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Join us for this month's Environmental Division Webinar program. We will feature our live webinar presentation, "New Frontiers in Tuning Fluid-Surface Interactions and Carbon Transformations for A Sustainable Climate, Energy, and Environmental Future" hosted by Dr. Greeshma Gadikota on October 30th at 5:30 PM EST.

Registration is open to all by clicking the links below.

Register

OCTOBER 30TH

5:30 - 6:30 PM EST

"New Frontiers in Tuning Fluid-Surface Interactions and Carbon Transformations for A Sustainable Climate, Energy, and Environmental Future"

SPEAKER

Dr. Greeshma Gadikota

Cornell University

Presentation Abstract

Meeting our energy and resource needs while removing greenhouse gas emissions from our emissions, air and ocean is one of our grand societal challenges. Novel materials and processes are needed to capture, use, store, and remove greenhouse gases to foster a sustainable future. Towards this end, advancing the science of fluid-solid interactions in complex environments and harnessing this understanding to develop novel and scalable pathways to transform matter involving CO₂ interactions is essential. In this context, we will discuss the role of emerging understanding of the organization and transport behavior of nanoconfined fluids as it relates to the capture, storage, and utilization of CO₂ in natural and engineered environments. Novel multi-phase chemical pathways for producing hydrogen with inherent carbon removal and hybrid absorption-crystallization pathways in CO₂ sourced hydrometallurgical pathways will be discussed in this context. The role of naturally occurring minerals, distributed biomass resources, and low value residues including alkaline residues in enabling our transition to a low carbon future are evaluated.

Speaker Bio

Dr. Greeshma Gadikota is an Assistant Professor and Croll Sesquicentennial Fellow in the School of Civil and Environmental Engineering with a field appointment in the Smith School of Chemical and Biomolecular Engineering at Cornell University. Dr. Gadikota directs the Sustainable Energy and Resource Recovery Group. She held postdoctoral research associate appointments at Princeton University and Columbia University, and a research associate appointment at the National Institute of Standards and Technology (NIST). Her PhD in Chemical Engineering and MS degrees in Chemical Engineering and Operations Research are from Columbia University. Her BS in Chemical Engineering is from Michigan State University. She is a recipient of the DOE, NSF and ARO CAREER Awards, Sigma Xi Young Investigator Award, Cornell Engineering Research Excellence Award, Inaugural Cornell Rising Women Innovator Award, AIChE Sabic Award for Young Professionals from the Particle

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