

## Electronic Supplementary Information

### Novel $\text{FeNi}_2\text{S}_4$ /TMDs-based Ternary Composites for Supercapacitor Applications

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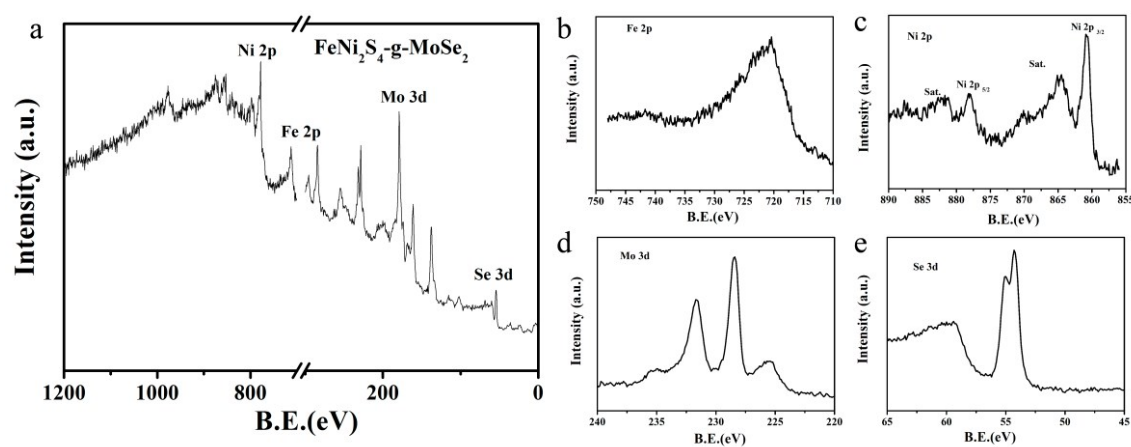


Figure S1. XPS survey spectrum of  $\text{FeNi}_2\text{S}_4$ -g- $\text{MoSe}_2$  (a). High-resolution XPS spectra of the Fe 2p (b), Ni 2p (c), Mo 3d (d) and Se 3d (e) of  $\text{FeNi}_2\text{S}_4$ -g- $\text{MoSe}_2$ .

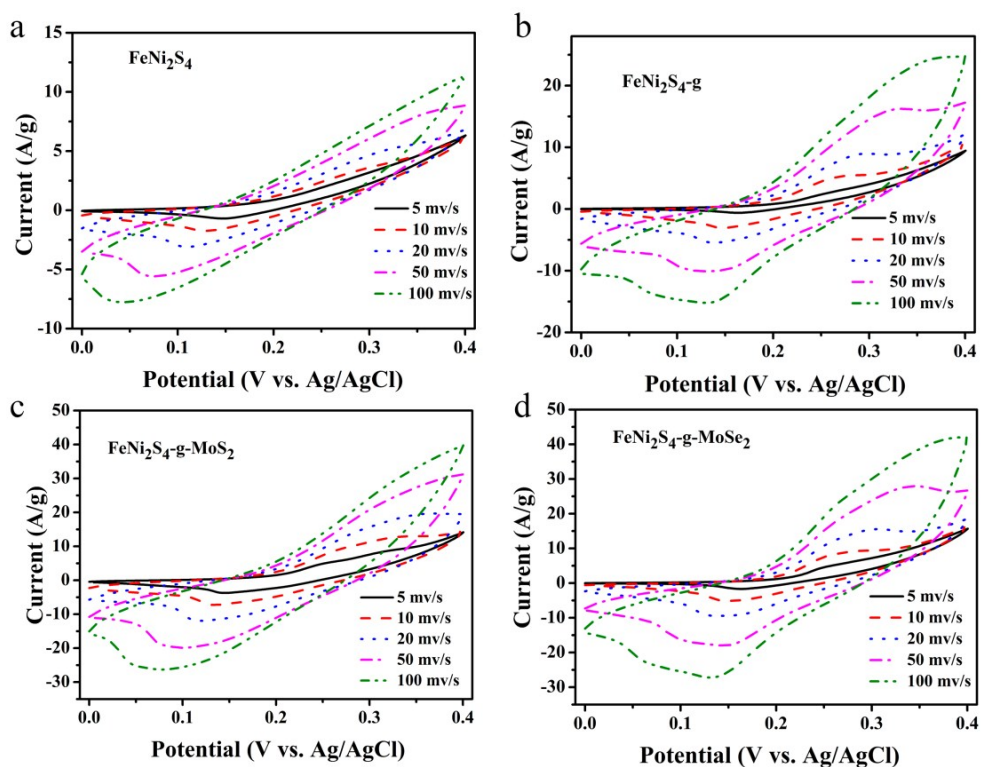


Figure S2. CV curves of  $\text{FeNi}_2\text{S}_4$ ,  $\text{FeNi}_2\text{S}_4\text{-g}$ ,  $\text{FeNi}_2\text{S}_4\text{-g-MoS}_2$  and  $\text{FeNi}_2\text{S}_4\text{-g-MoSe}_2$  at different scanning rates.

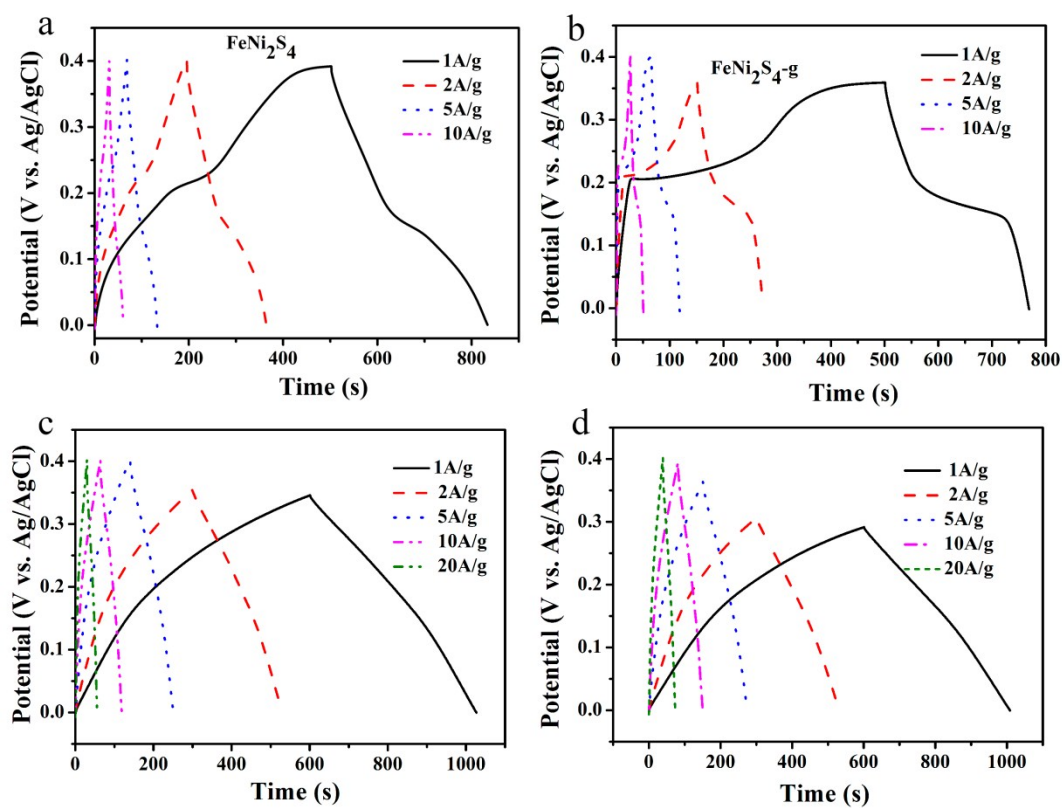


Figure S3. GCD curves of  $\text{FeNi}_2\text{S}_4$ ,  $\text{FeNi}_2\text{S}_4\text{-g}$ ,  $\text{FeNi}_2\text{S}_4\text{-g-MoS}_2$ , and  $\text{FeNi}_2\text{S}_4\text{-g-MoSe}_2$  at different current densities.

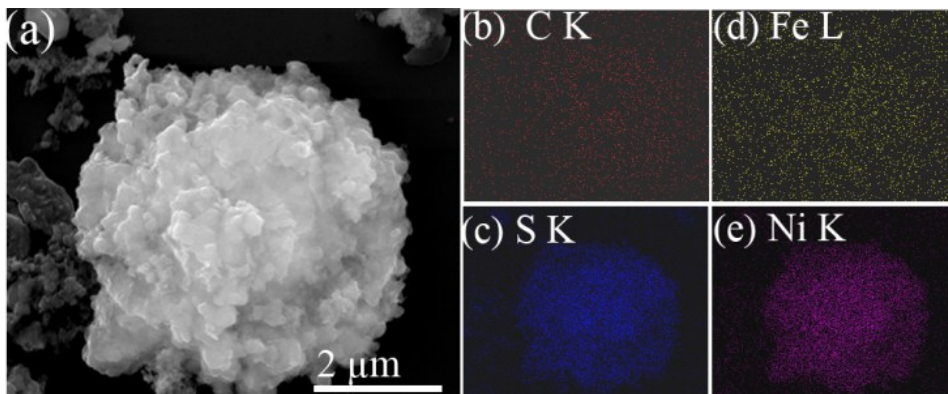


Figure S4. SEM-EDX mapping of FeNi<sub>2</sub>S<sub>4</sub>-g.

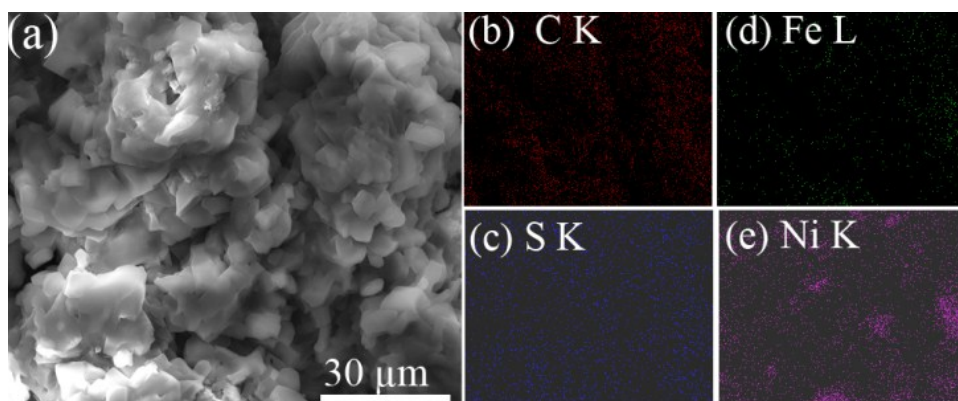


Figure S5. SEM-EDX mapping of FeNi<sub>2</sub>S<sub>4</sub>-g after cycling test.