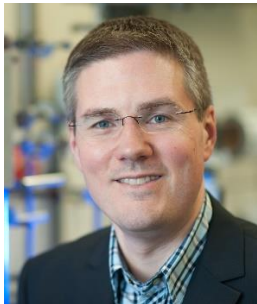


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**Research keywords:** Polyoxometalates; Composites; Energy Sonversion/Storage; Batteries; Photocatalysis; Ionic Liquids; Surface Coatings; Metal Oxide Nanostructures; Carbon Nanostructures

Our research is centred on developing new molecular polyoxometalate-based systems to address grand societal challenges. Our current main focus points are energy technologies and sustainability, particularly solar water splitting<sup>[1-3]</sup> and new battery technologies.<sup>[4,5]</sup> In addition, we develop solutions for current challenges such as corrosion protection<sup>[6,7]</sup> and water purification.<sup>[8]</sup> The unifying theme is our ambition to bridge the gap between molecular component design and technological materials development. Therefore, our group has built expertise in molecular and materials design, photo- and electrochemistry, catalysis and chemical engineering.

To develop our materials further, we are interested in finding collaboration partners in the fields of materials characterization and simulation, in operando performance characterization as well as new materials design based on functional heterogeneous systems.

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