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ACS Applied Materials & Interfaces

“Smart programmable sponges from basic research to commercialization”

Date: Sep. 24th, 2019

Time: 16:00-18:00

Place: 2F Seminar room, iCeMS main building

Metal–organic frameworks (MOFs) are an emerging class of solid-state materials built up from metal-based nodes and organic linkers. They exhibit permanent porosity and unprecedented surface areas which can be readily tuned through coordination chemistry at the inorganic node and/or organic chemistry at the linkers. The high porosities, tunability, and stability are highly attractive in the context of catalysis. As exemplified by many catalytic enzyme assemblies in nature, site-isolation is a powerful strategy for performing catalytic reactions. MOFs provide an exciting platform for deploying catalysts in a site-isolated fashion and the cavities surrounding them can be engineered to conceptually mimic enzymes. This talk will address new advances in the synthesis and catalytic activity of MOF/Enzyme composite materials developed at Northwestern University. Additionally, commercialization of Metal–Organic Frameworks will be discussed as well.

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