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Catalog # 15-8554

(8aR)-18-Hydroxy-8,9-diphenyl-18-oxide-diphenanthro[4,3-d:3',4'-f] [1,3,2] dioxaphosphepin, 98%, (99% ee)

Technical Notes:

- 1. Organocatalyst for amidation of imines.
- 2. Organocatalyst for desymmetrization of *meso*-aziridines.
- 3. Chiral Brønsted acid used in catalytic asymmetric aza-Darzens aziridine synthesis.
- Organocatalyst for the remote α-C-H bond activation of alcohols or amines triggered by the radical trifluoromethylation of alkenes.
- 5. Used in the enantioselective Pd/Brønsted acid-catalyzed carbonylative carbocyclization of enallenes via cross-dehydrogenative coupling with terminal alkynes.
- Co-catalyst used in Co/achiral pyridine ligand catalyzed enantioselective radical oxytrifluoromethylation of alkenes with alcohols.
- 7. Used in the enantioselective synthesis of tropanes via Brønsted acid catalyzed pseudotransannular desymmetrization.

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R1 + CO (1 atm) + = R
$$\frac{[Pd]-(R)-VAPOL\ PA}{BQ;\ Solvent,\ 0^{\circ}C}$$
 Ref. (5)

Ref. (5)

Ref. (6)

Ref. (6)

Ref. (7)

References:

- 1. J. Am. Chem. Soc. 2005, 127, 15696.
- 2. J. Am. Chem. Soc. 2007, 129, 12084.
- 3. Org. Lett. 2011, 13, 2188.
- 4. Org. Chem. Front., 2017, 4, 2139.
- 5. Angew. Chem. Int. Ed. 2017, 56, 4535.
- 6. Angew. Chem. Int. Ed. 2017, 56, 8883.
- 7. Angew. Chem. Int. Ed. 2020, 59, 6780.