Special Issue

Advances in Metal Organic Frameworks (MOFs) for Fluorescence Sensing

Message from the Guest Editor

Metal–organic frameworks (MOFs) represent a promising fluorescence sensing materials. Composed of metal ions or clusters connected by conjugated organic linkers, MOFs exhibit exceptional chemical tunability, high porosity, and structural stability. Their ability to support host–guest interactions and functionalization options enables precise molecular recognition. Derived from their abundant $\boldsymbol{\pi}$ and n electron systems, MOFs' robust fluorescence signals make them well suited for such applications. Their adaptability also allows for integration with other materials, enhancing their practical utility in diverse sensing environments.

Topics of interest include, but are not limited to:

- Design and synthesis of novel fluorescent MOF materials.
- Development of MOF-based fluorescence sensors for solid, liquid, and gaseous targets.
- Post-synthetic modifications (PSM) to enhance sensor performance.
- Investigations into structure-property relationships influencing sensing behaviors.
- Integration of MOFs into coatings, thin films, or hybrid systems for sensing applications.
- MOF-polymer or composites as fluorescence sensors.

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