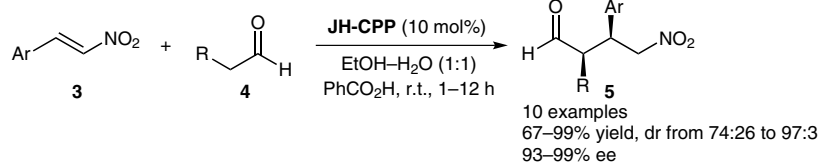
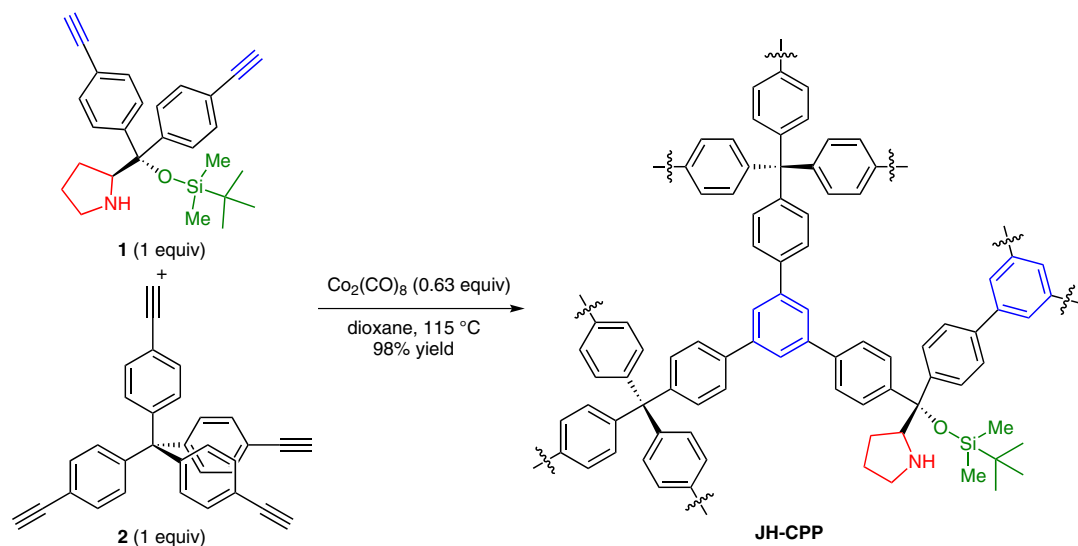
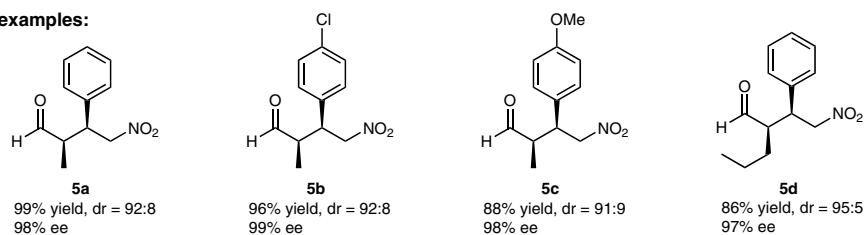


Asymmetric Michael Addition of Aldehydes to Nitroalkenes Using JH-CPP



Selected examples:



Significance: A chiral porous polymer containing the Jørgensen–Hayashi catalyst (**JH-CPP**) was prepared by the $\text{Co}_2(\text{CO})_8$ -mediated trimerization of the ethynyl-modified Jørgensen–Hayashi catalyst **1** with tetra(4-ethynylphenyl)methane (**2**) in 98% yield. **JH-CPP** catalyzed the asymmetric Michael addition of aldehydes **4** to nitroalkenes **3** to give the corresponding adducts **5** in 67–99% yield with high stereoselectivity (10 examples).

Comment: For the formation of **5b**, **JH-CPP** was recovered by centrifugation and reused four times without loss of stereoselectivity, while the yield of **5b** decreased from the third reuse (1st reuse: 94% yield, 98% ee, dr = 92:8; 3rd reuse: 51% yield, 97% ee, dr = 91:9; 4th reuse: 39% yield, 97% ee, dr = 88:12). **JH-CPP** was characterized by N₂ adsorption, TGA, XRD, SEM, and ¹³C CP/MAS NMR spectroscopy.