

## **Tunable Solid State Fluorescence in Isoreticular Metal Organic Frameworks**

In this work highly stable zirconium based metal organic frameworks isostructural to UiO-66 were prepared utilizing highly fluorescent links. These links allow for the systematic control over the emissive profile of the prepared material. This study shows how the tailoring of organic linkers with specific properties can be incorporated into a MOF in order to produce tunable properties. Three organic linkers were synthesized with Blue, Green, and Orange fluorescence to prepare solid solutions with properties similar to those observed in solution. This tunability allows for complete control of the emission profile as well as the temperature of the emitted white light. This careful design of organic linkers provides a strategy that can give insight into the photophysical manipulation of MOF monomers and their projected properties inside the MOF.

Wesley Newsome  
Fernando Uribe-Romo  
University of Central Florida