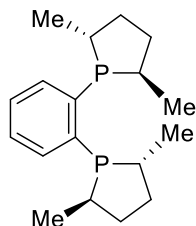
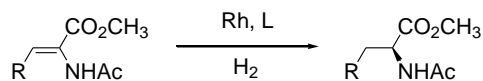


Catalog # 15-0096 (-)-1,2-Bis((2R,5R)-2,5-dimethylphospholano)benzene, min.98% (R,R)-Me-DUPHOS

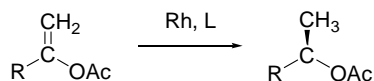


Technical Notes:

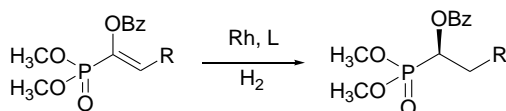
1. The DUPHOS family of catalysts is highly efficient for the asymmetric hydrogenation of various substituted acetamidoacrylates and enol acetates yielding products of high enantiomeric excesses.¹ Efficient ligand for the asymmetric hydrogenation of imines, enamines, and enamides.²
2. Asymmetric hydrogenation of vinyl alcohols.²
3. Catalyst used for the asymmetric hydrogenation of enol phosphonates.⁴
4. Asymmetric hydrogenation of allylic alcohols.⁵
5. Ligand for the catalytic asymmetric [4+1] cycloaddition of vinylallenes with CO.⁵
6. Ligand for the Rh-catalyzed asymmetric enyne cycloisomerization.⁶
7. Catalytic enantioselective addition of dialkylzinc to N-Diphenylphosphinoylimines.⁸
8. Palladium-catalyzed asymmetric phosphination.⁹
9. Palladium-catalyzed asymmetric hydrogenation of carbonyls.¹⁰
10. Palladium-catalyzed 1,4 arylation of α , β -unsaturated ketones.¹¹
11. Asymmetric, Ir-catalyzed, [2+2+2] cycloaddition.¹²
12. Asymmetric palladium-catalyzed synthesis of 2-methyl-indolines via C-H activation.¹³
13. Copper-catalyzed monoborylation of 1,3-Dienes.¹⁴
14. Rhodium-catalyzed enantioselective transmetalation.¹⁵
15. CuH-catalyzed hydroamination of styrenes.¹⁶



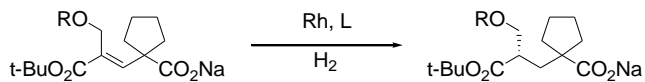
**Tech. Note (1)
Ref. (2)**



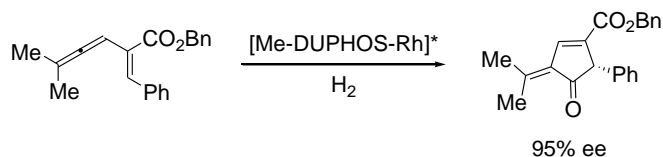
**Tech. Note (2)
Ref. (3)**



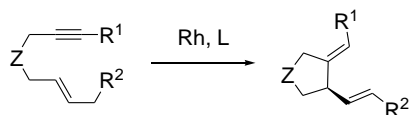
**Tech. Note (3)
Ref. (4)**



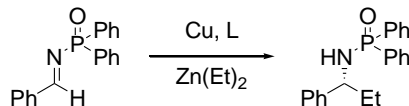
**Tech. Note (4)
Ref. (5)**



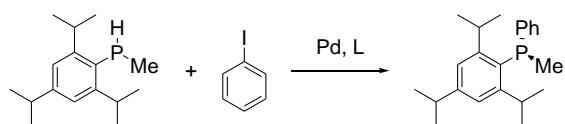
**Tech. Note (5)
Ref. (6)**



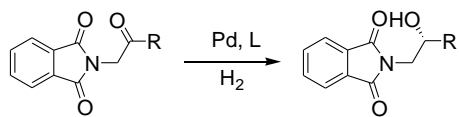
**Tech. Note (6)
Ref. (7)**



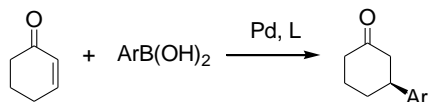
**Tech. Note (7)
Ref. (8)**



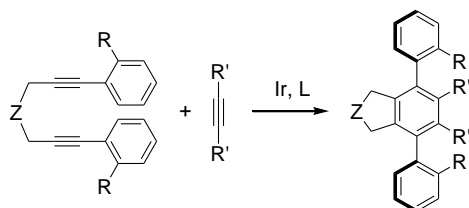
Tech. Note (8)
Ref. (9)



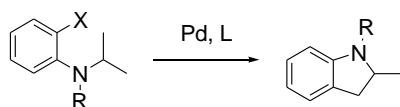
Tech. Note (9)
Ref. (10)



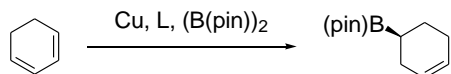
Tech. Note (10)
Ref. (11)



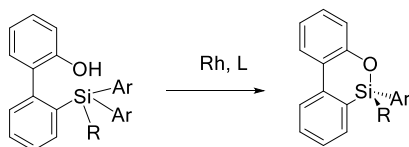
Tech. Note (11)
Ref. (12)



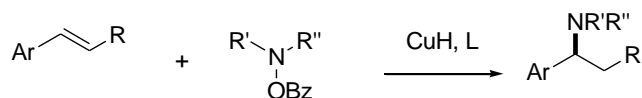
Tech. Note (12)
Ref. (13)



Tech. Note (13)
Ref. (14)



Tech. Note (14)
Ref. (15)



Tech. Note (15)
Ref. (16)

References:

1. (a) Burk, M.J., *Handbook of Chiral Chemicals*, Abel, Ager, D.J., Ed. (Marcel Dekker, Inc., New York, 1999) Ch 18, p 339. (review). (b) *Acc. Chem. Res.*, **2000**, 33, 363. (review)
2. (a) *J. Am. Chem. Soc.*, **1993**, 115, 10125. (b) *J. Am. Chem. Soc.*, **1992**, 114, 6266. (c) *J. Am. Chem. Soc.*, **1996**, 118, 5142. (d) *Tetrahedron Lett.*, **1999**, 40, 6685. (e) *J. Am. Chem. Soc.*, **1995**, 117, 9375.
3. *J. Am. Chem. Soc.*, **1991**, 113, 8518.
4. *Org. Lett.*, **1999**, 1, 387.
5. *J. Org. Chem.*, **1999**, 64, 3290.
6. *J. Am. Chem. Soc.*, **1999**, 121, 4130.
7. *Angew. Chem. Int. Ed.*, **2000**, 39, 4104.
8. *J. Am. Chem. Soc.*, **2003**, 125, 1692.
9. *J. Am. Chem. Soc.*, **2002**, 124, 13356.
10. *Org. Lett.*, **2005**, 7, 3235.
11. *Org. Lett.*, **2005**, 7, 5309.
12. *J. Am. Chem. Soc.*, **2004**, 126, 8382.
13. *Chem. Commun.*, **2011**, 47, 11483.
14. *J. Am. Chem. Soc.*, **2010**, 132, 1226.
15. *J. Am. Chem. Soc.*, **2012**, 134, 16955.
16. *Angew. Chem. Int. Ed.*, **2013**, 52, 10830.