

MoS₂ Quantum Dots modified MXene Nanoflowers for Efficient Electrocatalytic Hydrogen Evolution Reaction in Acidic Medium

Savan K Raj^{1#}, Vartika Sharma^{1,2#}, Shubham Mishra^{1,2}, Vaibhav Kulshrestha^{1,2 *}

¹CSIR-Central Salt and Marine Chemicals Research Institute, Gijubhai Badheka Marg,
Bhavnagar 364002, India

² Academy of Scientific and Innovative Research (AcSIR), Ghaziabad-201002, India

* Email: vaibhavphy@gmail.com; vaibhavk@csmcri.res.in

Contributed Equally

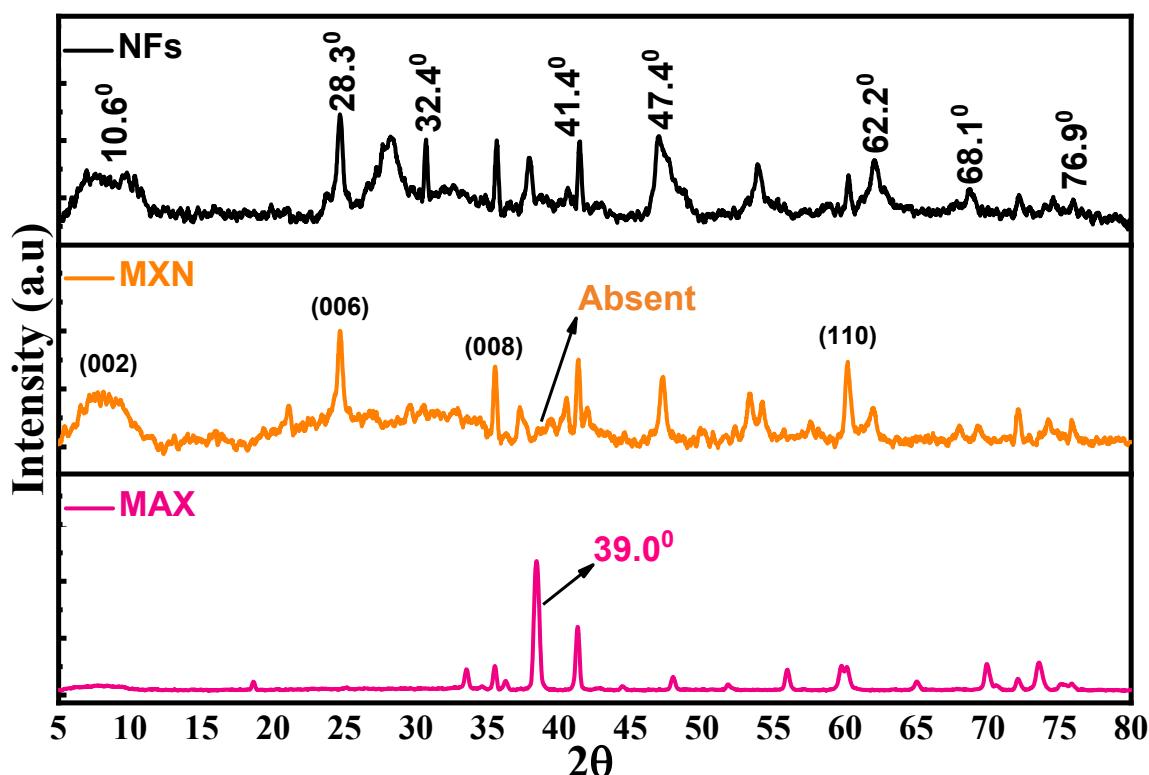


Figure S1. XRD spectra of MAX, MXN and NFs

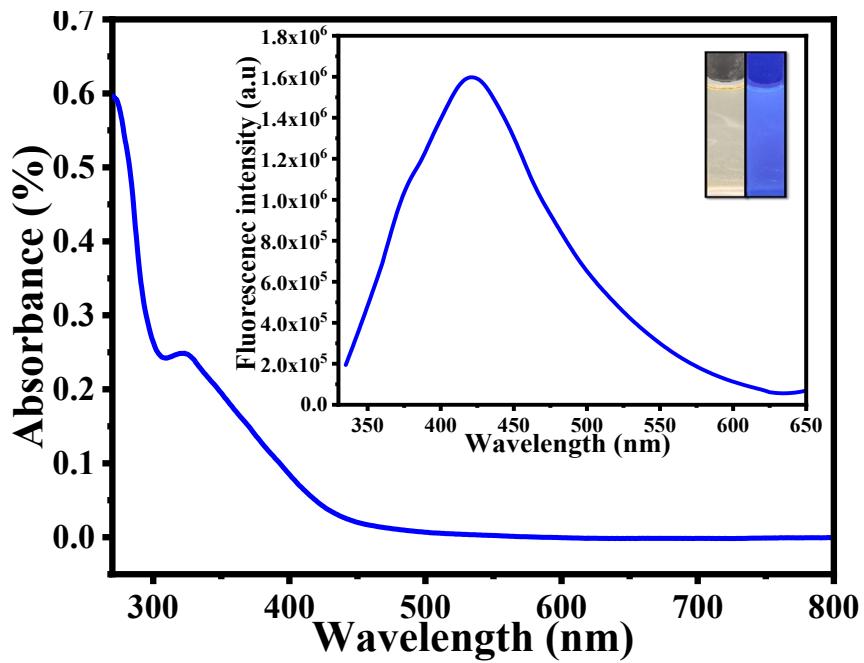


Figure S2. UV-Visible spectra for MQDs and inset image reveals the fluorescence intensity.
Inset image shows the blue fluorescence in 355 nm UV chamber

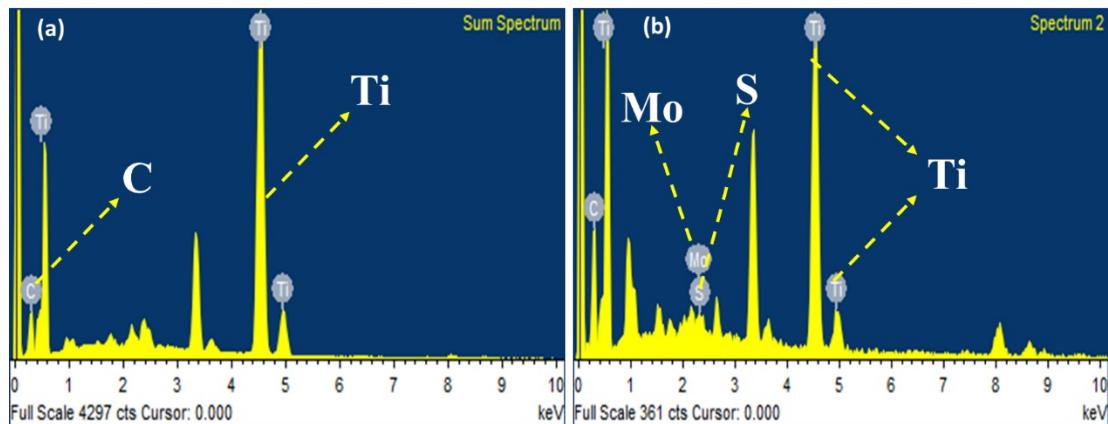


Figure S3. Composition of elements in (a) NFs and (b) MQD@NFs

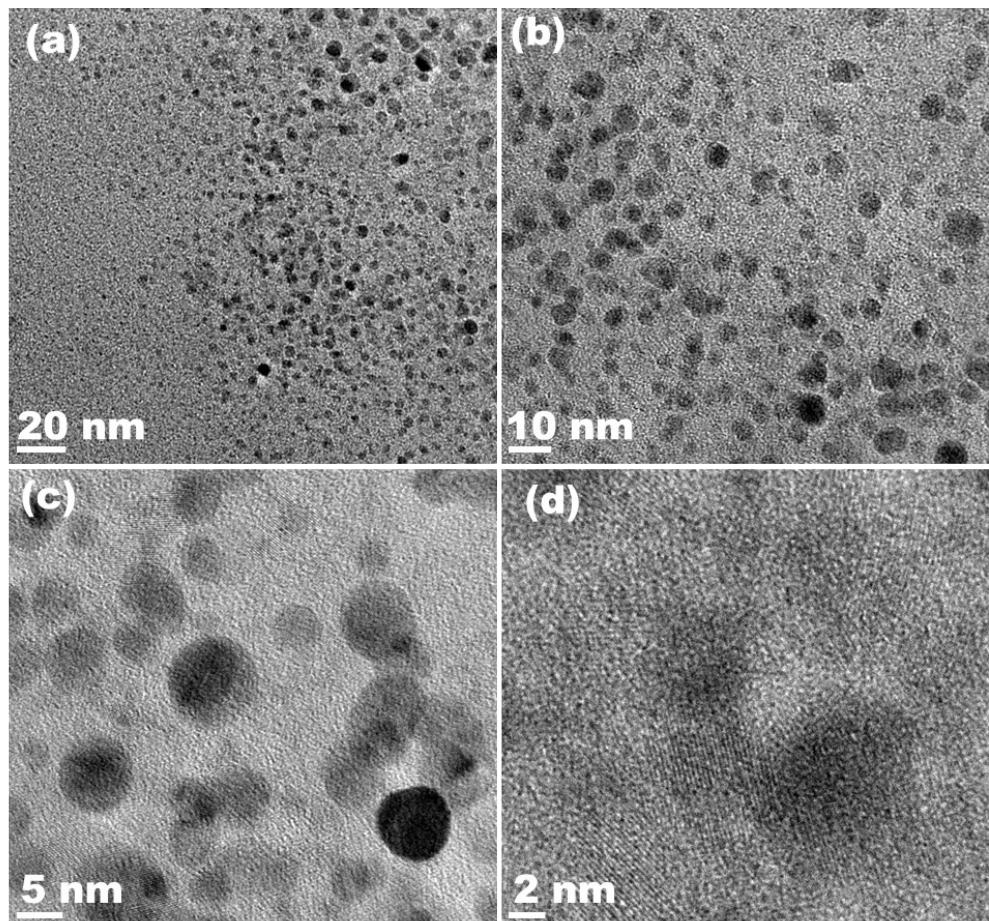


Figure S4. HR-TEM of MQDs

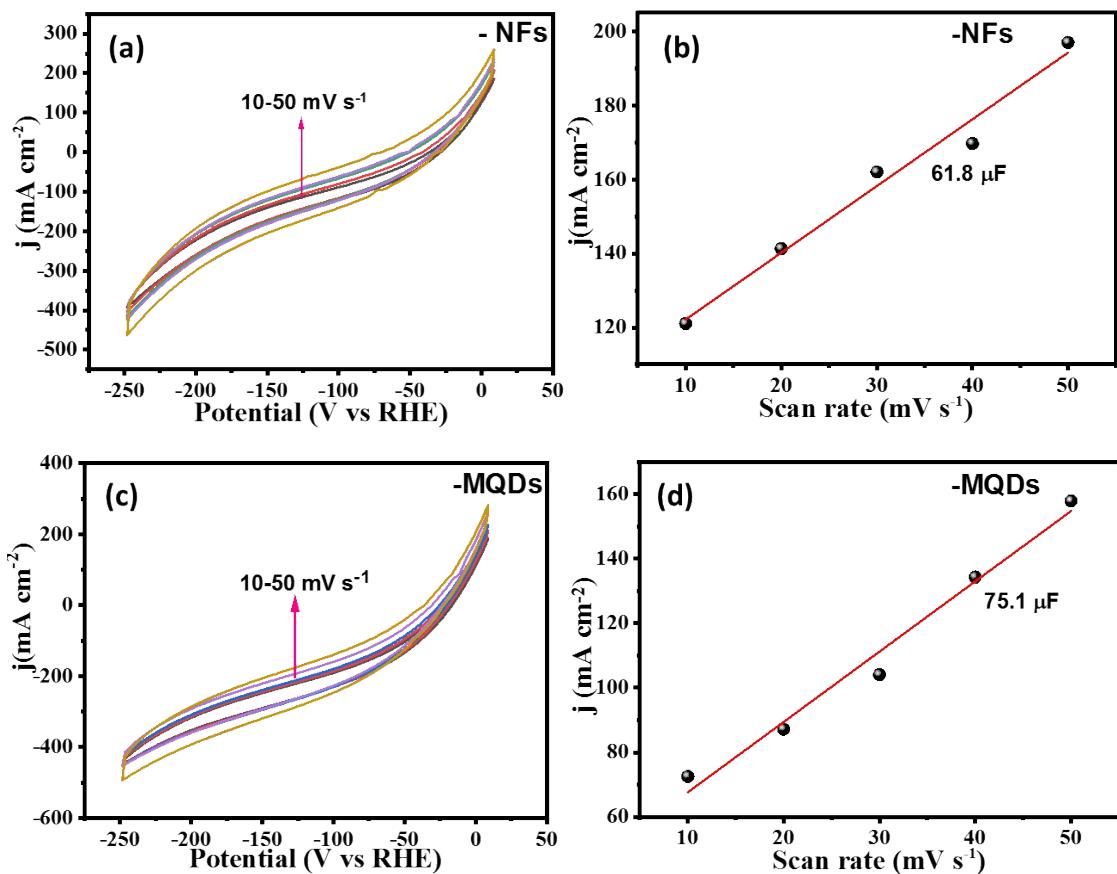


Figure S5. ECSA and linear plot for NFs and MQDs

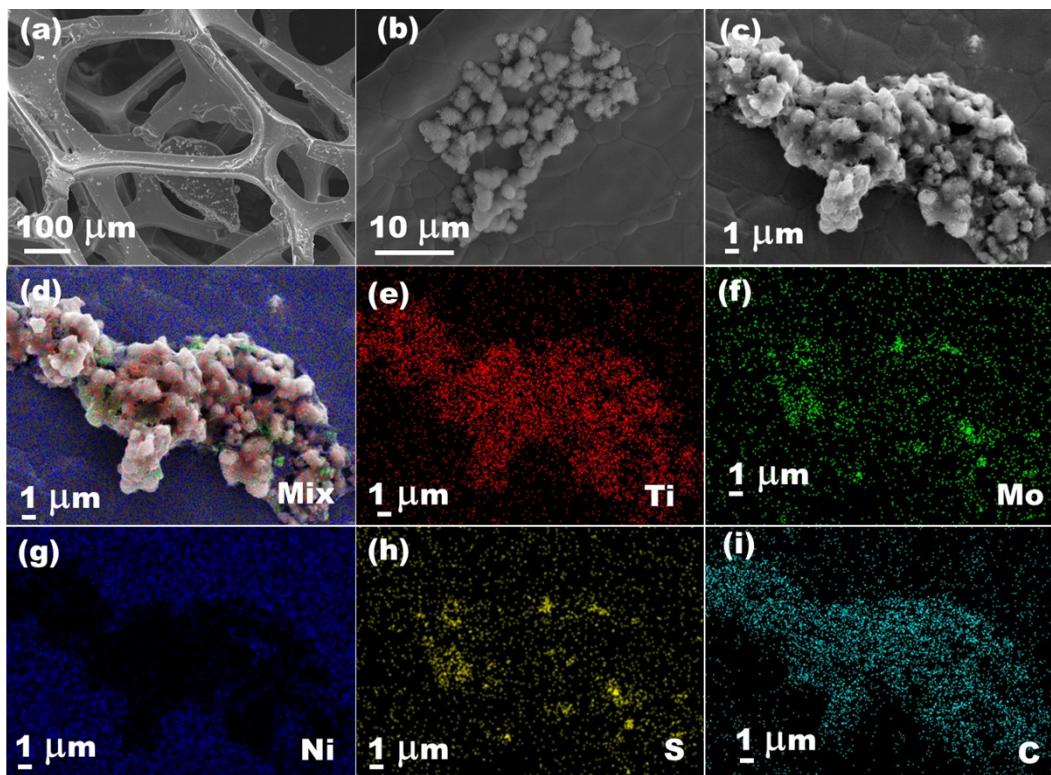


Figure S6. SEM images of the electrocatalyst loaded on the Ni foam after HER