

Supplementary Information

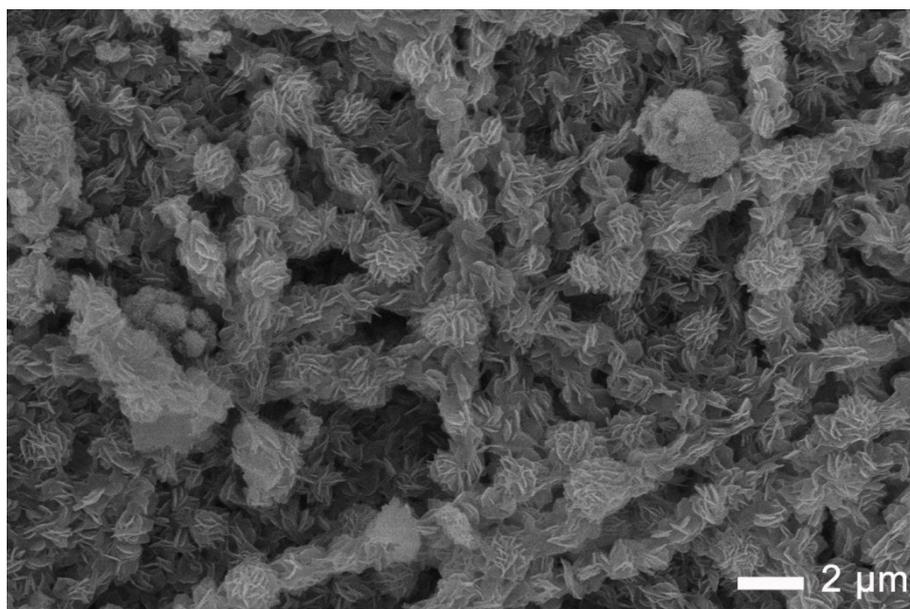


Fig. S1. SEM image of PPNF@MOF

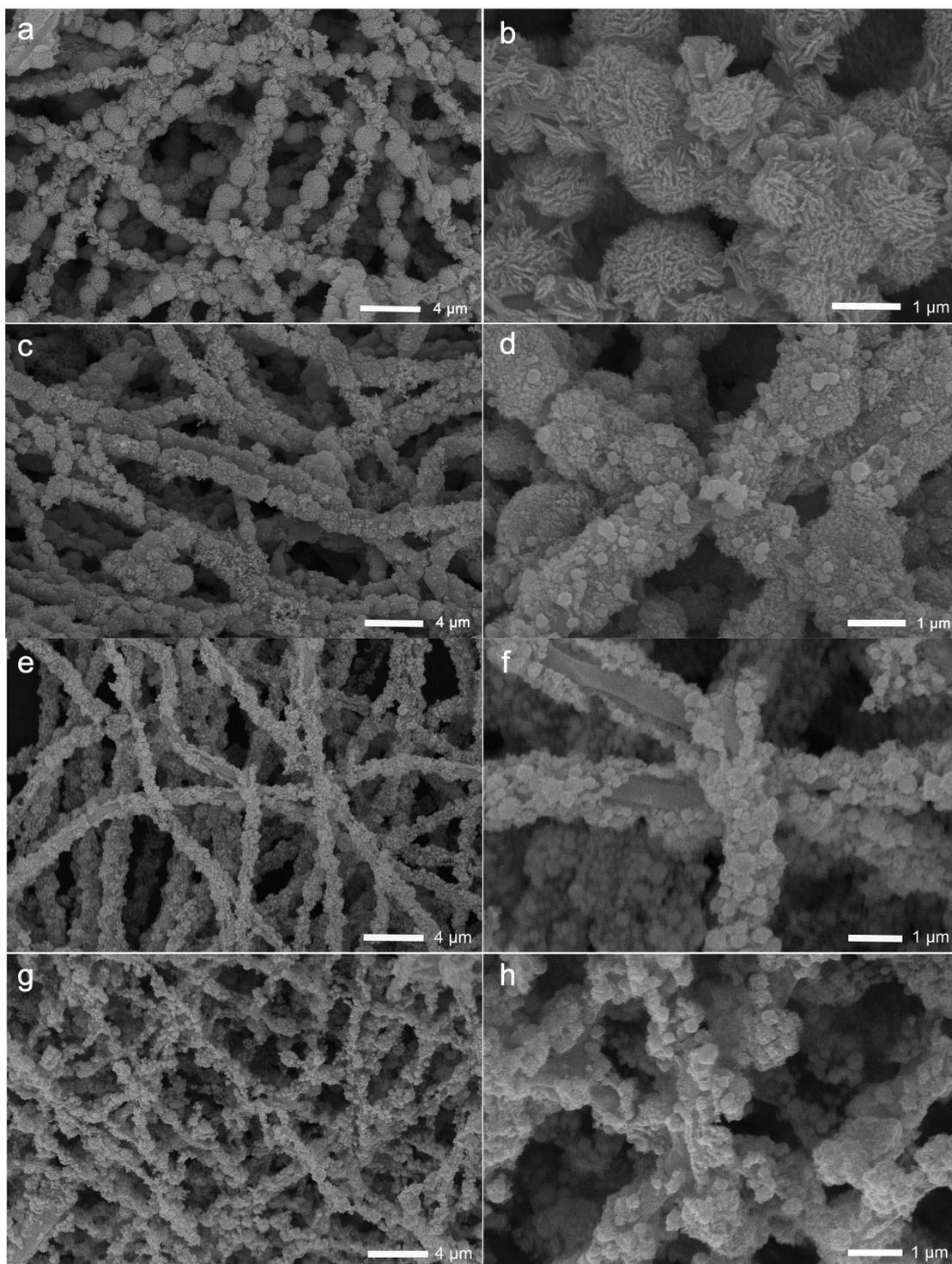


Fig. S2. SEM images of (a, b) Ni/CNFs-500, (c, d) Ni/Ni₃S₂/CNFs-500, (e, f) Ni/CNFs-900, and (g, h) Ni/Ni₃S₂/CNFs-900 with different magnifications.

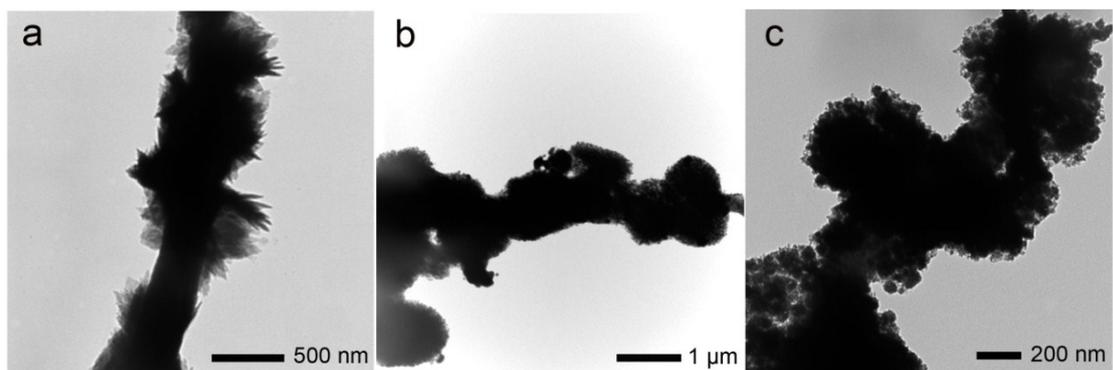


Fig. S3. SEM images of (a) PPNF@MOF, (b) Ni/CNFs-700, and (c) Ni/Ni₃S₂/CNFs-700.

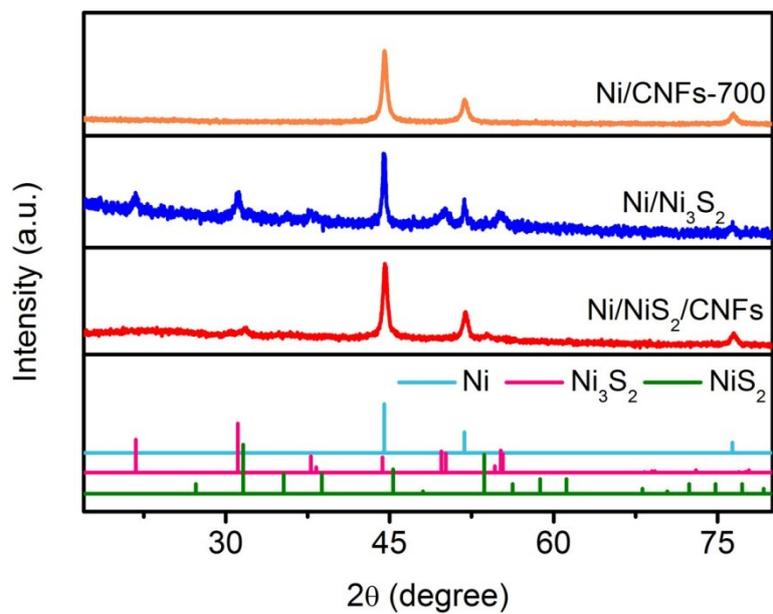


Fig. S4. XRD patterns of Ni/CNFs-700, MOF derived Ni/Ni₃S₂, and not-MOF derived Ni/NiS₂/CNFs samples.

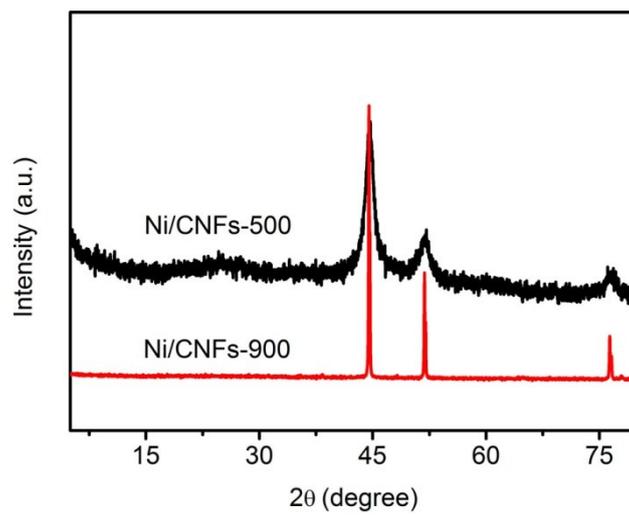


Fig. S5. XRD patterns of Ni/CNFs-500 and Ni/CNFs-900 samples.

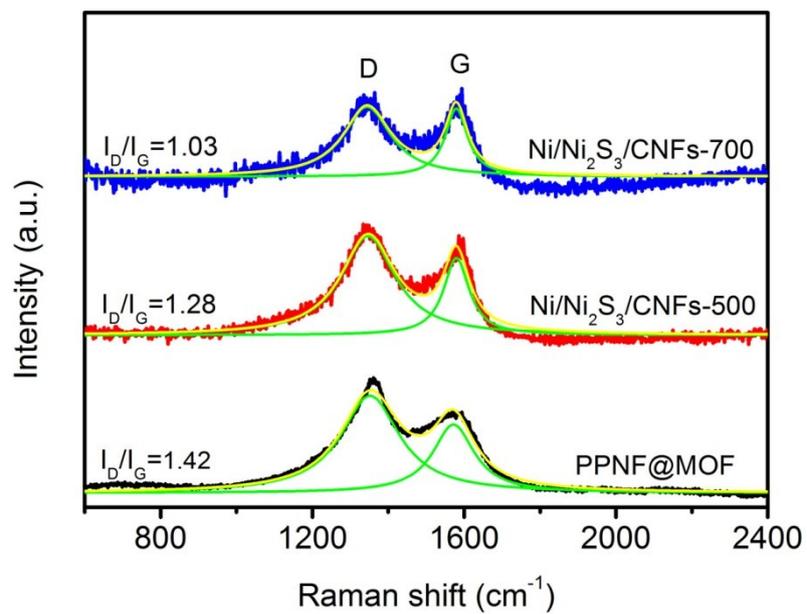


Fig. S6. Raman spectra of Ni/Ni₃S₂/CNFs-700, Ni/Ni₃S₂/CNFs-500, and PPNF@MOF samples.

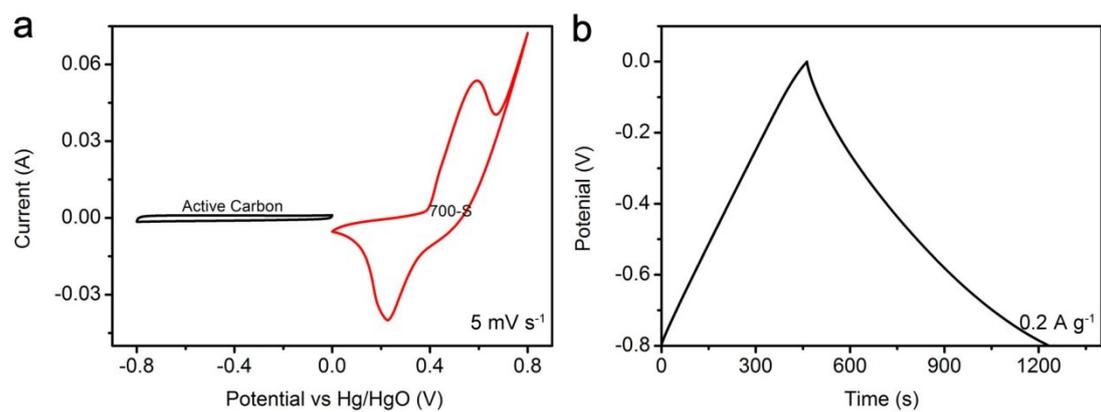


Fig. S7. (a) CV curves of active carbon and Ni/Ni₃S₂/CNFs-700 electrode at 5 mV s⁻¹, (b) GCD curves of active carbon electrode at 0.2 A g⁻¹.