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Title: Electrocatalysis for Hydrogen Production: Catalyst Design Strategies Based on Activity Descriptors

Abstract: Green hydrogen production via water electrolysis has attracted significant attention. However, achieving highly efficient water electrolysis critically depends on improving the activity of electrocatalysts, and reliable rational design strategies for promising catalyst materials are essential. In this seminar talk, we highlight our recent efforts in the development of inexpensive nonprecious metal-based electrocatalysts for water electrolysis. Through the seminar talk, reliable and easily available descriptors for the OER are proposed, and their mechanisms of determining OER activity are explained.