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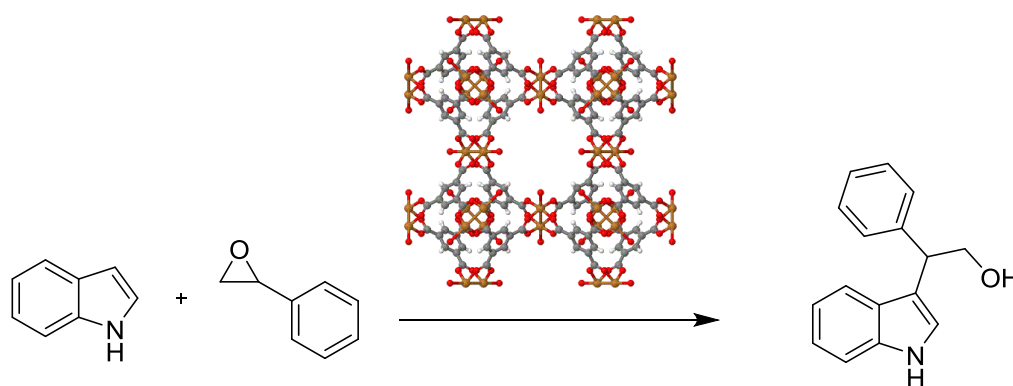
Regioselective Ring Opening of Styrene Oxide by Carbon Nucleophiles Catalyzed by Metal-Organic Frameworks under Solvent-free Conditions

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Graphical Abstract



Abstract

In the present study, the regioselective ring opening of styrene oxide by indole, aniline, imidazole, pyrrole and benzimidazole as carbon nucleophiles in the presence of Fe(BTC) and $\text{Cu}_3(\text{BTC})_2$ as heterogeneous solid acid catalysts under solvent-free conditions under mild reaction conditions is reported. Furthermore, Fe(BTC) and $\text{Cu}_3(\text{BTC})_2$ exhibited higher activity under solvent-free conditions than in the presence of solvents. Control experiments with the corresponding homogeneous catalysts reveal the positive role played by the Lewis acids in these MOFs. On the other hand, the activity of these catalysts is significantly reduced in the presence

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