

# iCeMS Kitagawa Group Seminar



**Prof. Wai-Yeung Wong**

*Department of Applied Biology & Chemical  
Technology and Research Institute for Smart Energy,  
The Hong Kong Polytechnic University, Hong Kong*

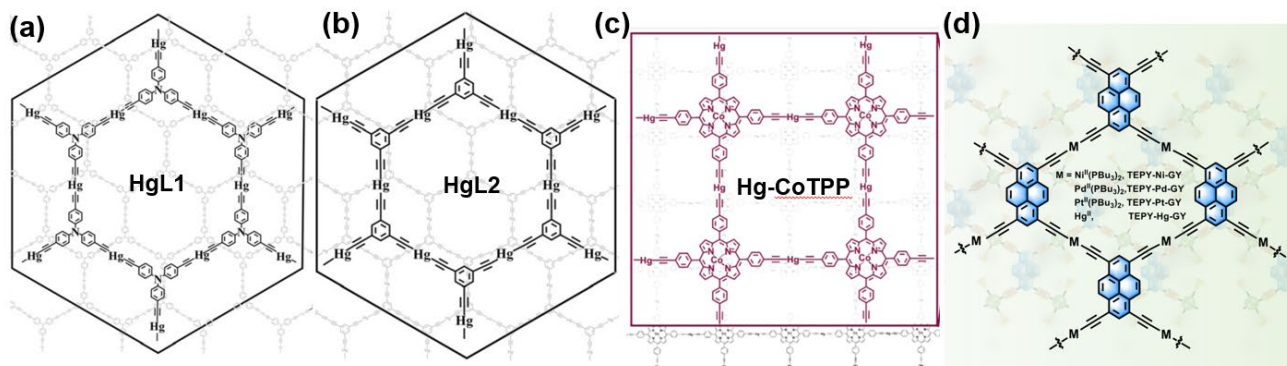
## Metal-Acetylide Frameworks: Synthesis, Characterization and Application Studies

Date: May 29<sup>th</sup>, 2025  
Time: 13:00-14:00  
Place: 2F Seminar room,  
iCeMS main bldg.

[You can find more information here](#)



**Abstract:** Graphynes are non-natural carbon allotropes associated with periodic acetylene linkages that involve a mixed hybridization of  $sp_n$  ( $1 < n < 2$ ). However, related research work on the metallated graphynes is much less explored. In this talk, an interesting family of metal-acetylide frameworks (or metallated graphynes) with different ligand structures will be presented. Bottom-up nanosheets with different topological structures, pore sizes, surface areas and advanced functionalities (e.g. tunable optical, electronic and catalytic properties) can be prepared by different monomer combinations. It is shown that this new class of organometallic 2D nanomaterials can find applications in the fields of nonlinear optics and catalysis.



Contact: Ken-ichi Otake, Kyoto University, iCeMS  
Mail: ootake.kenichi.8a@kyoto-u.ac.jp, Phone: 9861