

Tetrahedron: *Asymmetry* Vol. 15, No. 14, 2004

Special Issue

Chiral phosphorus ligands

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Contents

Preface

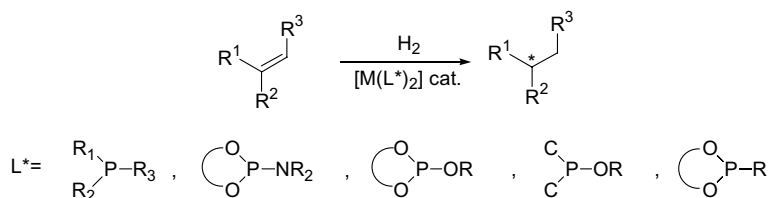
pp 2099–2100

REPORTS

Chiral monodentate phosphorus ligands for rhodium-catalyzed asymmetric hydrogenation

pp 2101–2111

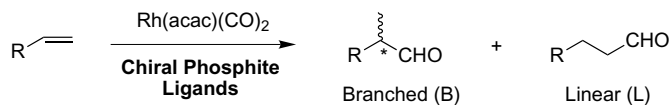
Thomas Jerphagnon, Jean-Luc Renaud and Christian Bruneau*

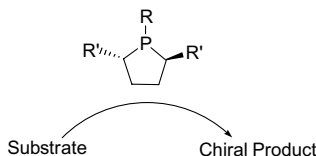


Recent advances in Rh-catalyzed asymmetric hydroformylation using phosphite ligands

pp 2113–2122

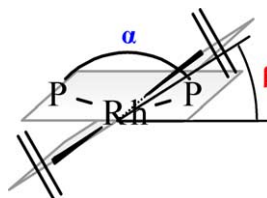
Montserrat Diéguez,* Oscar Pàmies and Carmen Claver



**Cationic Rh-bisphosphine-diolefin complexes as precatalysts for enantioselective catalysis—what information do single crystal structures contain regarding product chirality?**

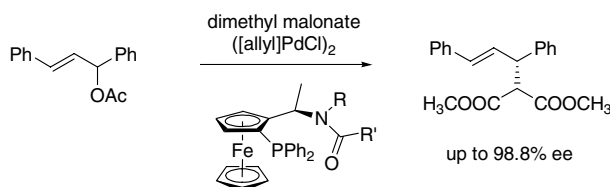
pp 2139–2150

Hans-Joachim Drexler, Songlin Zhang, Ailing Sun, Anke Spannenberg, Antonio Arrieta, Angelika Preetz and Detlef Heller*

The enantiomeric excess is not a function of the bite angle (α) or the diolefin twist (β).**COMMUNICATIONS****Ferrocenylphosphine-amide ligands for palladium-catalyzed asymmetric allylation**

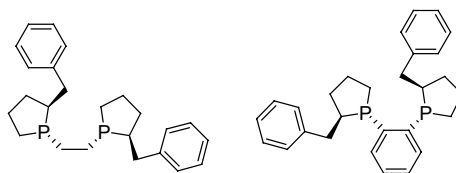
pp 2151–2154

Neil W. Boaz,* James A. Ponasik, Jr., Shannon E. Large and Sheryl D. Debenham

**Application of *P*-chirogenic bisphospholane ligands to rhodium catalyzed asymmetric hydrogenation of α - and β -acetamido dehydroamino acid derivatives**

pp 2155–2157

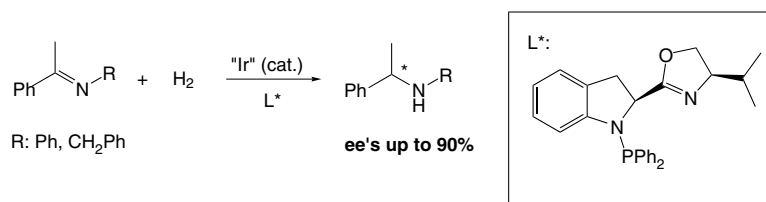
Garrett Hoge* and Brian Samas



Efficient enantioselective hydrogenation of arylimines using aminophosphine-oxazoline iridium catalysts

pp 2159–2163

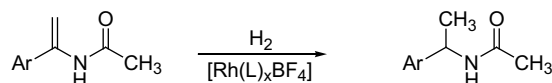
Catherine Blanc, Francine Agbossou-Niedercorn* and Guy Nowogrocki



Mixtures of chiral monodentate phosphites, phosphonites and phosphines as ligands in Rh-catalyzed hydrogenation of *N*-acyl enamines: extension of the combinatorial approach

pp 2165–2167

Manfred T. Reetz,* Gerlinde Mehler and Andreas Meiswinkel

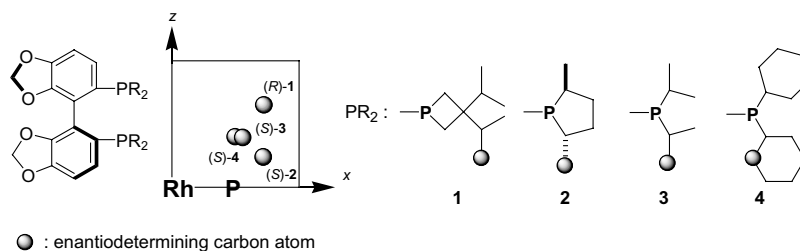


By using 1:1 mixtures of two different BINOL-derived monodentate phosphites and phosphonites, dramatically enhanced enantioselectivities (ee > 97%) relative to the use of pure ligands can be obtained.

A novel approach for investigating enantioselectivity in asymmetric hydrogenation

pp 2169–2172

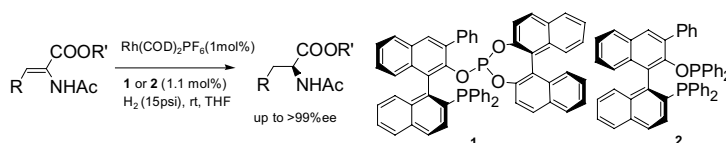
Hideo Shimizu, Takero Ishizaki, Takahiro Fujiwara and Takao Saito*



Novel phosphine-phosphite and phosphine-phosphinite ligands for highly enantioselective asymmetric hydrogenation

pp 2173–2175

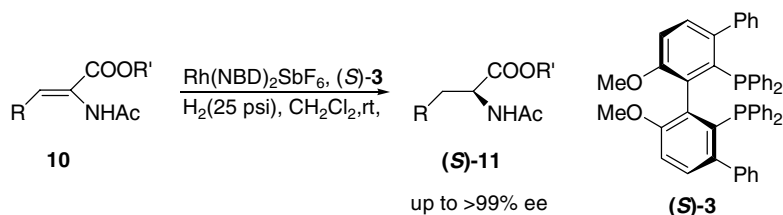
Yongjun Yan, Yongxiang Chi and Xumu Zhang*



Synthesis of *ortho*-phenyl substituted MeO-BIPHEP ligand and its application in Rh-catalyzed asymmetric hydrogenation

pp 2177–2180

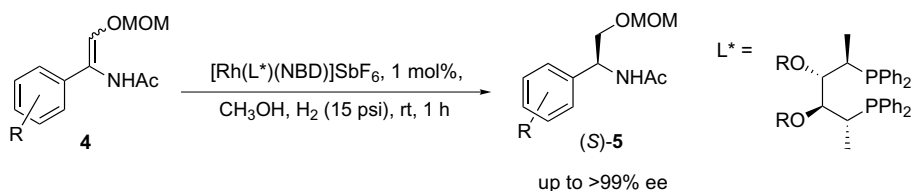
Shulin Wu, Minsheng He and Xumu Zhang*



Development of DIOP derivatives as efficient ligands for asymmetric hydrogenation: factors controlling the reactivities and enantioselectivities

pp 2181–2184

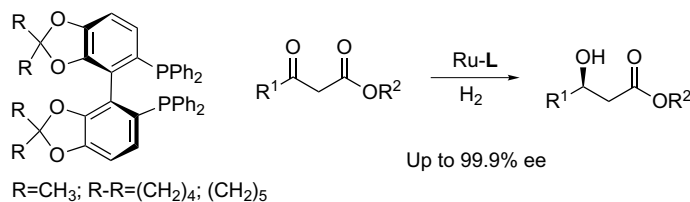
Duan Liu, Wenge Li and Xumu Zhang*



Chiral biphosphine ligands for the Ru-catalyzed enantioselective hydrogenation of β -ketoesters

pp 2185–2188

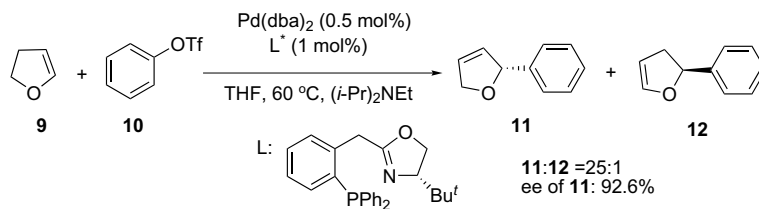
Yanhui Sun, Xiaobing Wan, Minjie Guo, Donghui Wang, Xicheng Dong, Yi Pan and Zhaoguo Zhang*



Synthesis of new chiral benzylically substituted *P,N*-ligands and their applications in the asymmetric Heck reaction

pp 2189–2191

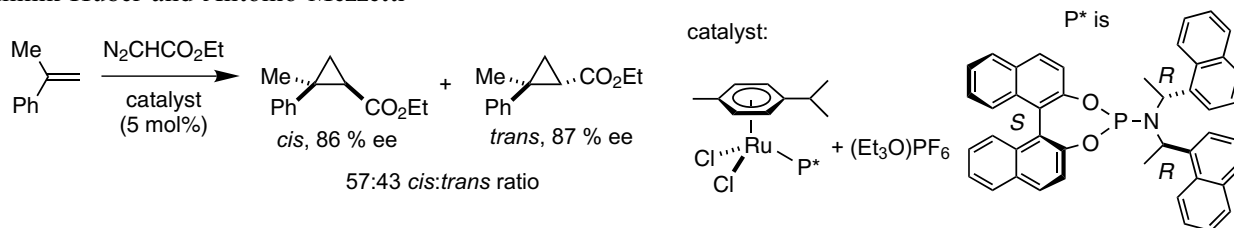
Xue-Long Hou,* Da Xuan Dong and Ke Yuan



Chiral monodentate phosphoramidite ligands control the absolute configuration at pseudotetrahedral ruthenium: asymmetric catalytic cyclopropanation of olefins

pp 2193–2197

Dominik Huber and Antonio Mezzetti*



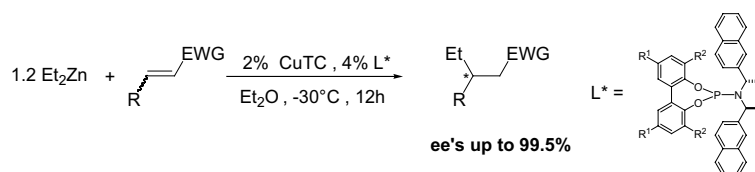
Half-sandwich ruthenium complexes of the type $[\text{RuCl}_2(p\text{-cymene})(\text{P}^*)]$ (P^* = chiral monodentate P-containing ligand) catalyse the asymmetric cyclopropanation of styrene and α -Me-styrene by $\text{N}_2\text{CHCO}_2\text{Et}$ with enantioselectivities up to 87% ee.

ARTICLES

Biphenol-based ligands for Cu-catalyzed asymmetric conjugate addition

pp 2199–2203

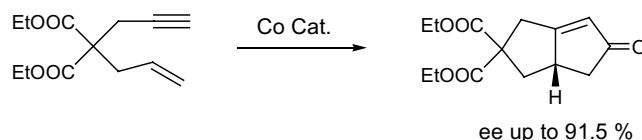
Alexandre Alexakis,* Damien Polet, Cyril Benhaim and Stéphane Rosset



Asymmetric cyclocarbonylation of 1,6-enynes with cobalt catalysts

pp 2205–2208

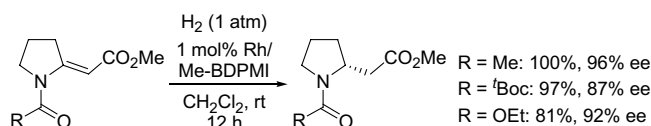
Thomas M. Schmid and Giambattista Consiglio*



Asymmetric synthesis of homoproline derivatives via Rh(I)-catalyzed hydrogenation using chiral bisphosphines as ligands

pp 2209–2212

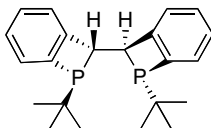
Yong Jian Zhang, Jung Hwan Park and Sang-gi Lee*



Optically active 1,1'-di-*tert*-butyl-2,2'-dibenzophosphenyl: a highly strained P-stereogenic diphosphine ligand

pp 2213–2218

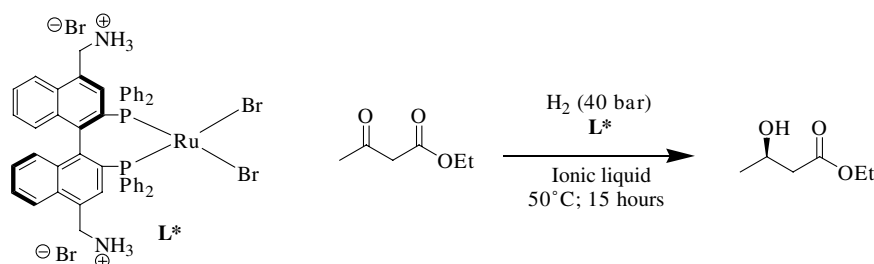
Tsuneo Imamoto,* Karen V. L. Crépy and Kosuke Katagiri



Enantioselective catalytic asymmetric hydrogenation of ethyl acetoacetate in room temperature ionic liquids

pp 2219–2221

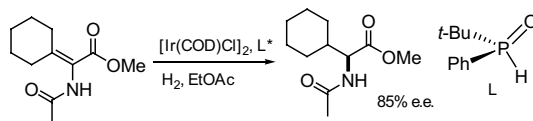
Mikaël Berthod, Jean-Michel Joerger, Gérard Mignani, Michel Vaultier and Marc Lemaire*



The application of monodentate secondary phosphine oxide ligands in rhodium- and iridium-catalyzed asymmetric hydrogenation

pp 2223–2229

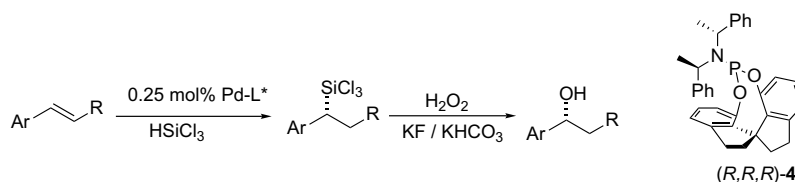
Xiao-bin Jiang, M. van den Berg, Adriaan J. Minnaard,* Ben L. Feringa* and Johannes G. de Vries*



Asymmetric palladium-catalyzed hydrosilylation of styrenes using efficient chiral spiro phosphoramidite ligands

pp 2231–2234

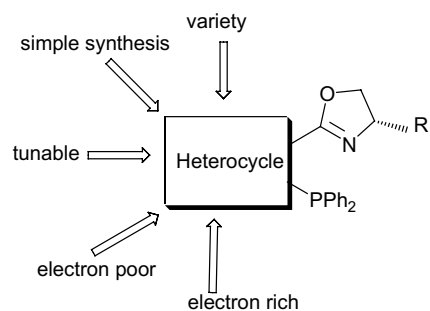
Xun-Xiang Guo, Jian-Hua Xie, Guo-Hua Hou, Wen-Jian Shi, Li-Xin Wang and Qi-Lin Zhou*



HetPHOX: a new class of easily prepared modular chiral ligands

pp 2235–2239

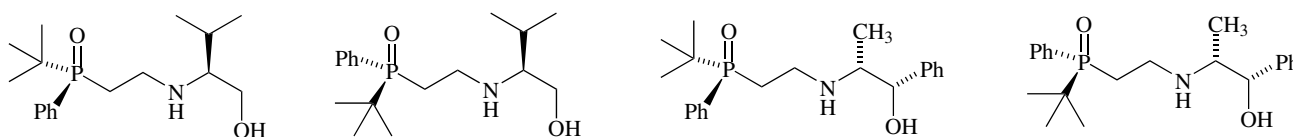
Nicole End, Catherine Stoessel, Ulrich Berens, Pierino di Pietro and Pier Giorgio Cozzi*



Aminohydroxy phosphine oxide ligands in ruthenium-catalysed asymmetric transfer hydrogenation reactions

pp 2241–2246

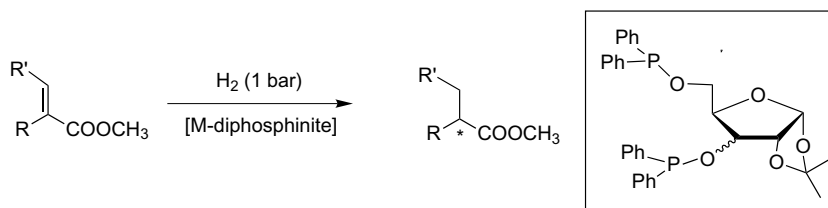
Xiaohui Cheng, Peter N. Horton, Michael B. Hursthouse and King Kuok (Mimi) Hii*



Furanoside diphosphinites as suitable ligands for the asymmetric catalytic hydrogenation of prochiral olefins

pp 2247–2251

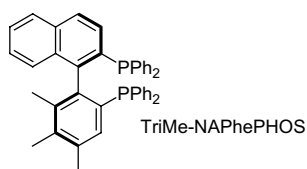
Eugeni Guimet, Montserrat Diéguez,* Aurora Ruiz* and Carmen Claver



New developments in the synthesis of heterotopic atropisomeric diphosphines via diastereoselective aryl coupling reactions

pp 2253–2261

Jonathan Madec, Guillaume Michaud, Jean-Pierre Genêt* and Angela Marinetti*



pp 2263–2271

$$R^1-C(=O)-R^2 + Ar_2SiH_2 \xrightarrow[EtTRAP-H]{1\text{ mol \% cat. } [Rh(cod)_2]BF_4} R^1-CH(OH)-R^2 \xrightarrow[MeOH]{K_2CO_3}$$

76–94% ee
 (S,S)-EtTRAP-H

pp 2273–2278

pp 2279–2288

$R_1, R_2 = \text{Ph, Cy}$

pp 2289–2297

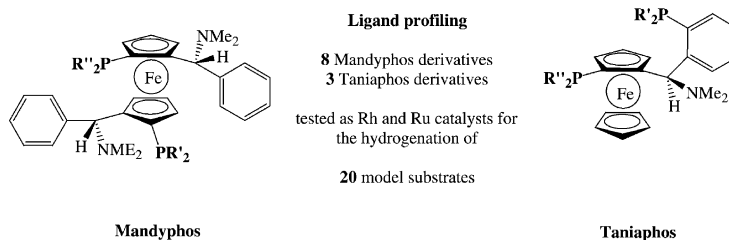
$\text{R} = \text{Me}, n\text{-Bu}, n\text{-Oct}, \text{Ph}-(\text{CH}_2)_2, \text{Ph}-(\text{CH}_2)_3$

$\text{ee}\% = 98\text{-}99.9$

Modular chiral ligands: the profiling of the Mandyphos and Taniaphos ligand families

pp 2299–2306

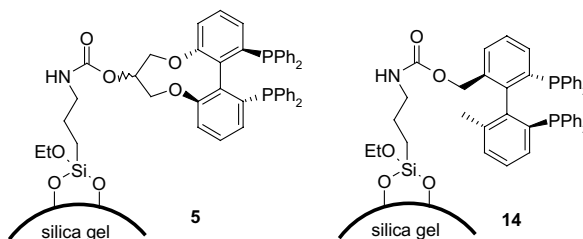
Felix Spindler,* Christophe Malan, Matthias Lotz, Martin Kesselgruber,
Ulrich Pittelkow, Andreas Rivas-Nass, Oliver Briel and Hans-Ulrich Blaser



Novel silica gel supported chiral biaryl-diphosphine ligands for enantioselective hydrogenation

pp 2307–2311

Ivo Steiner, Rhony Aufdenblatten, Antonio Togni,* Hans-Ulrich Blaser and Benoît Pugin*



OTHER CONTENTS

Stereochemistry abstracts
Tetrahedron: *Asymmetry* reports
Instructions to contributors
Cumulative author index

pp A397–A414
pp I–II
pp III–VI
pp VII–XII

*Corresponding author



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