

Title: Conversion of glycidol to glycerol carbonate using Halogen-free bio-based organic salts

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Catalytic transformation of carbon dioxide (CO₂) into higher useful chemicals has gained much interest in organic synthetic chemistry for the exploitation of CO₂ as C1 resources. In recent years, organocatalytic reactions have received wide attention because of cost-effectiveness, sustainability, and non-toxicity. In this work we explore readily biobased organic salts for the cycloaddition of CO₂ to glycidol to generate glycerol carbonate (GC) as a product. GC has obtained much interest due to its several properties such as specific reactivity, biodegradability, lack of toxicity or flammability, solubility in water and low vapor pressure. GC has found a wide range of applications, especially as a building block for the production of chemicals and polymers, organic solvent, a liquid carrier electrolytes in lithium batteries and an additive in cosmetics.

Biography

Jitpisut Poolwong is currently PhD student in department of materials science and engineering at VISTEC. She has completed her bachelor degree from Kasetsart University in a field of Chemistry. She has published 5 papers in reputed journals and has been serving as an editorial board member of repute.