

Supporting Information

Multifunctional Ni-doped iron pyrite/reduced graphene oxide composite as an efficient counter electrode for DSSCs and a non-enzymatic hydrogen peroxide electrochemical sensor

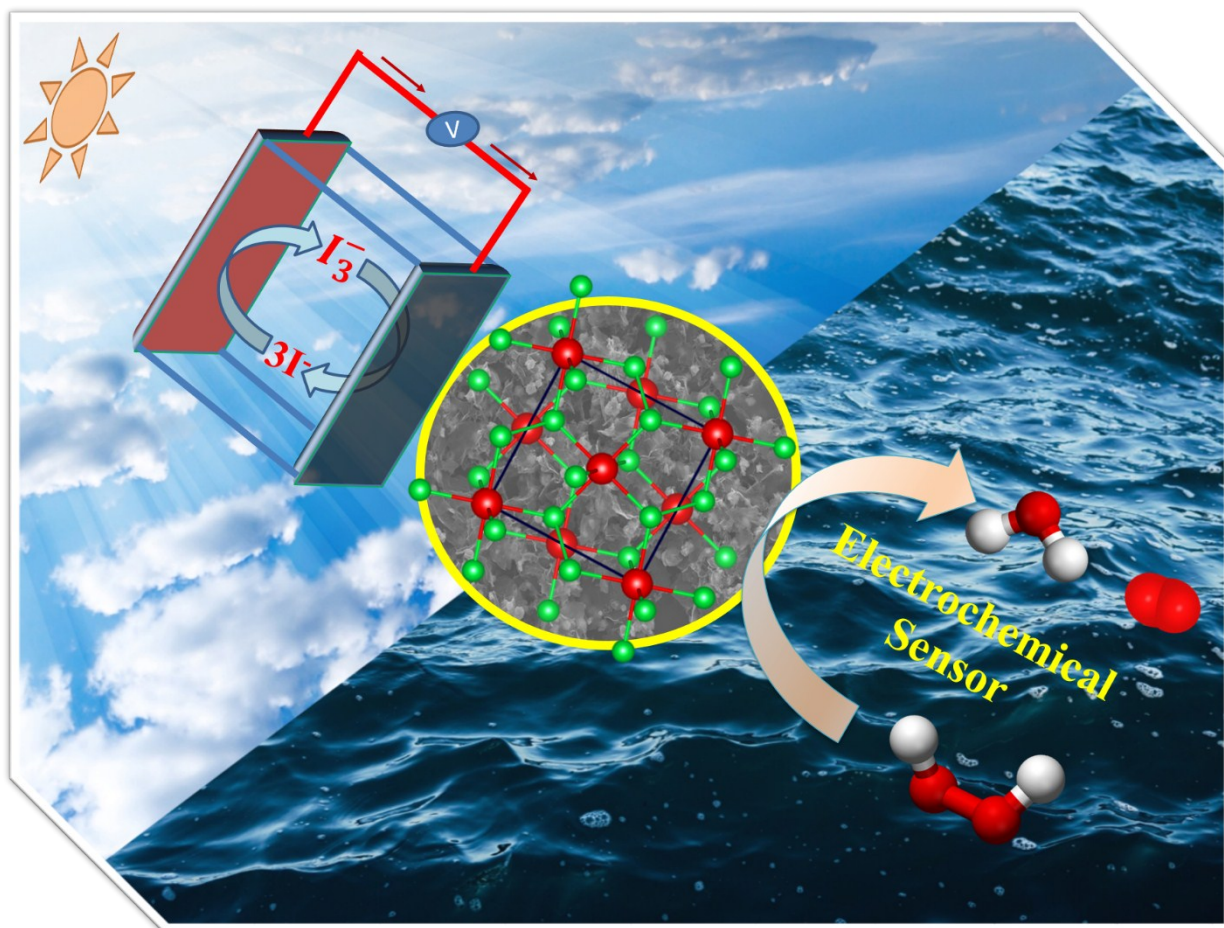
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XRD pattern of Graphene Oxide

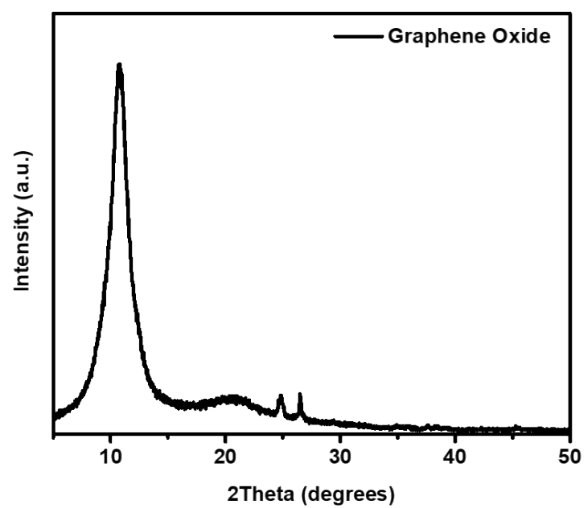


Fig. S1. XRD patterns of synthesized graphene oxide.

Raman and Fourier transform infrared spectrum of NFG-2 composite

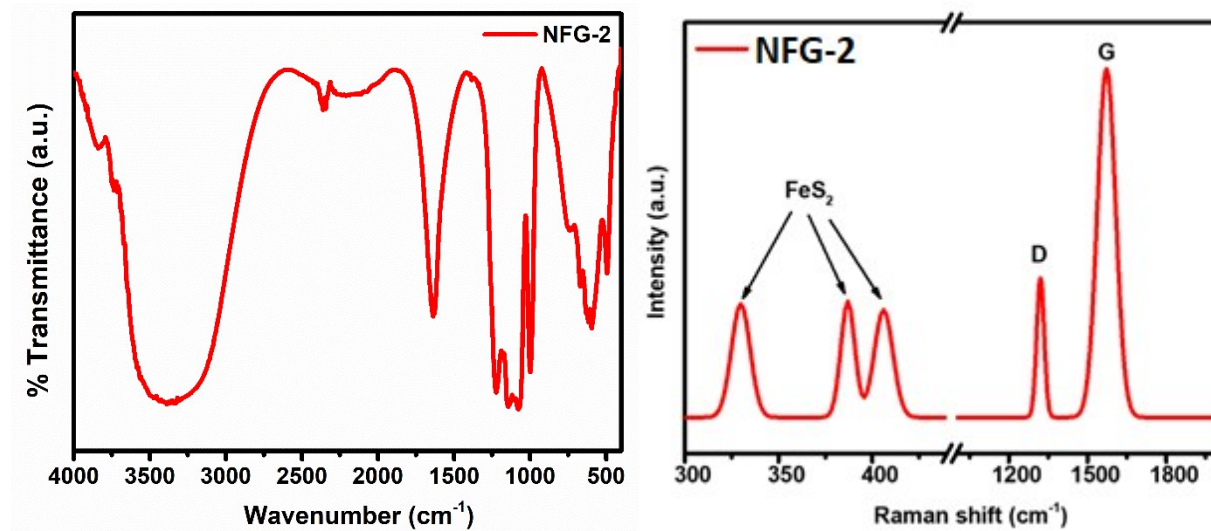


Fig. S2. (a) Fourier transform infrared spectrum and (b) Raman spectrum of NFG-2 composite.

FESEM images of NFG-2 composite

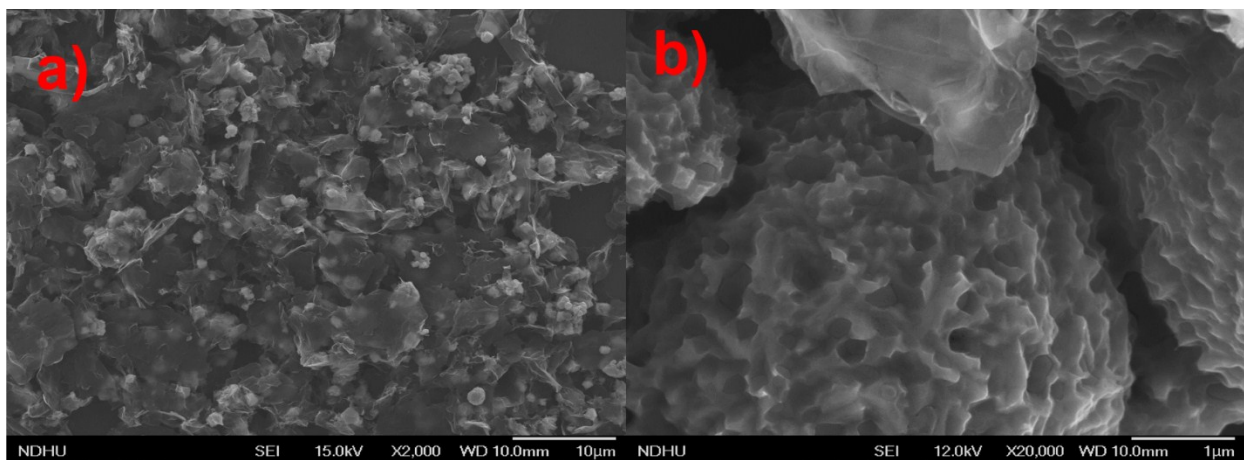


Fig. S3. Morphology of NFG-2 composite with various magnifications: (a) X2,000; (b) X20,000.

FESEM-EDS mapping of NFG-2 composite

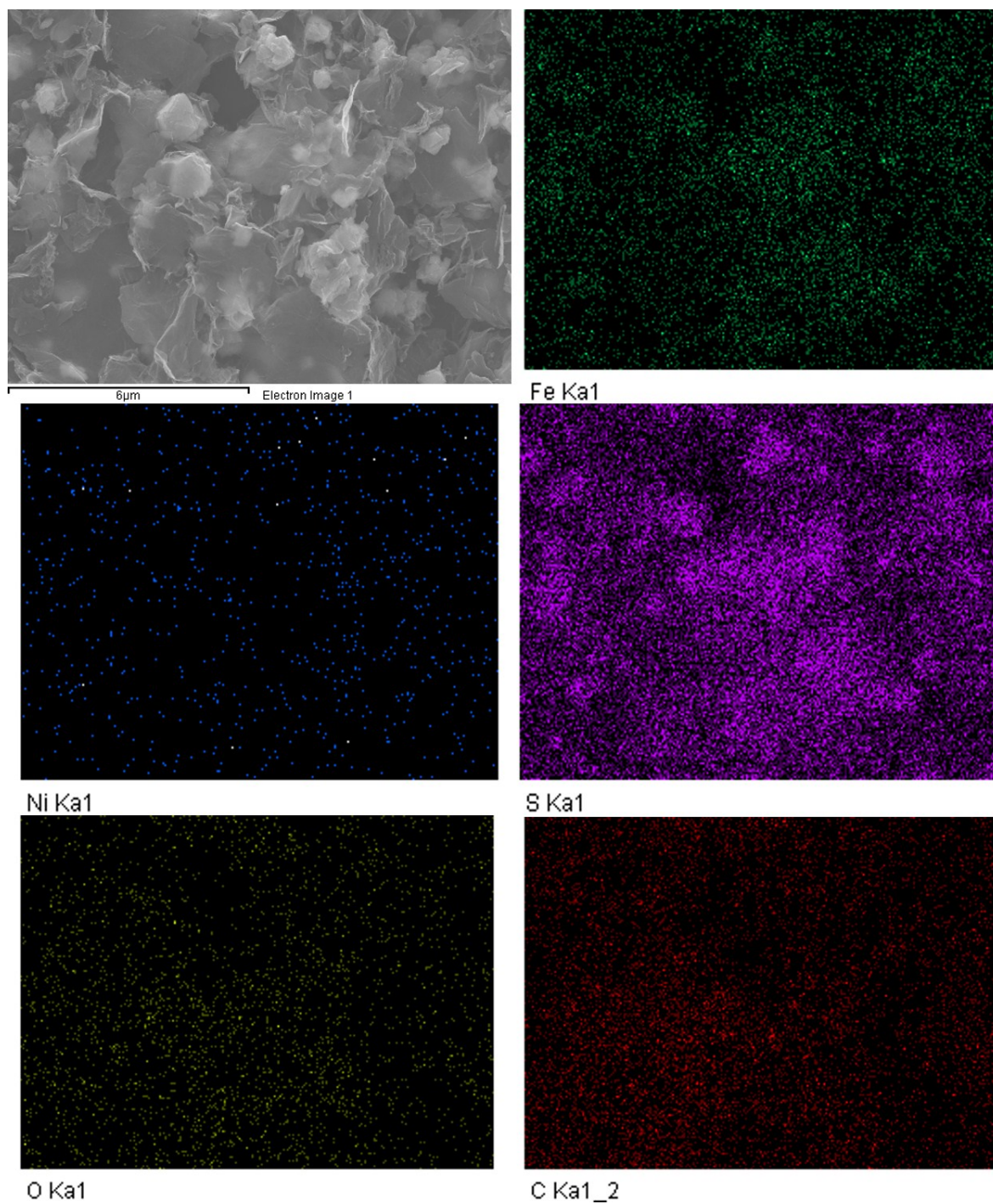


Fig. S4. FESEM-EDS mapping of NFG-2 composite.

Table S1: Elemental composition of NFG-2 composite obtained by EDS spectrum

| Element | Weight% | Atomic% |
|---------|---------|---------|
| C K | 47.78 | 71.95 |
| O K | 6.61 | 7.47 |
| S K | 24.29 | 13.70 |
| Fe K | 19.61 | 6.35 |
| Ni K | 1.72 | 0.53 |
| Totals | 100.00 | 100.00 |

Linear relation of current density shifts vs the scan rate for NFG-2 composite

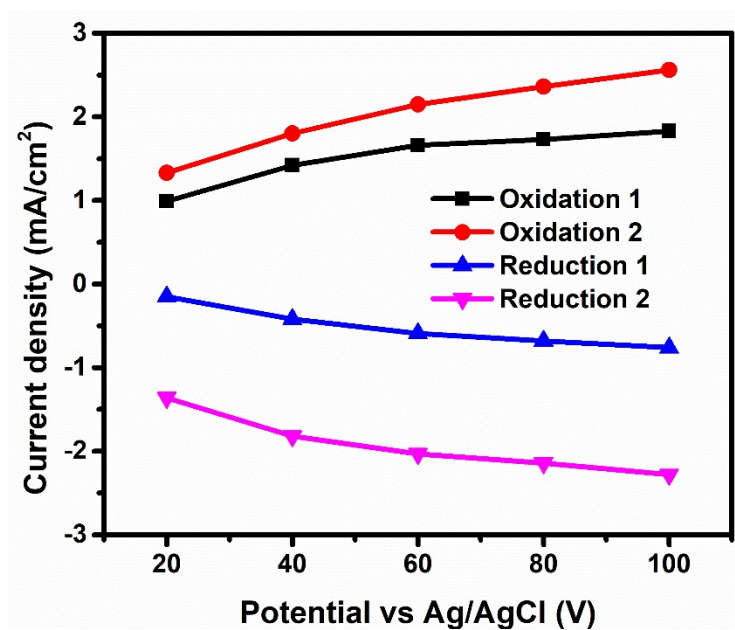


Fig. S5. Linear relationship of NFG-2 composite for current density shifts vs the scan rate.