Cyclohexane Desymmetrization via Rhodium-Catalyzed C–H Activation

**Significance:** The authors report a site- and stereoselective desymmetrization of cyclohexanes via a rhodium-complex-catalyzed C–H functionalization.

**Comment:** The method does not require any directing group and can be applied to unactivated C–H bonds, which presents a limitation for similar methods.

**Selected examples:**

- Disubstituted cyclohexanes:
  - 72% yield, 90% ee, **rr**: 11:1
  - 70% yield, 98% ee, **rr**: 3.7:1
  - 70% yield, 94% ee, **rr**: 2:1

**R1 = Ar, Het(Ar)**  
**R2 = H, Alk**  
**n = 0, 1, 2**

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**DOI:** 10.1055/s-0037-1612309; **Reg-No.:** P01919SF

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Desymmetrization of Cyclohexanes by Site- and Stereoselective C–H Functionalization