27th Annual Environmental Engineering & Science Symposium



Keynote Speaker



Universal Biomineralization: Life-Water-Mineral Interactions through Geological Time

Bruce W. Fouke

Professor in the Department of Geology, the Carl R. Woese Institute for Genomic Biology, and the Department of Evolution, Ecology, and Behavior at the University of Illinois Urbana-Champaign. The survival of all forms of Life through geological time has depended on successful adaptation to, and eventual control of, mineral growth. This process of biomineralization has been an essential, unavoidable, and ubiquitously distributed force of nature that offers strategic benefits (access to hostile planetary environments) and profound practical problems (catastrophic mineral burial) for the heat-loving microbes inhabiting thermal spring environments in Yellowstone and beyond. This presentation will explore the scientific renaissance being driven by the study of microbe biomineralization in Yellowstone, and its impact on reframing our basic approaches to understanding the origin and evolution of life, energy extraction, water management, human medicine, and the search for life throughout the cosmos.

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