

Supporting Information

Synergistic Effect of Co-Ni Co-Bridging with MoS₂ Nanosheets for Enhanced Electrocatalytic Hydrogen Evolution Reactions

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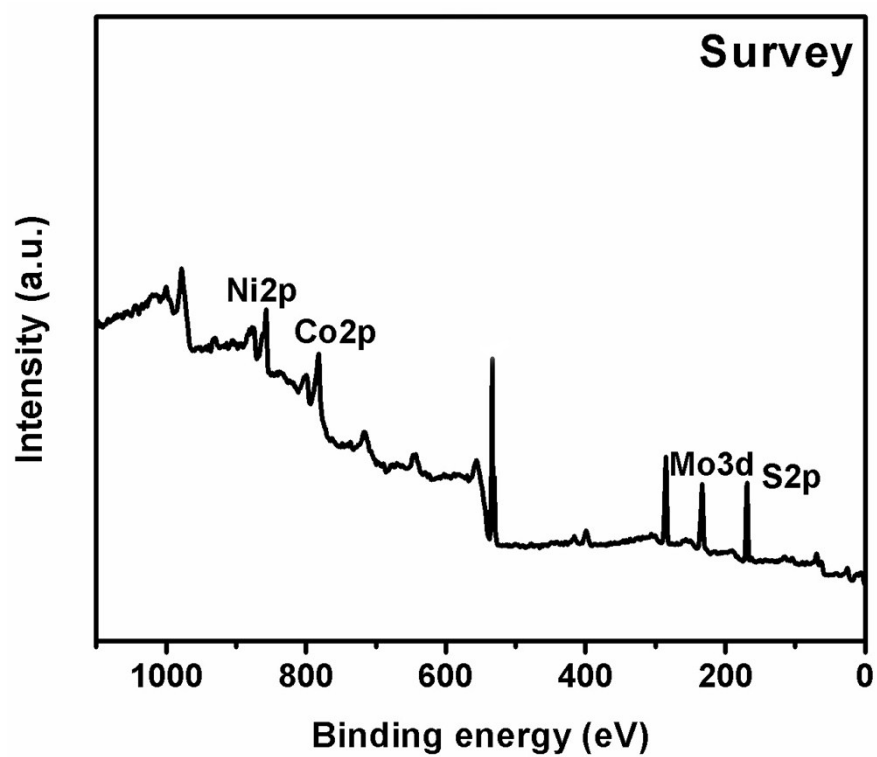


Figure S1. Survey XPS spectrum of Co-Ni/MoS₂ nanocomposite.

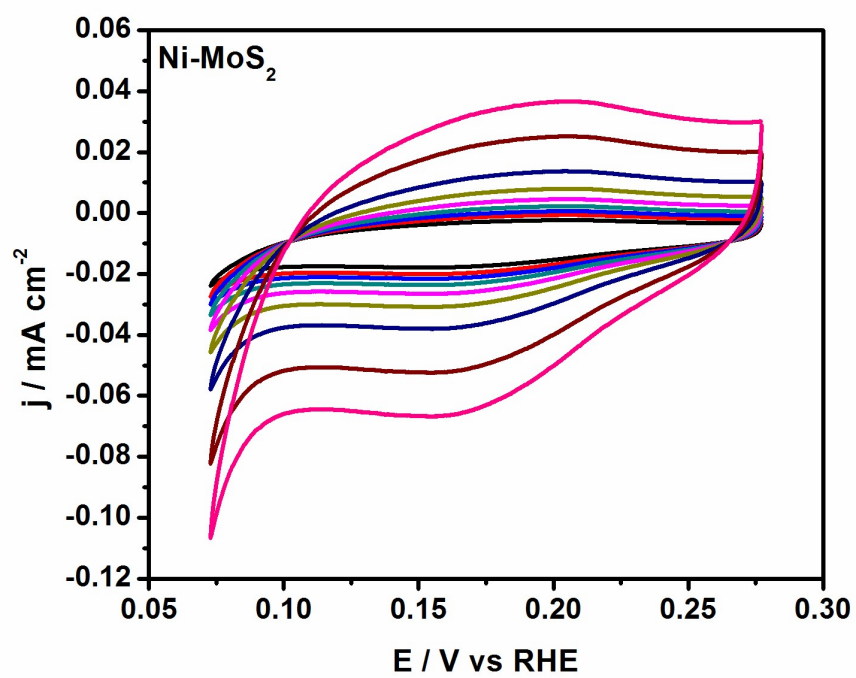


Figure S2: The cyclic voltammetry at various scan rates for Ni-MoS₂ catalyst.

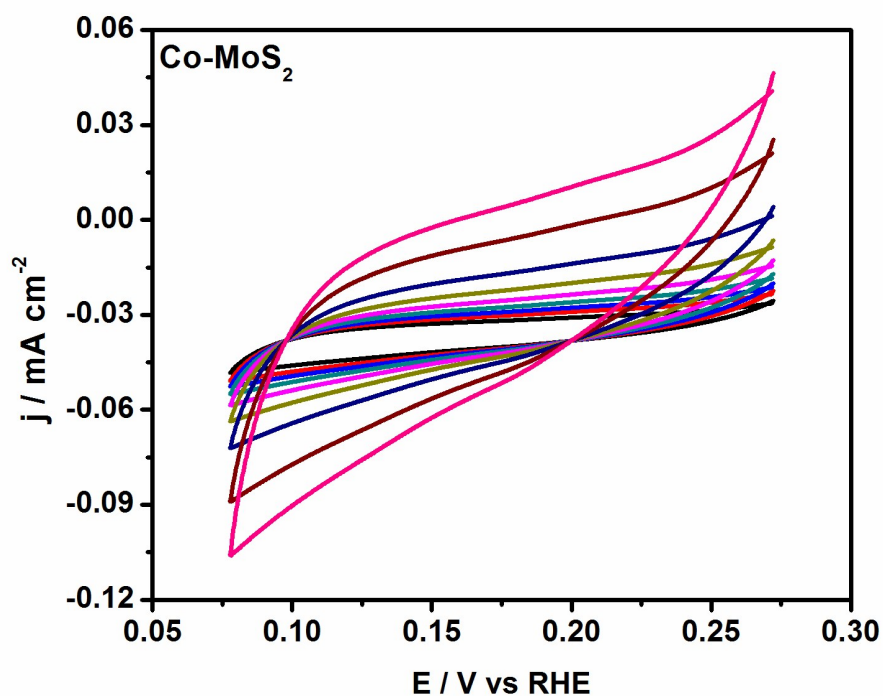


Figure S3: The cyclic voltammetry at various scan rates for Co-MoS₂ catalyst.

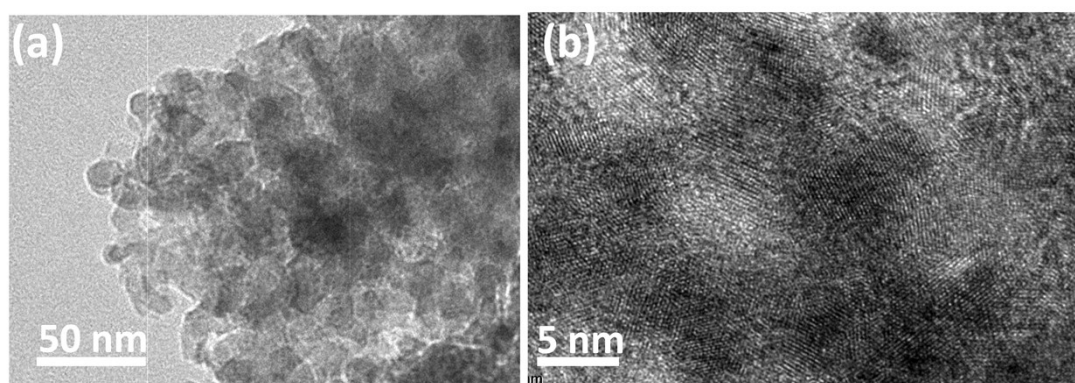


Figure S4. TEM images after accelerated durability test (ADT) for 2000 cycles.

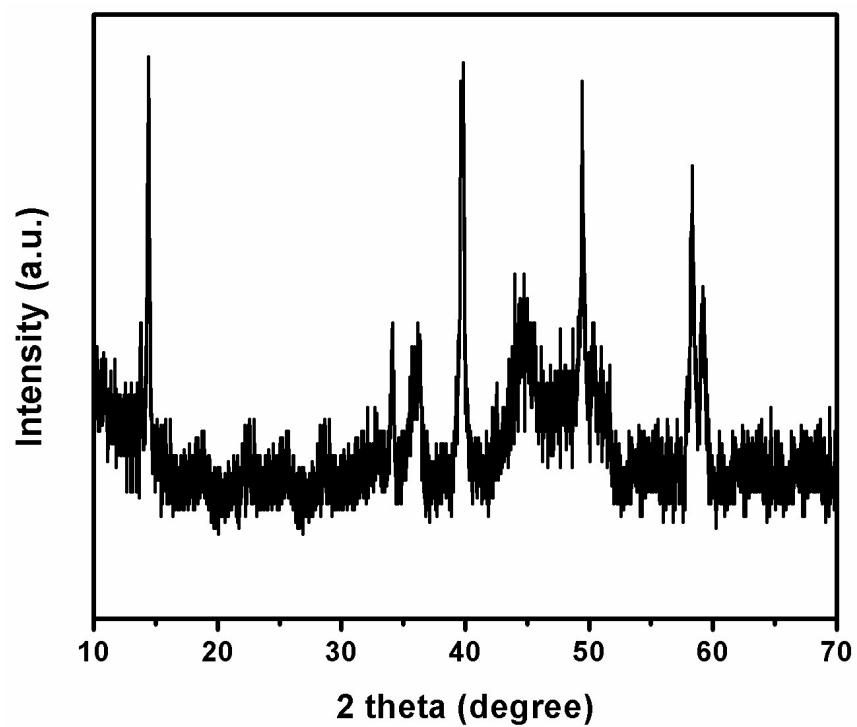


Figure S5. XRD pattern of Co-Ni/MoS₂ nanocomposite after accelerated durability test (ADT) for 2000 cycles.

Table S1: Calculated parameters of HER performance for all the catalysts.

Sr. no.	catalyst	overpotential (mV)	current density (j = mA cm ⁻²)	Tafel slope (mV/decay)
01	MoS ₂	210	21	106
02	Ni- MoS ₂	80	66	62
03	Co-MoS ₂	75	73	58
04	Ni-Co-MoS ₂	45	92	49