Y. ZHANG, J. GUO, P. VANNATTA, Y. JIANG, J. PHIPPS, R. ROKNUZZAMAN, H. RABAÂ, K. TAN, T. ALSHAHRANI, S. MA* (UNIVERSITY OF NORTH TEXAS, DENTON, USA) Metal-Free Heterogeneous Asymmetric Hydrogenation of Olefins Promoted by Chiral Frustrated Lewis Pair Framework *J. Am. Chem. Soc.* **2024**, *146*, 979–987, DOI: 10.1021/jacs.3c11607.

Asymmetric Hydrogenation of Acrylates by COF with Chiral Frustrated Lewis Pairs

Significance: A covalent organic framework tethering a chiral frustrated Lewis pair (**CFLPF**) was prepared according to eq. 1. **CFLPF** promoted the asymmetric hydrogenation of acrylates with 60 bar hydrogen to give the corresponding α -chiral propionates in up to 97% yield and 87% ee (eq. 2).

Comment: In the hydrogenation reaction, the catalyst was recovered and reused four times without significant loss of its catalytic activity. The robustness of the catalyst was supported by the PX-RD, EDS, XPS, BET, and NMR analyses of the reused catalyst.

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Polymer-Supported Synthesis

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