

Special Seminar on Chemistry Research

September 12, 2023, 2:00 PM | ESCNE 2.266

Selective Transformations in Cyclodextrin Metal-Organic Frameworks

The ability to identify and transform selectively similar constitutional fragments in molecules in a predetermined direction over all other possible directions remains a fundamental challenge in relation to the growth and reach of synthetic chemistry. A rapidly emerging approach towards this goal is to leverage synergistic weak-bonding interactions as well as nanoconfinement effects to control regio- and enantioselectivities. This presentation will introduce my past, as well as ongoing efforts, in utilizing cyclodextrin metal-organic frameworks as a robust platform for promoting selective transformations that would otherwise be difficult to achieve.

Speaker: Dr. Aspen X.-Y. Chen

Assistant Professor of Chemistry | University of Hong Kong

Aspen obtained his Ph.D. degree in Chemistry at Princeton University under the supervision of Professor Erik Sorensen. His graduate research focused on the development of transition metal-catalyzed reactions for C-H activation. As a postdoctoral researcher in the laboratory of Professor Sir Fraser Stoddart (2016 Nobel Laureate in Chemistry) at Northwestern University, Aspen investigated a broader range of chemistry under nanoconfinement, including the use of γ -cyclodextrin metal-organic frameworks as robust nanoreactors and the design of artificial molecular machines. Since April 2023, Aspen has been an Assistant Professor of Chemistry at the University of Hong Kong (HKU). He is a recipient of the HKU-100, a prestigious award granted by HKU to outstanding individuals with potential for scientific and scholarly breakthroughs.

Host: Dr. Haoyuan Chen

