Enantioselective Michael Addition Using a Nickel/Rotaxane Catalyst

**Significance:** In contrast to traditional ligands, rotaxanes can provide a more well-defined binding pocket leading to enhanced enantioinduction. The authors report the synthesis of the above [2]rotaxane along with its application as a ligand for a nickel-catalyzed Michael addition.

**Comment:** Although the reaction with rotaxane was considerably slower than with a traditional diamine (27 vs. 2 days) the enantioinduction for the rotaxane was much higher in the nickel-catalyzed process. One drawback of this methodology is the high molecular weight of the ligand (1896 g/mol). On 0.2 mmol scale, 30 mg of nitro olefin requires 38 mg of ligand.