



Institut für Physik  
Institut für Chemie und Biotechnik



## INSTITUTSKOLLOQUIUM

Gemeinsames Kolloquium der Physik und Chemie

Am Dienstag, dem 9. Juli 2024, spricht um 17:15 Uhr im Faraday-Hörsaal,

*Jun.-Prof. Dr. Cui Wang*  
*Anorganische Chemie II, Universität Osnabrück*

zum Thema:

### **„Photoactive complexes based on first-row transition metals: from molecular design to applications“**

Abstract:

Recently, important fundamental understandings of photoactive first-row transition metal complexes have been gained. Rational molecular design has led to numerous photoactive 3d metal complexes featuring favorable photophysical and photochemical properties, making these coordination compounds as more sustainable alternatives to the noble metal complexes, particularly for energy-conversion based applications.

This talk will focus on molecular design strategies of new types of photoactive transition metal complexes (mainly based on 3d metals), and their investigation in optical sensing, photon upconversion as well as photocatalysis. Supported by steady-state and time-resolved transient absorption and luminescence spectroscopic studies, we can obtain mechanistic insights into the excited state reactivities of these photoactive metal complexes. Incorporation of these molecular chromophores into nanostructures make them more suitable for application-relevant environments.

Wir laden Sie zu diesem Kolloquium herzlich ein!

Die Hochschullehrer der Institute für Physik und Chemie