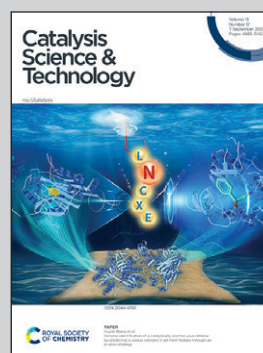


Showcasing research from Professor Hideyuki Higashimura's laboratory, Okayama University of Science, Okayama, Japan.

Enzyme-inspired catalysts with high activity and selectivity for oxidative polymerization of 2-phenylphenol

As a new concept, enzyme-inspired catalysts have been developed for the regioselective oxidative polymerization of 2-phenylphenol. These copper catalysts having 1,4,7-triazacyclononans substituted with *t*Bu group(s) achieved higher activity for the polymerization and produced poly(2-phenyl phenylene oxide) with higher molecular weight than the previous enzyme-model catalyst without *t*Bu group. The resulting polymer, which exhibits an ultra-low dielectric constant and high thermal stability, is promising as an insulating material for the high speed communication technology.

As featured in:



See Naoki Asao, Kiyoshi Fujisawa, Hideyuki Higashimura *et al.*, *Catal. Sci. Technol.*, 2023, **13**, 4968.