

96-7052

NEW

Paracyclophane Kit

Contains the smallest unit size of the following items listed below.
Components available for individual sale.

1 kit

06-0104	racemic-4-Bromo[2.2]paracyclophane, min. 95% [1908-61-8] C ₁₆ H ₁₅ Br; FW: 287.19; white powdr.	500mg 2g
06-0460	racemic-4,12-Dibromo[2.2]paracyclophane, min. 95% [23927-40-4] C ₁₆ H ₁₄ Br ₂ ; FW: 366.09; white to off-white powdr.	250mg 1g
08-0700	racemic-4,12-Dihydroxy[2.2]paracyclophane, min. 97% [612492-27-0] C ₁₆ H ₁₆ O ₂ ; FW: 240.30; yellow to brown powdr.	100mg 500mg
08-2027	racemic-4-Hydroxy[2.2]paracyclophane, min. 97% [157018-15-0] C ₁₆ H ₁₆ O; FW: 224.30; yellow to tan powdr.	250mg 1g

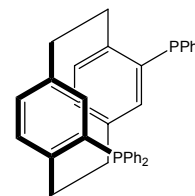
Paracyclophane-based Ligands and Catalysts

15-0425	(R)-(-)-4,12-Bis(diphenylphosphino)-[2.2]-paracyclophane, min. 95% (R)-PHANEPHOS C ₄₀ H ₃₄ P ₂ ; FW: 576.65; white solid; [α] _D -62.6° (c 3.11, CH ₂ Cl ₂); m.p. 222-225° Note: Sold in collaboration with Chirotech for research purposes only. US Patent no. 5874629.	100mg 500mg
---------	---	----------------

Technical Note:

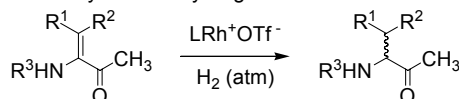
- See 15-0426.

15-0426	(S)-(+)-4,12-Bis(diphenylphosphino)-[2.2]-paracyclophane, min. 95% (S)-PHANEPHOS [192463-40-4] C ₄₀ H ₃₄ P ₂ ; FW: 576.65; white solid; [α] _D +63.2° (c 3.27, CH ₂ Cl ₂); m.p. 222-225° Note: Sold in collaboration with Chirotech for research purposes only. US Patent no. 5874629.	100mg 500mg
---------	--	----------------

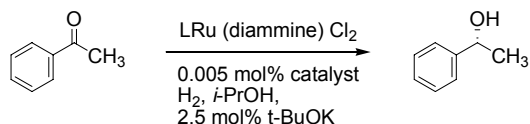


Technical Notes:

- Highly enantioselective catalyst for the hydrogenation of dehydroamino acids, methyl esters under mild conditions.
- Asymmetric hydrogenation of a wide variety of aromatic, heteroaromatic, and α-β unsaturated ketones.



Tech. Note (1)
Ref. (1)



Tech. Note (2)
Ref. (2)

References:

- J. Am. Chem. Soc.*, **1997**, 119, 6207.
- Org. Lett.*, **2000**, 2, 4173.

15-0730	(R)-(-)-4,12-Bis(di(3,5-xylyl)phosphino)-[2.2]-paracyclophane, min. 95% CTH-(R)-3,5-xylyl-PHANEPHOS C ₄₈ H ₅₀ P ₂ ; FW: 688.86; white powdr. Note: Sold in collaboration with JM for research purposes only. US patent Application No 5874629 and patents arising therefrom.	100mg 500mg
---------	--	----------------

Technical Notes:

- See 15-0426.
- See 15-0731.

Visit www.strem.com for new product information and searchable catalog.

Strem Chemicals, Inc.
7 Mulliken Way
Newburyport, MA 01950-4098
U.S.A.
Tel.: (978) 499-1600
Fax: (978) 465-3104
Email: info@strem.com

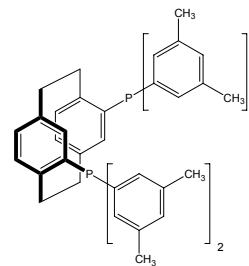
Strem Chemicals, Inc.
15, rue de l'Atome
Zone Industrielle
67800 Bischheim France
Tel.: (33) 03 88 62 52 60
Fax: (33) 03 88 62 26 81
Email: info.europe@strem.com

Strem Chemicals, Inc.
Postfach 1215
77672 Kehl
Germany
Telefon: 0 78 51/ 7 58 79
Email: info.europe@strem.com

Strem Chemicals UK, Ltd.
41 Hills Road
Cambridge
England CB2 1NT
Tel.: 0845 643 7263
Fax: 01223 368021
Email: enquiries@strem.co.uk

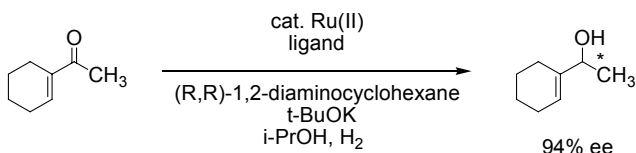
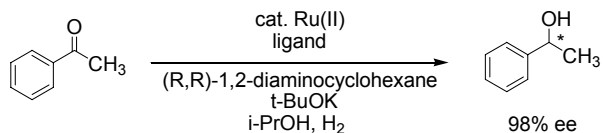
15-0731 (S)-(+)-4,12-Bis(di(3,5-xylyl)phosphino)-[2.2]-paracyclophane, min. 93% CTH-(S)-3,5-xylyl-PHANEPHOS
 $C_{48}H_{50}P_2$; FW: 688.86; white powdr.
 Note: Sold in collaboration with JM for research purposes only. US patent Application No 5874629 and patents arising therefrom.

100mg
500mg



Technical Notes:

- See 15-0426.
- Chiral ligand employed in the enantioselective hydrogenation of various ketones.

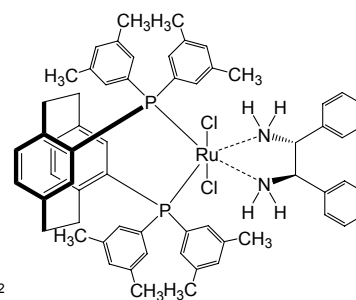


Reference:

- Org. Lett.*, **2000**, 2, 4173.

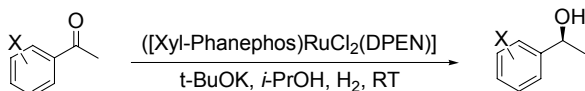
44-0380 Dichloro[(R)-(-)-4,12-bis(di(3,5-xylyl)phosphino)-[2.2]-paracyclophane] [(1S,2S)-(-)-1,2-diphenylethylenediamine]ruthenium (II), min. 95% [325150-57-0]
 $RuCl_2[C_{48}H_{50}P_2][C_{14}H_{16}N_2]$; FW: 1073.12; cream colored powdr.
air sensitive

10mg
50mg
250mg

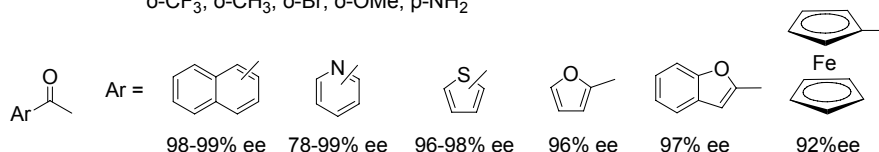


Technical Notes:

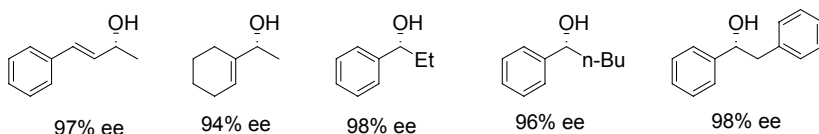
- The Noyori [(diphosphine) RuCl₂ (diamine)] catalysts containing the chiral ligand Xyl-Phanephos display exceptional activity and enantioselectivity in the asymmetric hydrogenation of a wide range of aromatic, heteroaromatic and α,β -unsaturated ketones.
- Reactions are performed under mild conditions at room temperature and typically at low H₂ pressures of 2-10 bar. High substrate concentrations of up to 40% w/v are tolerated.
- Molar substrate/catalyst ratios of up to 100,000/1 are achieved with excellent reactivity and enantioselectivity using commercial grade substrates and solvents.



X = p-CF₃, p-Br, p-F, p-OMe, m-CF₃, o-CF₃, o-CH₃, o-Br, o-OMe, p-NH₂



Other Examples



References:

- Org. Lett.*, **2000**, 2, 4173.
- Burk, M.J.; Hems, W.; Zanotti-Gerosa, A. PCT WO/0174829 A1, **2001**.
- Org. Proc. Res. Dev.*, **2003**, 7, 89.

Visit www.strem.com for new product information and searchable catalog.

Strem Chemicals, Inc.
 7 Mulliken Way
 Newburyport, MA 01950-4098
 U.S.A.
 Tel.: (978) 499-1600
 Fax: (978) 465-3104
 Email: info@strem.com

Strem Chemicals, Inc.
 15, rue de l'Atome
 Zone Industrielle
 67800 Bischheim France
 Tel.: (33) 03 88 62 52 60
 Fax: (33) 03 88 62 26 81
 Email: info.europe@strem.com

Strem Chemicals, Inc.
 Postfach 1215
 77672 Kehl
 Germany
 Telefon: 0 78 51/ 7 58 79
 Email: info.europe@strem.com

Strem Chemicals UK, Ltd.
 41 Hills Road
 Cambridge
 England CB2 1NT
 Tel.: 0845 643 7263
 Fax: 01223 368021
 Email: enquiries@strem.co.uk

44-0381 Dichloro[(S)-(+)-4,12-bis(di(3,5-xylyl)phosphino)-[2.2]-paracyclophane]**[(1R,2R)-(+)-1,2-diphenylethylenediamine]ruthenium (II), min. 95%**RuCl₂[C₄₈H₅₀P₂][C₁₄H₁₆N₂]; FW: 1073.12; cream colored powdr.*air sensitive*

Note: Sold in collaboration with Chirotech for research purposes only. US Patent nos. 5874629 and 6486337.

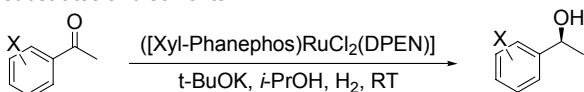
10mg

50mg

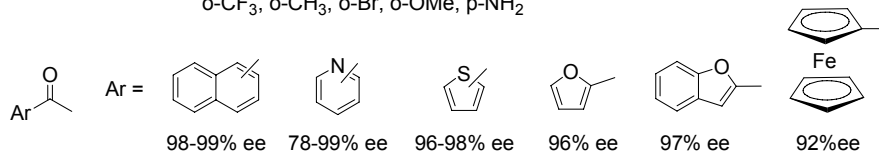
250mg

Technical Notes:

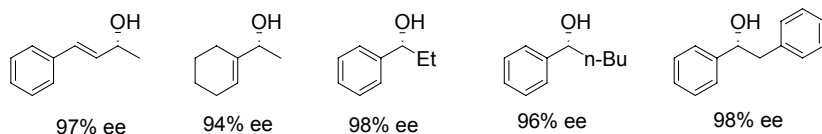
1. The Noyori [(diphosphine) RuCl₂ (diamine)] catalysts containing the chiral ligand Xylyl-Phanephos display exceptional activity and enantioselectivity in the asymmetric hydrogenation of a wide range of aromatic, heteroaromatic and α,β -unsaturated ketones.
2. Reactions are performed under mild conditions at room temperature and typically at low H₂ pressures of 2-10 bar. High substrate concentrations of up to 40% w/v are tolerated.
3. Molar substrate/catalyst ratios of up to 100,000/1 are achieved with excellent reactivity and enantioselectivity using commercial grade substrates and solvents.



X = p-CF₃, p-Br, p-F, p-OMe, m-CF₃,
o-CF₃, o-CH₃, o-Br, o-OMe, p-NH₂



Other Examples



References:

1. *Org. Lett.*, **2000**, 2, 4173.
2. Burk, M.J.; Hems, W.; Zanotti-Gerosa, A. PCT WO/0174829 A1, **2001**.
3. *Org. Proc. Res. Dev.*, **2003**, 7, 89.

Visit www.strem.com for new product information and searchable catalog.

Strem Chemicals, Inc.

7 Mulliken Way
Newburyport, MA 01950-4098
U.S.A.
Tel.: (978) 499-1600
Fax: (978) 465-3104
Email: info@strem.com

Strem Chemicals, Inc.

15, rue de l'Atome
Zone Industrielle
67800 Bischheim France
Tel.: (33) 03 88 62 52 60
Fax: (33) 03 88 62 26 81
Email: info.europe@strem.com

Strem Chemicals, Inc.

Postfach 1215
77672 Kehl
Germany
Telefon: 0 78 51/ 7 58 79
Email: info.europe@strem.com

Strem Chemicals UK, Ltd.

41 Hills Road
Cambridge
England CB2 1NT
Tel.: 0845 643 7263
Fax: 01223 368021
Email: enquiries@strem.co.uk