Category
Metal-Catalyzed Asymmetric
Synthesis and
Stereoselective Reactions

## Key words

cyclopentadiene
C-H allylation
rhodium(III)
benzamides

16 examples up to $91 \%$ yield
er up to 99:1
0.1 mmol scale

## Selected examples:


$83 \%$ yield
er $=96: 4$

$72 \%$ yield
er $=97.5: 2.5$

$72 \%$ yield
er $=95: 5$

66\% yield
er = 99:1

Synthesis of the catalyst:


Significance: A class of chiral Cp ligands with tuneable steric parameters is reported and used in the Rh(III)-catalyzed allylation of N -methoxybenzamides. The obtained yields are good and the enantioselectivities excellent.

Comment: Cyclopentadienyl (Cp) ligands are among the most versatile and frequently used ligands to access robust and highly catalytically active transition-metal complexes. However, there are only a few chiral Cp ligands reported so far.

