Asymmetric Ring-Opening of \textit{meso}-Epoxides with a Chiral Metal-Organic Framework

\textbf{Significance:} A chiral MOF (UTSA-32) was prepared from (S)-4,4'-dibromo-6,6'-dichloro-2,2'-diethoxy-1,1'-binaphthyl in three steps (eq. 1). UTSA-32 catalyzed the enantioselective ring opening of \textit{meso}-epoxides with anilines to give the corresponding \(\alpha\)-hydroxyamines in 69–95\% yield with 12–89\% ee (11 examples, eq. 2).

\textbf{Comment:} UTSA-32 was characterized by single-crystal X-ray diffraction, PXRD, TGA, and BET analyses. Single-crystal X-ray diffraction analysis of UTSA-32 revealed that the binuclear zinc clusters are bridged by the carboxylic groups of organic linker L to form a three-dimensional framework.