Ligand-Controlled Copper-Catalyzed Oxidation of Benzylamines with Oxygen

Significance: Commercially available red copper catalyzed the oxidation of benzylamines with molecular dioxygen in the presence of isoquinoline or 1,10-phenanthroline to give the corresponding benzonitriles (eq. 1) or dibenzylimines (eq. 2).

Comment: The SEM analyses of the catalyst before and after the reaction showed that the surface of the catalyst was roughened during the reaction to suggest leaching of copper.

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