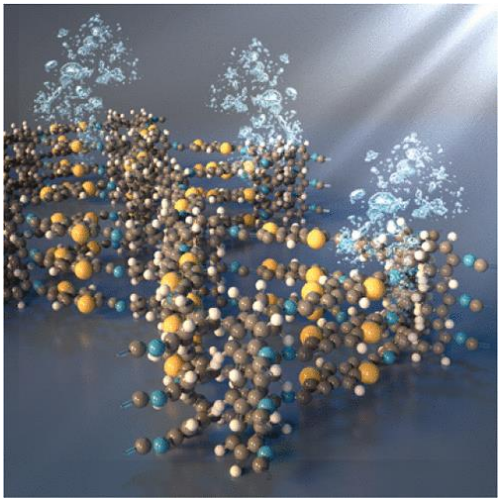
Master Thesis Announcement

Incorporation of Metal Nanoclusters into Covalent Organic Frameworks: A Strategy to Design Photoelectrodes for Water Splitting

Covalent organic frameworks (COFs) attract great interest as novel highly tunable materials for solar fuel technologies and optoelectronic devices. COFs are molecular frameworks, built by rigid organic building blocks that are connected *via* strong yet reversible covalent bonds. A particularly intriguing structural property of 2D COFs is their defined, uniform and continuous channels, where guest molecules or particles can be embedded. The incorporation of transition metal nanoclusters into COF's channels can influence the electronic and photocatalytic properties of COFs.



We strive to investigate COF powders and films modified with metal nanoclusters aiming at correlating structural and photophysical COF characteristics with the photocatalytic activity performance for water reduction.

Therefore, we are offering an opportunity for a Master Thesis for a highly motivated student to develop and to investigate COF-based photoelectrodes modified with noble metal nanoparticles for photocatalysis and water reduction.

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