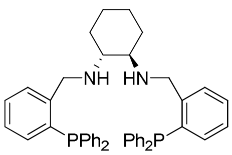
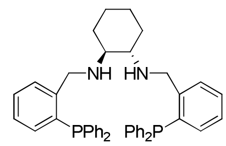
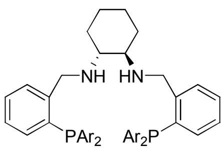
Diaminodiphosphine Ligands



K15-0026
(1R,2R)-N,N-Bis(2-(diphenylphosphino)-benzyl)cyclohexane-1,2-diamine, ≥97.0%
$C_{44}H_{44}N_2P_2$; F.W: 662.78; [*174758-63-5*]

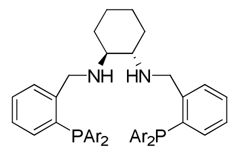


K15-0027
(1S,2S)-N,N-Bis(2-(diphenylphosphino)-benzyl)cyclohexane-1,2-diamine, ≥97.0%
$C_{44}H_{44}N_2P_2$; F.W: 662.78; [*174677-83-9*]



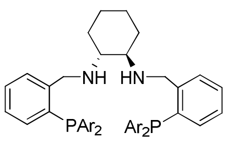
Ar = *p*-tolyl

K15-0088
(1R,2R)-N,N-Bis(2-(di-p-tolylphosphino)-benzyl)cyclohexane-1,2-diamine, ≥97.0%
$C_{48}H_{52}N_2P_2$; F.W: 718.89



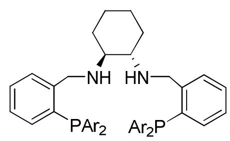
Ar = *p*-tolyl

K15-0089
(1S,2S)-N,N-Bis(2-(di-p-tolylphosphino)-benzyl)cyclohexane-1,2-diamine, ≥97.0%
$C_{48}H_{52}N_2P_2$; F.W: 718.89



Ar = 3,5-dimethylphenyl

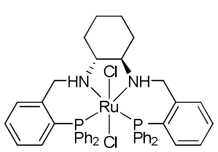
K15-0090
(1R,2R)-N,N-Bis(2-(bis(3,5-dimethylphenyl)-phosphino)benzyl)cyclohexane-1,2-diamine, ≥97.0%
$C_{52}H_{60}N_2P_2$; F.W: 774.99



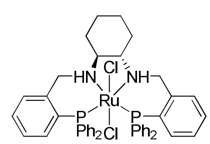
Ar = 3,5-dimethylphenyl

K15-0091
(1S,2S)-N,N-Bis(2-(bis(3,5-dimethylphenyl)-phosphino)benzyl)cyclohexane-1,2-diamine, ≥97.0%
$C_{52}H_{60}N_2P_2$; F.W: 774.99

Ruthenium Diaminodiphosphine Catalysts



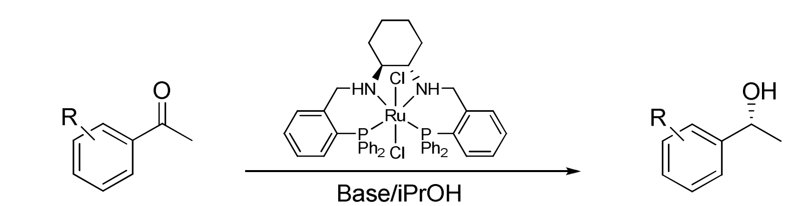
K44-0042
Dichloro((1R,2R)-N,N-Bis(2-(diphenylphosphino)benzyl)cyclohexane-1,2-diamine)-ruthenium(II), ≥97.0%
$C_{44}H_{44}Cl_2N_2P_2Ru$; F.W: 834.76; [*429678-11-5*]



K44-0043
Dichloro((1S,2S)-N,N-Bis(2-(diphenylphosphino)benzyl)cyclohexane-1,2-diamine)-ruthenium(II), ≥97.0%
$C_{44}H_{44}Cl_2N_2P_2Ru$; F.W: 834.76; [*302924-37-4*]

Kanata Chemical Technologies offers a series of chiral diaminodiphosphine ligands. The metal complexes of these ligands are excellent catalyst precursors for the asymmetric H_2[1] and transfer hydrogenation[2-4] of a series of ketones leading to the corresponding chiral alcohols with up to 99% e.e. (reactions 1-3). They are also effective catalysts for the enantioselective epoxidation of a number of unfunctionalized olefins with hydrogen peroxide,[5] and the kinetic resolution of racemic secondary alcohols.[6]

Asymmetric Transfer Hydrogenation of Aromatic Ketones:[2]



R = H, Cl, CN, F, OMe

up to 97% e.e.

[1]

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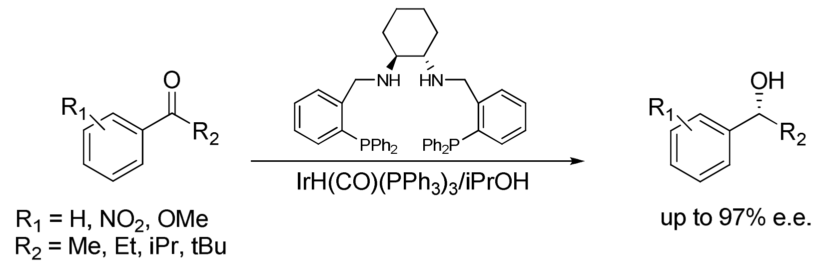
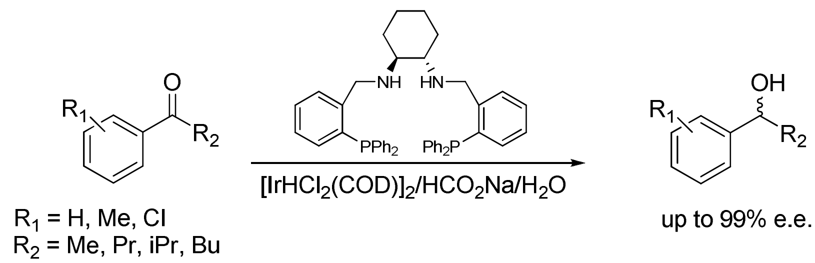
Asymmetric Transfer Hydrogenation of Aromatic Ketones under Base-Free Conditions:[3]



[2]

Asymmetric Transfer Hydrogenation of Aromatic Ketones in Aqueous Media:[4]



[3]

References

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2. Gao, J. X. *et al. Organometallics* **1996**, *15*, 1087
3. Dong, Z. -R. *et al. Org. Lett.* **2005**, *7*, 1043.
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5. Stoop, R. M. *et al. Organometallics* **2000**, *19*, 4117.
6. Li, Y. -Y. *et al. Org. Lett.* **2006**, *8*, 5565.

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