

## Water Splitting Electrocatalysts for Clean Hydrogen Production

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Hydrogen generation from water splitting reaction is an ideal clean energy source yet it requires high energy input. In order to lower the water splitting energy requirement, the development of electrocatalysts plays an important role. At the anode, the oxygen evolution reaction (OER) takes place. The overpotential of this half reaction usually limits the overall water splitting efficiency. So, the development of a suitable catalyst for OER is crucial. We have successfully developed a series of highly active and stable amorphous metal oxide (FeO<sub>x</sub>, CoO<sub>x</sub>, MoO<sub>x</sub> and their binary and ternary mixture), mixed metal (ZnCoMn) hydroxide, and even ferric phosphate (FePi) electrocatalysts for OER. In this talk, the overall development of our (photo)electrocatalytic water splitting catalysts will be given as well as the status of our current projects.