

Supporting Information

Mn-doped WSe₂ as an efficient electrocatalyst for hydrogen production and as anode material for lithium-ion batteries

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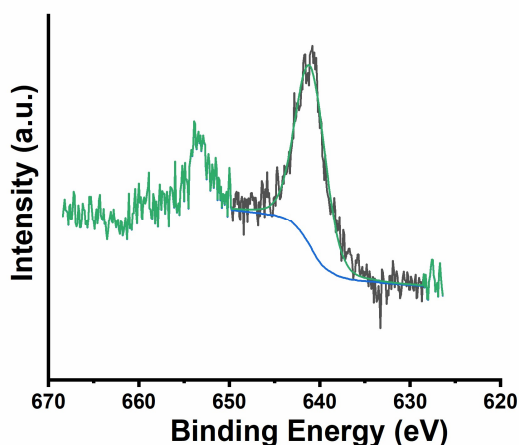


Figure S1. Deconvoluted X-ray photoelectron spectra of Mn 2p for Mn-WSe₂.

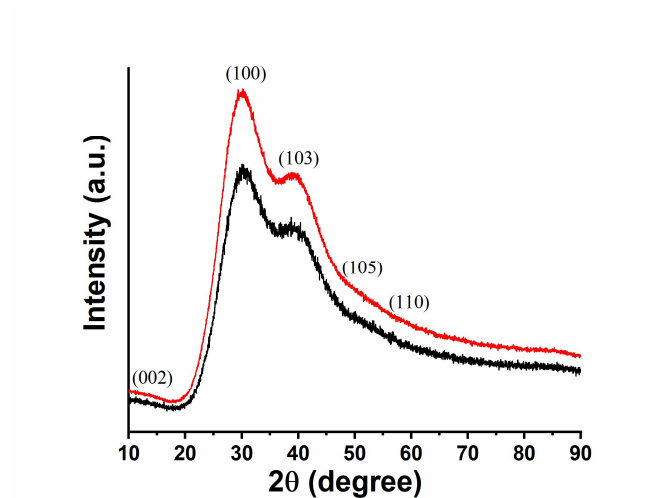


Figure S2. XRD pattern of WSe₂ and Mn-WSe₂.

Table S1. Electrocatalytic HER parameters in H₂SO₄ (0.5 M) for all tested materials.

Material	Onset potential (V vs RHE)	Potential (V vs RHE) at -10 mA cm ⁻²	Tafel slope [mV dec ⁻¹]	Rct [Ω]
Mn-WSe ₂	-0.077	-0.28	80	46
Mn-WSe ₂ ^{a)}	-0.077	-0.32	99	-
WSe ₂	-0.27	-0.43	153	299
WSe ₂ ^{a)}	-0.31	-0.51	146	-
Pt/C	-0.017	-0.060	45	42

a) after 10 000 cycles

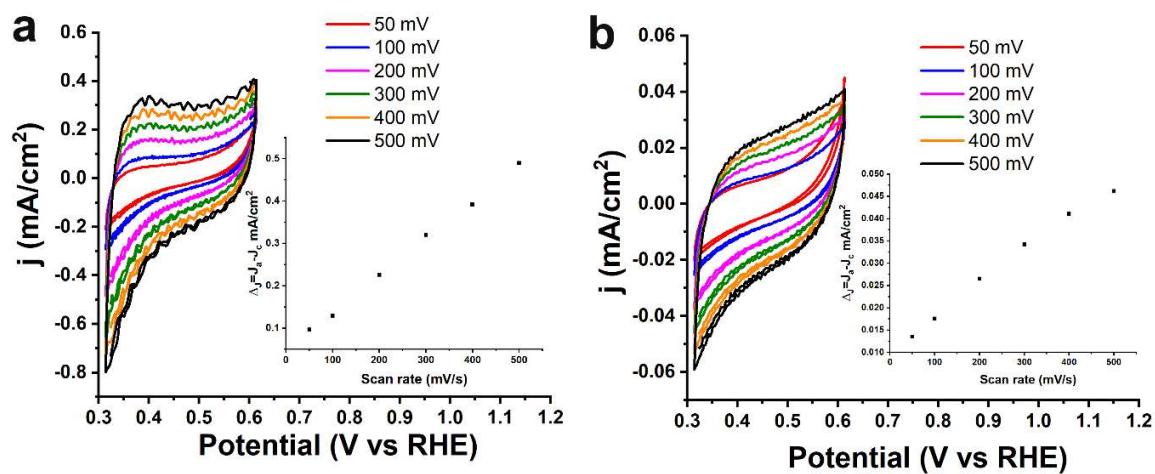


Figure S3. Cyclic voltamographs of (a) Mn-WSe₂ and (b) WSe₂ in a nitrogen saturated aqueous 0.5 M H₂SO₄ electrolyte, at a rotation speed of 1,600 rpm and scan rates from 50 to 500 mV/s. Inset: Scan rate dependence of the current densities for the corresponding materials.