Strem Chemicals, Inc.

www.strem.com

Catalog # 15-1363 (11aR)-10,11,12,13-Tetrahydro-5-hydroxy-3,7-di-9-phenanthrenyl-5-oxide-diindeno[7,1-de:1',7'-fg][1,3,2]dioxaphosphocin, min. 98%

Technical Notes:

- 1. Catalytic asymmetric homo-1,3-dipolar cycloadditions of azomethine ylides: diastereo and enantioselective synthesis of imidazolidines
- 2. Enantioselective construction of the biologically significant dibenzo[1,4]diazepine scaffold via organocatalytic asymmetric three-component reactions
- 3. Enantioselective construction of the biologically important cyclopenta[1,4]diazepine framework enabled by asymmetric catalysis by chiral spiro-phosphoric acid.
- Triply hydrogen-bond-directed enantioselective assembly of pyrrolobenzo-1,4-diazine skeletons with quaternary stereocenters.

- the first catalytic, asymmetric construction of the dibenzo[1,4]diazepine scaffold
- the first catalytic asymmetric version of this three-component reaction

up to 98% yield up to 92:8 er 19 examples

NH₂ + R¹
$$\stackrel{||}{\parallel}$$
 $\stackrel{||}{\parallel}$ $\stackrel{||}{\parallel$

References:

- Tetrahedron Asymmetry, 2014, 25, 617.
 Adv. Synth. Catal., 2009, 356, 2009.
 Eur. J. Org. Chem., 2015, 2015, 7926.
 Chem-Eur. J., 2015, 21, 9039.