



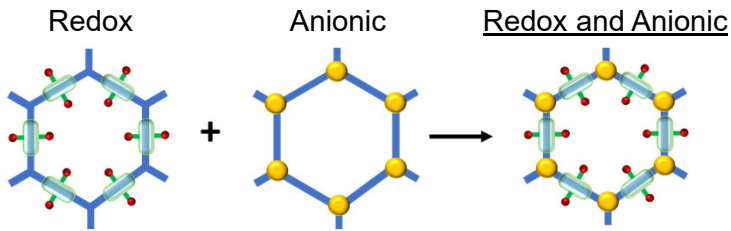
# Advanced Polymers for Energy Applications

Kim Research Group at Hong Kong University of Science and Technology

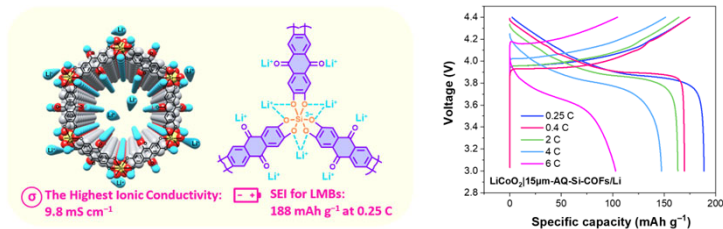


## Batteries and Fuel Cells

### Redox and Anionic COFs

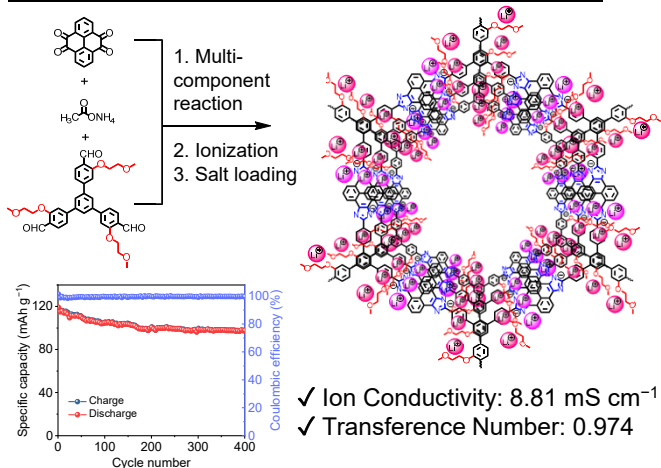


✓ Solid Electrolyte Interphase for Li Metal Batteries



*J. Am. Chem. Soc.* 145, 45, 24603 (2023)  
*Adv. Mater.* 2105647 (2021)

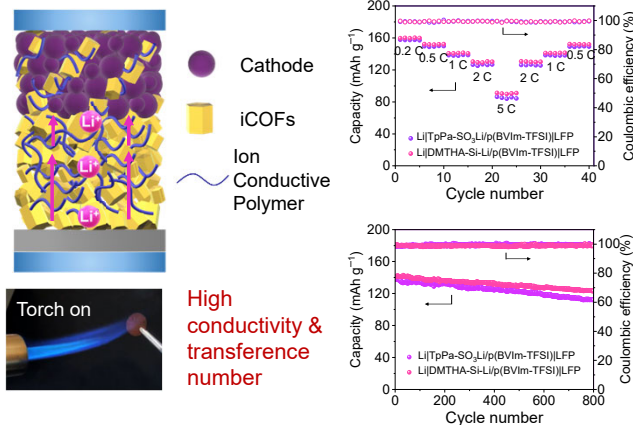
### Imidazolate COFs with Ether



*Angew. Chem. Int. Ed.* e202307690 (2024)

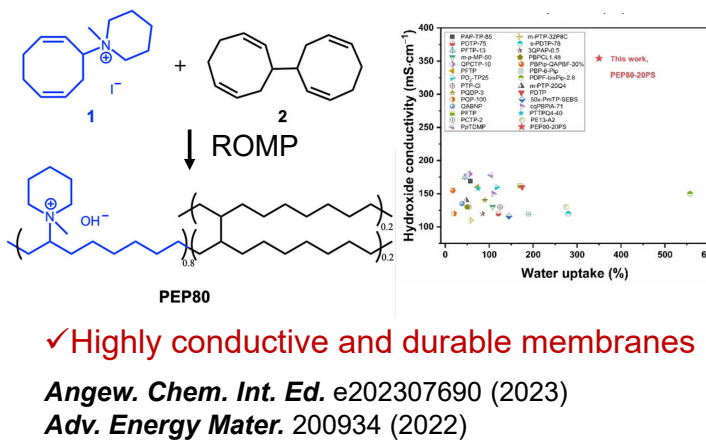
### Ionic COFs Composite Electrolytes

✓ All-Solid-State Li Metal Batteries



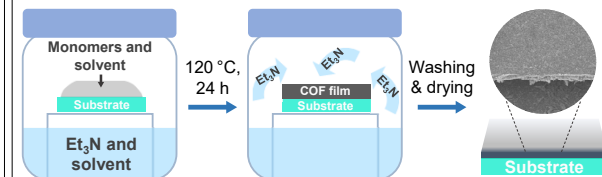
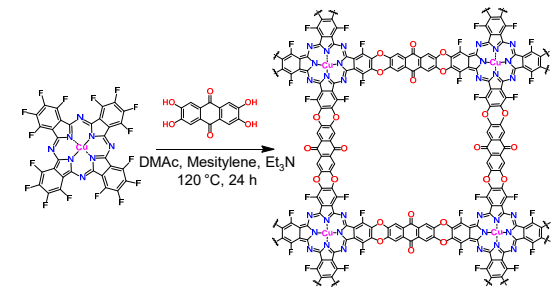
*Adv. Energy Mater.* 2400762 (2024)

### Anion Exchange Membranes for Fuel Cells

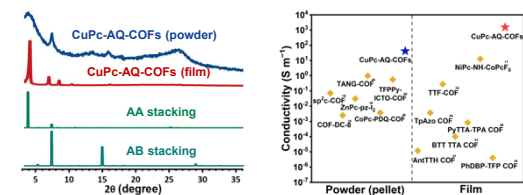


## Catalysts

### Conductive COFs

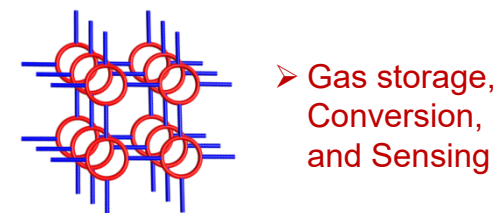


✓ Highest conductivity among COFs



*Small* 2306634 (2023)  
*ACS Materials Au* 3, 28 (2022)

### Macrocycle-COFs



*Adv. Mater.* 2210952 (2023)