp 3699–3701

Tsuneomi Kawasaki, Masako Shimizu, Kenta Suzuki, Itaru Sato and Kenso Soai*



Chemoselective, accelerated and stereoselective aza-Michael addition of amines to *N*-phenylmaleimide by using TMEDA based receptors pp 3703–3706

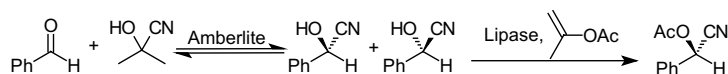
Yuefeng Bi, Laëtitia Bailly, Francis Marsais, Vincent Levacher, Cyril Papamicaël* and Georges Dupas



Enantioselective formation of mandelonitrile acetate: investigation of a dynamic kinetic resolution II

pp 3707–3709

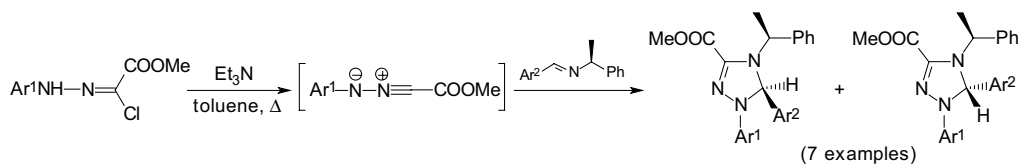
Lars Veum and Ulf Hanefeld*



Stereoselective nitrilimine cycloadditions to the C=N bond of enantiopure *N*-(1-phenylethyl)-1-arylmethanimines

pp 3711–3714

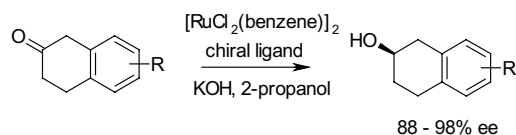
Giorgio Molteni* and Alessandro Ponti

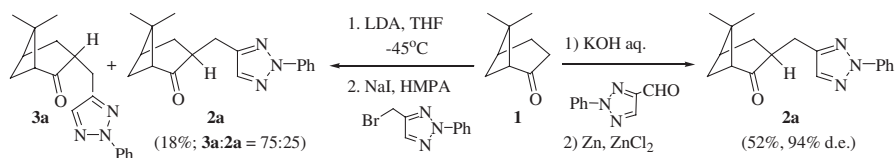


Asymmetric reduction of methoxy substituted β-tetralones using transfer hydrogenation

pp 3715–3717

Muneto Mogi, Kaoru Fuji and Manabu Node*

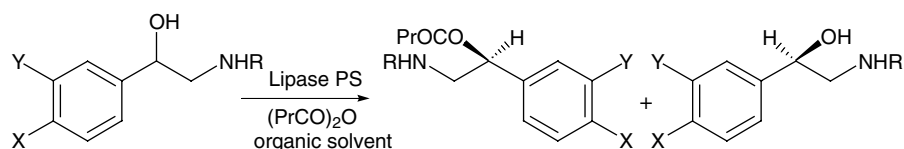




ARTICLES

Enantiomers of adrenaline-type amino alcohols by *Burkholderia cepacia* lipase-catalyzed asymmetric acylation

Katri Lundell, Erja Katainen, Anu Kiviniemi and Liisa T. Kanerva*

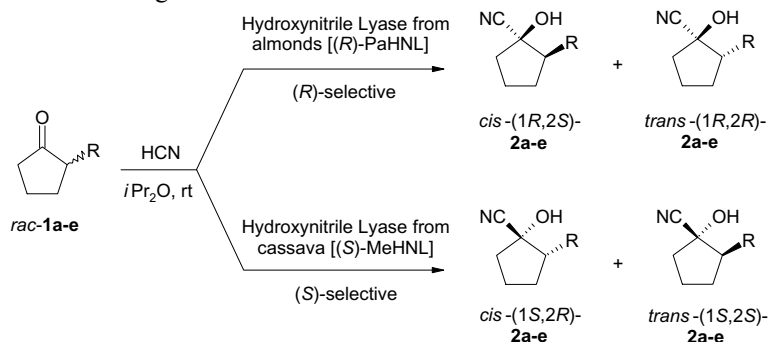


X = H or OH, Y = OH or H; R = C₆H₅, Boc or Fmoc

The enantiomers of norphenylephrine and octopamine were prepared using lipase PS-catalyzed enantioselective acylation with butanoic anhydride.

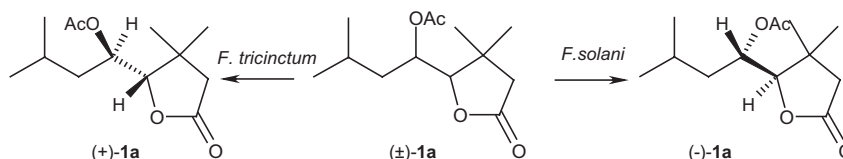
Hydroxynitrile lyase-catalyzed addition of HCN to 2-substituted cyclopentanones

Christoph Kobler and Franz Effenberger*



Enantioselective hydrolysis of δ -acetoxy- γ -lactones

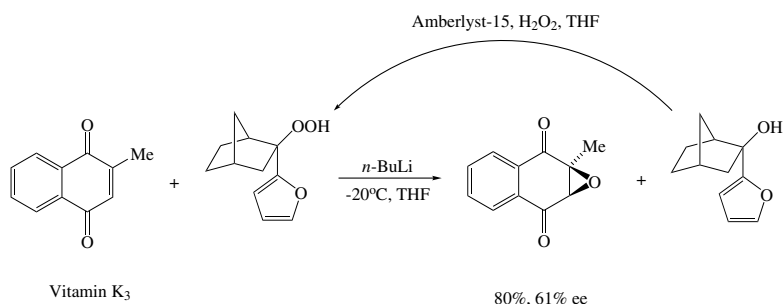
Teresa Olejniczak* and Zbigniew Ciunik



Enantioselective epoxidation of chalcones and naphthoquinones mediated by (+)-norcamphor-derived hydroperoxide

pp 3751–3755

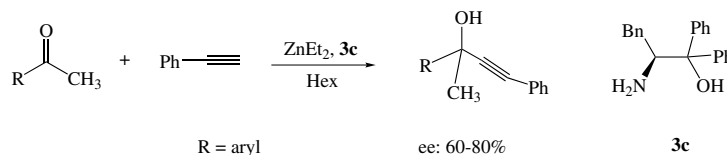
Alessandra Lattanzi,* Maria Cocilova, Patrizia Iannece and Arrigo Scettri



Enantioselective alkynylation of aromatic ketones promoted by (S)-phenylalanine-derived β-amino alcohol

pp 3757–3761

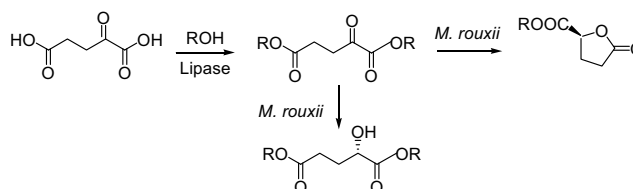
Lei Liu, Yong-feng Kang, Rui Wang,* Yi-feng Zhou, Chao Chen, Ming Ni and Mao-zhen Gong



Combination strategy using pure enzymes and whole cells as biocatalysts for the preparation of 2-hydroxyesters and lactones from 2-oxoglutaric acid

pp 3763–3768

Eduardo M. Rustoy, Elba N. Pereyra, Silvia Moreno and Alicia Baldessari*

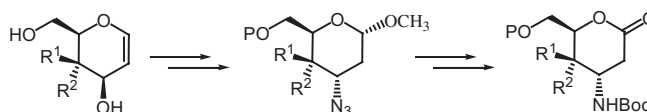


An innovative combination strategy that uses pure enzymes and whole microbial cells in the same process was used to prepare enantiomerically pure 3-carboxyalkyl-γ-butyrolactones and several alkyl esters of 2-hydroxyglutarate from 2-oxoglutaric acid.

Glycal-mediated syntheses of enantiomerically pure 3-azido-2,3-dideoxy-hexopyranosides and 3-amino-2,3-dideoxy-hexopyranolactones

pp 3769–3773

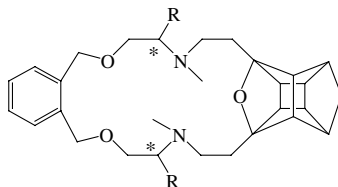
Antonella Squarcia, Simona Marroni, Giovanni Piancatelli* and Pietro Passacantilli



Synthesis of chiral pentacyclo-undecane macrocycles and their use in enantioselective Michael addition reactions

pp 3775–3781

Grant A. Boyle, Thavendran Govender, Hendrik G. Kruger* and Glenn E. M. Maguire

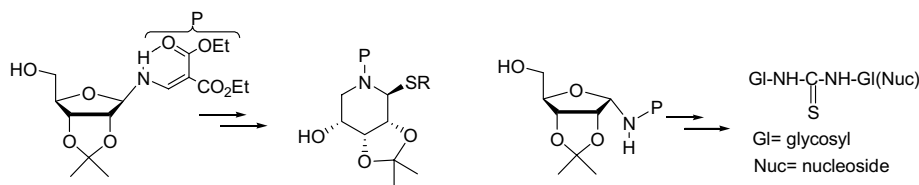


The synthesis of a new class of chiral cage annulated macrocycles with C_1 symmetry and five donor atoms is reported. The cage annulated hosts catalysed the addition of 2-nitropropane to chalcone with high enantioselectivities (up to 92% ee) but with low yields. These hosts were unsuccessful in catalysing the addition of methyl phenylacetate to methyl acrylate. The structures and energies of the macrocycle/base complex were determined using a DFT computational study.

D-Ribofuranosylenamine: a versatile starting material for preparing azasugar thioglycosides and building blocks for thioureylene-di-nucleosides

pp 3783–3789

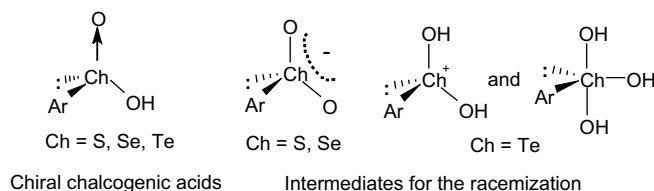
José Fuentes,* José M. Illangua, Francisco J. Sayago, Manuel Angulo, Consolación Gasch and M. Angeles Pradera



Absolute configuration and racemization mechanism of arenechalcogenic acids: resolution of tellurinic acid

pp 3791–3797

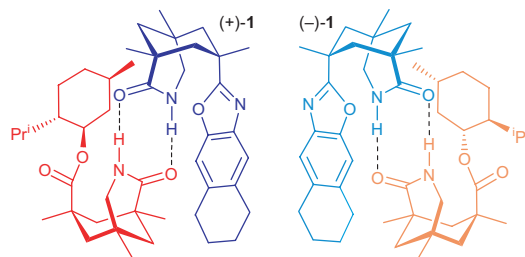
Yusuke Nakashima, Toshio Shimizu,* Kazunori Hirabayashi, Masanori Yasui, Masaki Nakazato, Fujiko Iwasaki and Nobumasa Kamigata*



Assignment of the absolute configuration of 7-substituted 3-azabicyclo[3.3.1]nonan-2-ones by NMR-titration experiments

pp 3799–3803

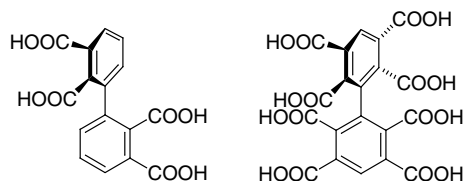
Andreas Bauer and Thorsten Bach*



Crystal structure of 1,1'-biphenyl-2,2',3,3'-tetracarboxylic and 1,1'-biphenyl-2,2',3,3',5,5',6,6'-octacarboxylic acids: solid-state chiralization and dissociation

pp 3805–3810

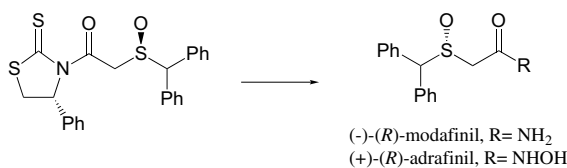
Petr Holý,* Petr Sehnal, Miloš Tichý, Jiří Závada and Ivana Císařová



Synthesis and determination of the absolute stereochemistry of the enantiomers of adrafinil and modafinil

pp 3811–3815

Antonio Osorio-Lozada, Thomas Prisinzano and Horacio F. Olivo*



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*Corresponding author



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