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In-situ growth of Prussian blue analogues derived Fe-doped NiS on $Ni(OH)_2$ for efficient hydrogen evolution reaction

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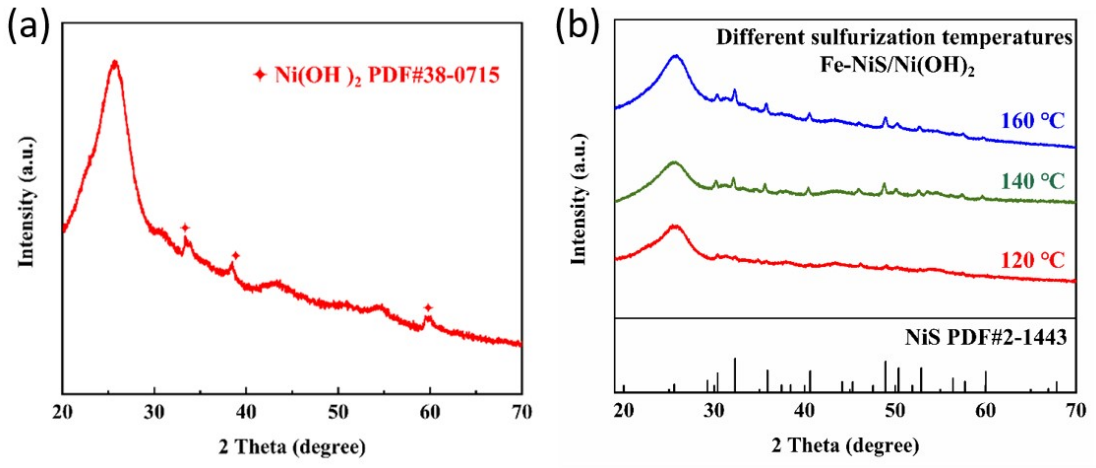

Fig. S1. (a) XRD patterns of $NiS/Ni(OH)_2$/CC. (b) XRD patterns of Fe-$NiS/Ni(OH)_2$/CC with different sulfurization temperatures.

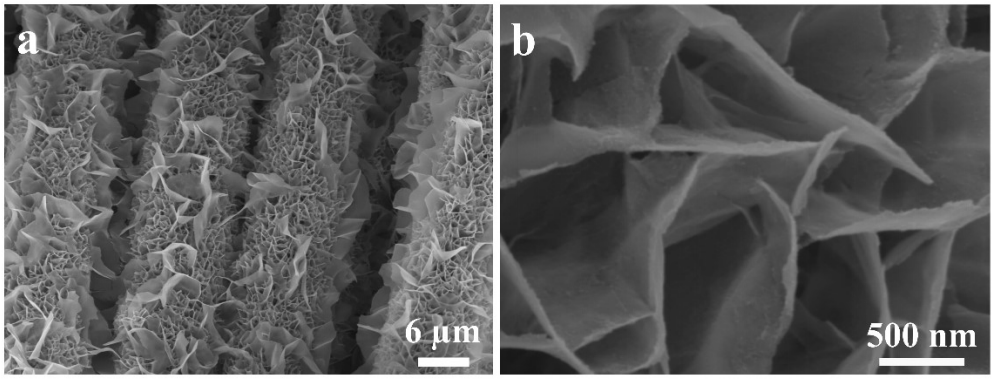

Fig. S2. SEM image of (a, b) NiS/$Ni(OH)_2$/CC.

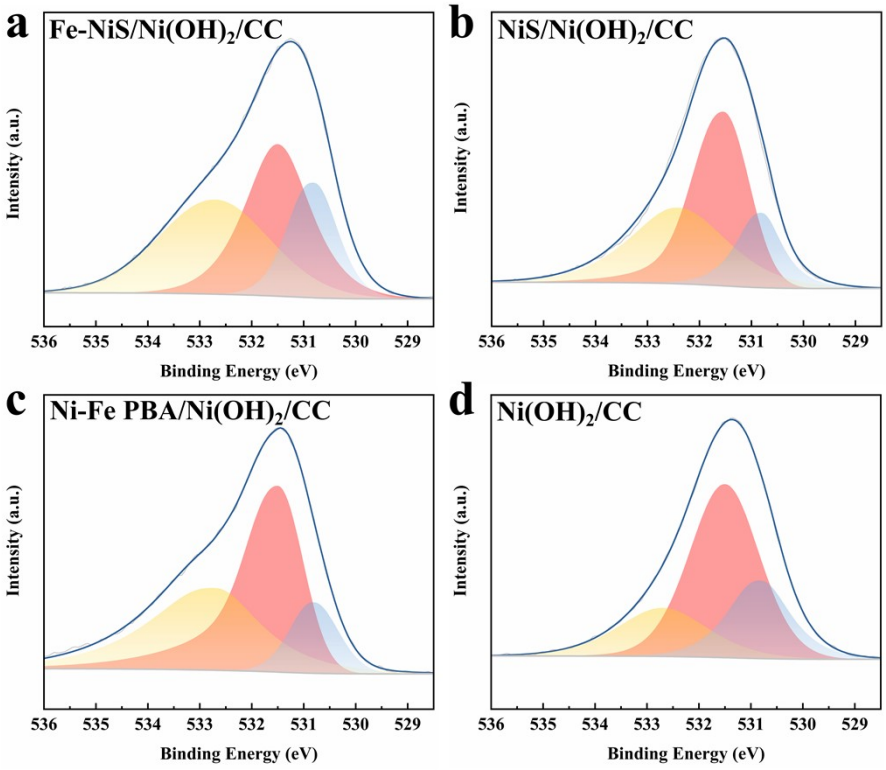

Fig. S3. High-resolution XPS spectra of O 1s (a) Fe-NiS/$Ni(OH)_2$/CC; (b)NiS/$Ni(OH)_2$/CC; (c) Ni-Fe PBA/$Ni(OH)_2$/CC; (d) $Ni(OH)_2$/CC.

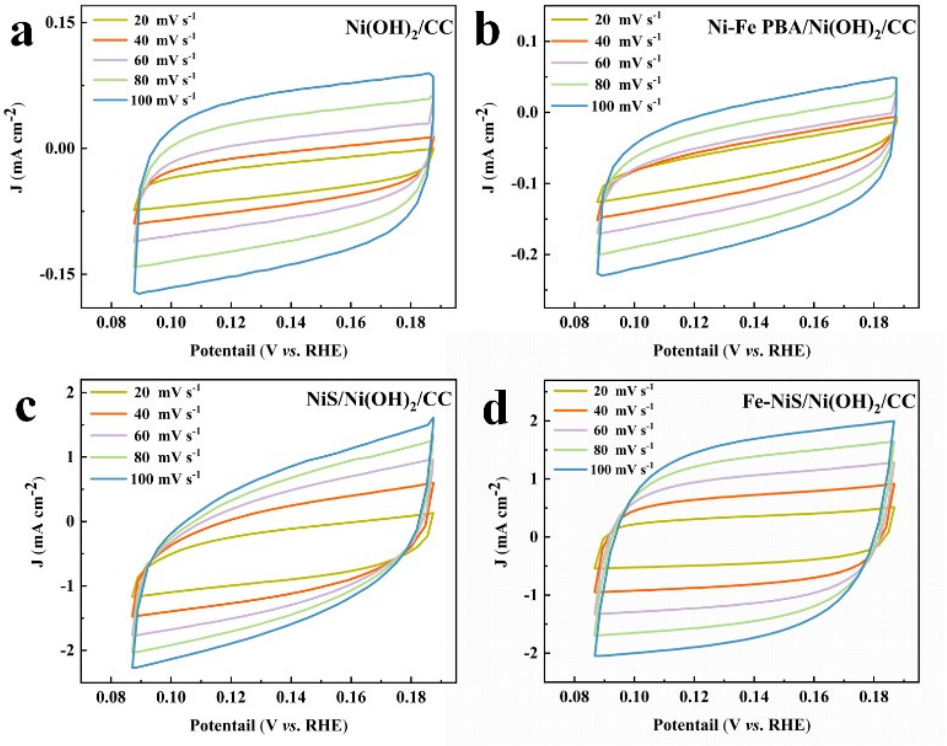

Fig. S4. CVs curves of (a) $Ni(OH)_2$/CC ; (b) Ni-Fe PBA/$Ni(OH)_2$/CC; (c) NiS/$Ni(OH)_2$/CC; (c) Fe-NiS/$Ni(OH)_2$/CC in 1.0 M KOH solution at different scan rates.

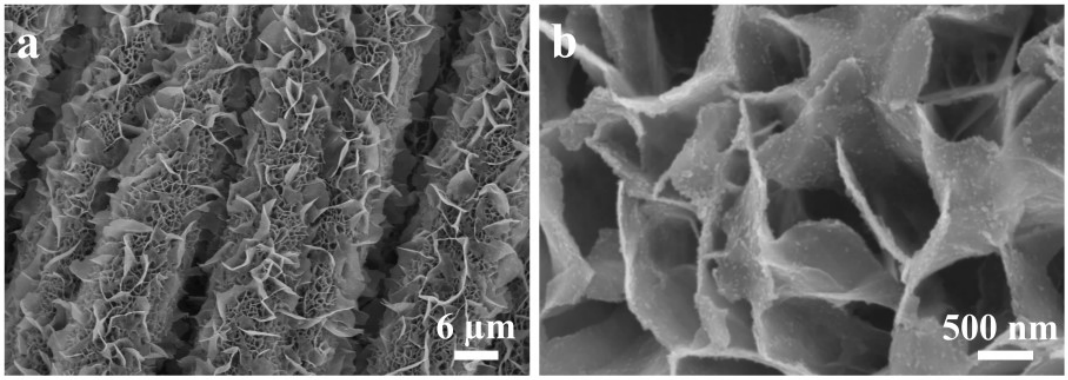

Fig. S5. SEM image of (a, b) Fe-NiS/$Ni(OH)_2$/CC after long-term stability test.

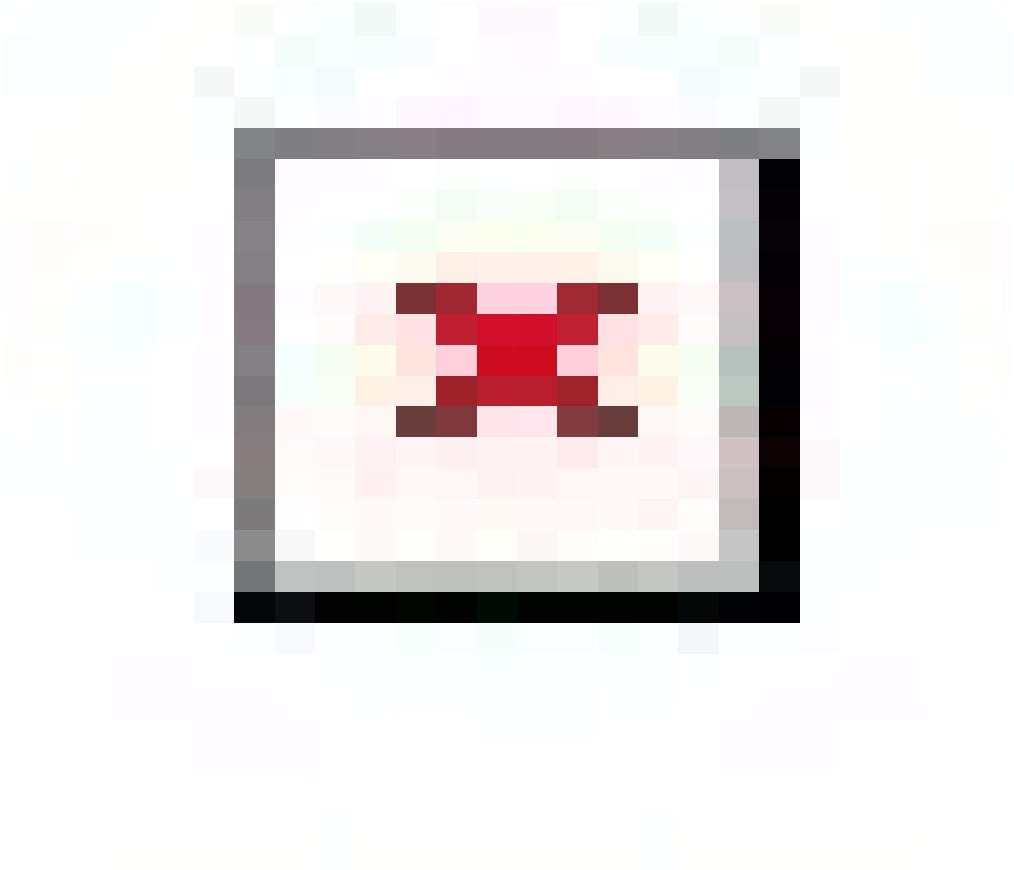

Fig. S6. XRD image of Fe-NiS/Ni(OH)$_2$/CC after long-term stability test.