

Showcasing research from Professor Tomoo Mizugaki's laboratory, Graduate School of Engineering Science, Osaka University, Japan.

Reductive amination of carboxylic acids under H_2 using a heterogeneous Pt-Mo catalyst

An aluminum oxide-supported Pt-Mo (Pt-Mo/ γ -Al₂O₃) catalyst exhibits high activity for the reductive amination of carboxylic acids even under 0.1 MPa H₂ pressure. Pt-Mo/ γ -Al₂O₃ is reusable and applicable to the reductive amination of biomass-derived fatty acids such as lauric acid, palmitic acid, and stearic acid to provide their corresponding fatty amines in excellent yields. The unique catalysis of Pt-Mo will make a significant contribution to establish a future sustainable process for alkylamine synthesis.



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