Enantioselective Aldol Reactions with Fluoroacetate Surrogates

Significance: Saadi and Wennemers report an enantioselective aldol reaction of aromatic or aliphatic aldehydes with fluoromalonic acid half-thioesters as fluoroacetate surrogates. The resulting fluorinated thioesters are obtained in reasonable to high yields and with good to excellent enantioenrichments.

Comment: Organofluorine compounds are important targets, and the present method permits the incorporation of fluorine with high enantioenrichment. The method underlines the value of malonic acid half-thioesters as nucleophiles in bifunctional cinchona alkaloid organocatalysis.