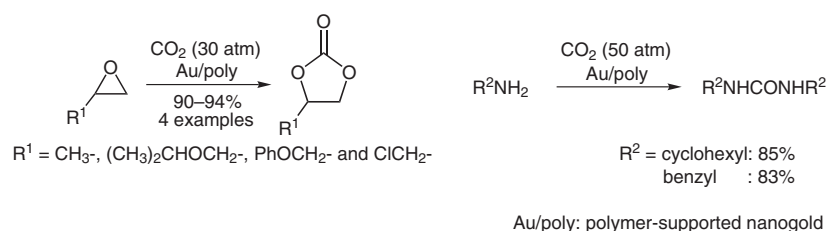


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From CO Oxidation to CO₂ Activation: An Unexpected Catalytic Activity of Polymer-Supported Nanogold
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CO₂ Fixation with a Polymer-Supported Nanogold Catalyst



Significance: A polymer-supported nanogold catalyst was found to promote fixation/incorporation of CO₂ to terminal epoxides to give cyclic carbonates (4 examples, 90–94%, TOF: up to 57900). Carbonylation of primary amines with CO₂ also took place in the presence of the nanogold catalyst to afford disubstituted ureas (2 examples, 83–85%). The catalyst is readily prepared from IRA-400 polymer and HAuCl₄·4H₂O.

Comment: During the last two decades, the chemical fixation/incorporation of CO₂ has received much attention due to the economic and environmental benefits of its utility as a safe and cheap C₁ unit agent.

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