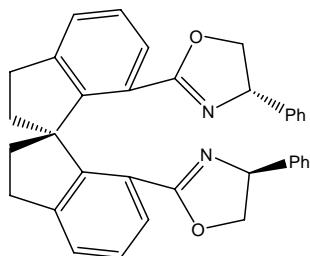
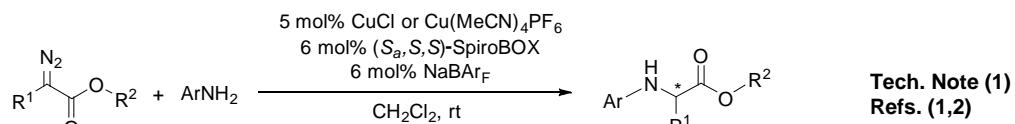


Catalog # 07-5195 (S)-7,7'-Bis[(4S)-(phenyl)oxazol-2-yl]-2,2',3,3'-tetrahydro-1,1'-spirobiindane, min. 97% (S_a,S,S)-SpiroBOX

Technical Notes:

1. Chiral ligands for copper-catalyzed asymmetric insertions of carbenoids into N–H bond of anilines.
2. Chiral ligands for copper or palladium-catalyzed asymmetric insertions of carbenoids into O–H bond of phenols.
3. Chiral ligands for copper or iron-catalyzed asymmetric insertions of carbenoids into O–H bond of water.
4. Chiral ligands for copper-catalyzed asymmetric insertions of carbenoids into S–H bonds of arylmethylene mercaptans.



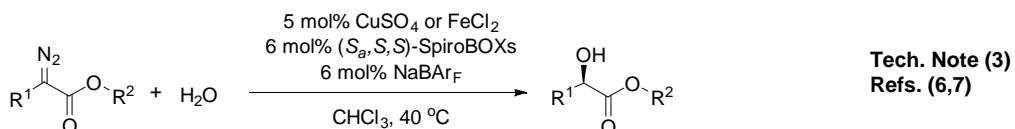
$\text{R}^1 = \text{alkyl}$
 $\text{R}^2 = \text{Me, Et, } t\text{-Bu}$

51 - 96% yield
85 - 98% ee



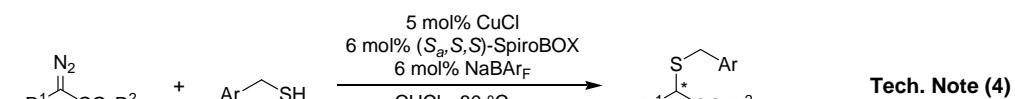
$\text{R} = \text{Me, Et, } t\text{-Bu}$

62 - 88% yield
95 - 99.6% ee



$\text{R}^1 = \text{aryl, Me}$
 $\text{R}^2 = \text{Me, Et, } i\text{-Pr}$

70 - 92% yield
36 - 94% ee



$\text{R}^1 = \text{Me, Ar}$
 $\text{R}^2 = \text{Me, Et, } t\text{-Bu, Bn}$

59 - 91 %
up to 85% ee

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