

***UNIVERSITY OF RHODE ISLAND***

***Department of Chemistry***

***VIRTUAL SEMINAR***

***Contact host for Zoom link***

***3:00 P.M., Monday, Feb. 28, 2022***

***Prof. Gonghu Li***

***University of New Hampshire***

***Department of Chemistry***

***“Solar CO<sub>2</sub> Reduction using  
Single Atom Catalysts  
on Carbon Nitride”***

***HOST***

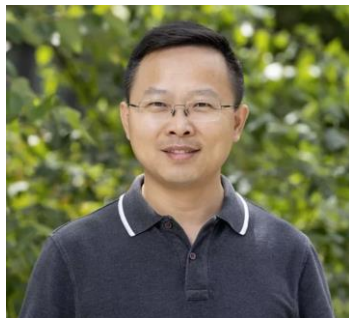
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## Solar CO<sub>2</sub> Reduction using Single Atom Catalysts on Carbon Nitride

Gonghu Li  
Department of Chemistry  
University of New Hampshire



Single atom catalysts (SACs) have demonstrated unique properties in a variety of chemical transformations. We have prepared different cobalt SACs on graphitic carbon nitride (C<sub>3</sub>N<sub>4</sub>) via a microwave method. Experimental techniques and computational tools were employed to explore the structures of the SACs. The SACs showed excellent activities in photocatalytic CO<sub>2</sub> reduction. In these photosynthetic assemblies, C<sub>3</sub>N<sub>4</sub> absorbs visible light and, in the presence of electron donor, transfers electrons to the cobalt sites for CO<sub>2</sub>-reduction catalysis.