

TOP

List of Issue

Advance Publication

Submission

About Chem.Lett.

[Home](#) > [Chemistry Letters](#) > [List of Issues](#) > [Volume 42, Issue 1](#) > [Synthesis of Chiral Bis-MOP-...](#)

Article - 2013, Vol.42, No.1

37-39

Synthesis of Chiral Bis-MOP-type Diphosphines. Chelating Effect in Nickel-catalyzed Phosphination

Artur R. Abreu^{1,2}, Andreia F. Peixoto¹, Ana R. Almeida¹, Mirtha A. O. Lourenço¹,
Ângela C. B. Neves¹, J. Carles Bayón², Mariette M. Pereira¹

<https://doi.org/10.1246/cl.2013.37>

[+ Affiliations](#)

[+ Additional Info](#)

PDF (408K)

Tools ∨



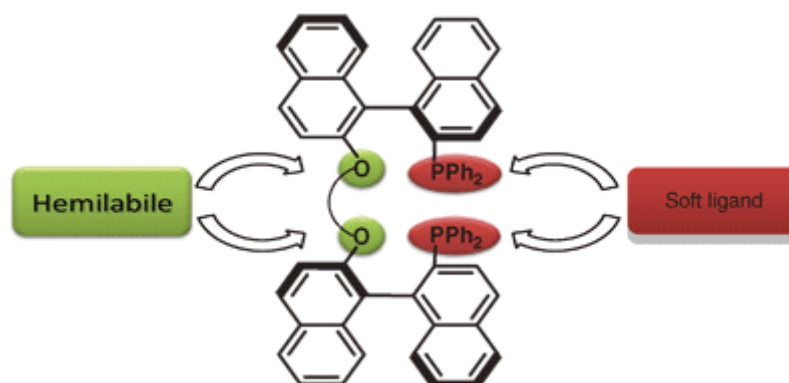
[Abstract](#)

[Look Inside](#)

[References](#)

[Supplementary](#)

[Cited by](#)



Chiral bis-MOP-type diphosphines with alkyl and pyridyl bridges connecting the two binaphthyl units have been synthesized via $[\text{NiCl}_2(\text{dppe})]$ -assisted phosphination of the corresponding aryl triflates. The effect of the amount of the nickel complex on the reaction yield was investigated. Catalytic and even stoichiometric amounts of the complex proved to be insufficient to promote an efficient phosphination, but the use of an excess of the metal complex provides good yields.

[<< Previous](#)[Next >>](#)[Oriented Pyrazine Dye Films on Aligned Poly\(tetrafluoroethylene\) Layers](#)[β-Amination of Saturated Nitriles through Palladium-catalyzed Dehydrogenation, 1,4-Addition, and Re-dehydrogenation](#)

Get MORE Recommended!!

- cl 1990 - Vol.19 , No.4, pp. 601 - 604

Chelate Size Dependence of Dihydrogen-Hydride Exchange in Ruthenium(II) Molecular Hydrogen Complexes with Diphosphines [RuH(η^2 -H₂)(P-P)₂]PF₆ (P-P = Ph₂P(CH₂)_nPPh₂; n = 2,3,4)

Masahiko Saburi, Ko Aoyagi, Tamotsu Takahashi, Yasuzo Uchida

The introduction of H₂ gas into CD₂Cl₂ solutions of the five-coordinate complexes [RuH(P-P)₂]PF₆ (**1**) resulted in the spontaneous generation of molecular hydrogen complexes [RuH(η^2 -H₂)(P-P)₂]PF₆ (**2**) (P-P = 1,3-bis(diphenylphosphino)propane, 1,4-bis(diphenylphosphino)butane). ¹H-NMR measurements revealed that the dihydrogen-hydride exchange for a series of complexes **2** depends significantly on the size of diphosphine chelate.

[[Full Text PDF](#)]

- bcsj 1984 - Vol.57 , No.12, pp. 3595 - 3596

[Open Access](#)

The Phosphorus-31 Nuclear Magnetic Resonance Spectra of Bis(acetylacetonato)cobalt(III) Complexes Containing Bidentate Diphosphines

Yoshio Koike, Toshio Takayama, Masatoshi Watabe

The phosphorus-31 nuclear magnetic resonance spectra of [Co(acac)₂(P-P)]⁺(P-P = diphosphine ligand) of the Werner type were measured, and the coordination chemical shifts were compared with those of complexes studied before. The coordination chemical shifts of the five-membered chelate ring were twice as much as those of the six-membered ring.

[[Full Text PDF](#)]

- cl 1989 - Vol.18 , No.2, pp. 263 - 266

Novel Synthetic Method of Phenol from Benzene Catalysed by Perfluorinated Hemin

Shinji Tsuchiya, Manabu Seno

New perfluorinated hemin carries out hydroxylation of benzene by hydrogen peroxide at room temperature and an atmospheric pressure. The turnover for phenol produced for 2 hours is 55. This hemin also catalyses the epoxidation of cyclooctene by hydrogen peroxide.

[\[Full Text PDF \]](#)

- cl 1996 - Vol.25 , No.11, pp. 1007 - 1008

New Chiral Diphosphines, 2,3-Bis(siloxy)-1,4-bis(diphenylphosphino)butanes, and Their Cationic Rh(I) Complexes: Synthesis and Structures

Kohei Tamao, Kazunori Nakamura, Shigehiro Yamaguchi, Motoo Shiro, Seiki Saito

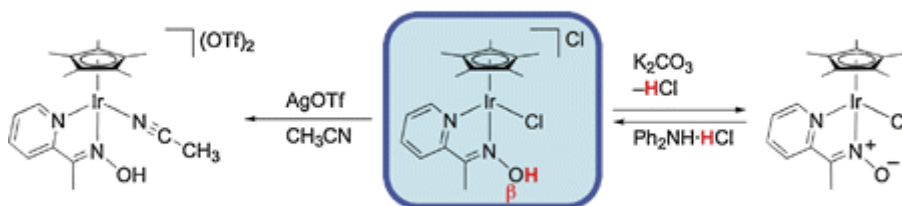
A series of 2,3-bis(siloxy)-1,4-bis(diphenylphosphino)butanes SILOPs, possessing various siloxy groups, and their Rh(I) complexes have been prepared. The X-ray structure of a SILOP shows a staggered conformation with two siloxy groups in the anti positions. The X-ray crystal structure of a cationic Rh(I)-SILOP complex, however, shows an *anti* arrangement of not the two siloxy groups but the two silyl groups with respect to the O–O axis, which reinforces the C_2 -symmetrical environment around the metal center.

[\[Full Text PDF \]](#)

- cl 2010 - Vol.39 , No.7, pp. 758 - 759

Synthesis, Structure, and Reversible Deprotonation of a Half-sandwich Iridium Complex Bearing a Chelating Oxime Ligand

Megumi Watanabe, Yohei Kashiwame, Shigeki Kuwata, Takao Ikariya



A reaction of $[\{Cp^*IrCl(\mu-Cl)\}_2]$ ($Cp^* = \eta^5-C_5(CH_3)_5$) with 1-(pyridin-2-yl)ethanone oxime (PyNOH) afforded the cationic oxime complex $[Cp^*IrCl(PyNOH)]Cl$ (**3**) with an acidic OH group at the β -position to the metal center. Complex **3** underwent reversible deprotonation to give the corresponding oximato complex $[Cp^*IrCl(PyNO)]$ (**4**), while treatment of **3** with silver triflate in acetonitrile led to the formation of the dicationic complex $[Cp^*Ir(PyNOH)(CH_3CN)](OTf)_2$ (**5**, $OTf = OSO_2CF_3$). The detailed structures of **3–5** have been determined by X-ray crystallography.

[\[Full Text PDF \]](#)

collapse

Select Issues

Search for Articles

Any ▼

Enter search term

Published in

e.g. Chemistry Letters

Publication Date

 All dates Last: Select ▼ Custom range:

Year ▼

To:

Year ▼

Search

Saved Search

Please [login](#) to view your saved searches.

Top Accessed Articles

1. [Machine Learning Approach for Prediction of Reaction Yield with Simulated Catalyst Parameters](#)
2. [Isosbestic Points Do Not Always Work as the Measure to Determine the Oneness of a Reaction as Exemplified by the Photoisomerization of Azobenzene Tethered to Polymer Chains](#)
3. [Molecular Engineering of Excited-state Intramolecular Proton Transfer \(ESIPT\) Dual and Triple Emitters](#)
4. [Synthesis of a Heptaarylisoquinoline: Unusual Disconnection for Constructing Isoquinoline Frameworks](#)
5. [Layer-by-layer Nanoarchitectonics: Invention, Innovation, and Evolution](#)

Most Cited

1. [Layer-by-layer Nanoarchitectonics: Invention, Innovation, and Evolution](#)
2. [Overview of the Mechanistic Work on the Concerted Metallation–Deprotonation Pathway](#)
3. [Layered Lithium Insertion Material of \$\text{LiCo}_{1/3}\text{Ni}_{1/3}\text{Mn}_{1/3}\text{O}_2\$ for Lithium-Ion Batteries](#)

4. [Nickel Catalysts/*N,N'*-Bidentate Directing Groups: An Excellent Partnership in Directed C–H Activation Reactions](#)

5. [Task-Specific Ionic Liquids](#)

MANAGE YOUR ALERTS

RECOMMEND TO LIBRARY

CSJ Journals

- [Chemistry Letters](#)
- [Bulletin of the Chemical Society of Japan](#)
- [The Chemical Record](#)
- [Chemistry - An Asian Journal](#)
- [Asian Journal of Organic Chemistry](#)
- [ChemNanoMat](#)

[Privacy Policy](#)

[Terms & Conditions](#)

[Site Map](#)

[Contact](#)

Copyright © 2017 The Chemical Society of Japan. All Rights Reserved.

Powered by [Atypon® Literatum](#)