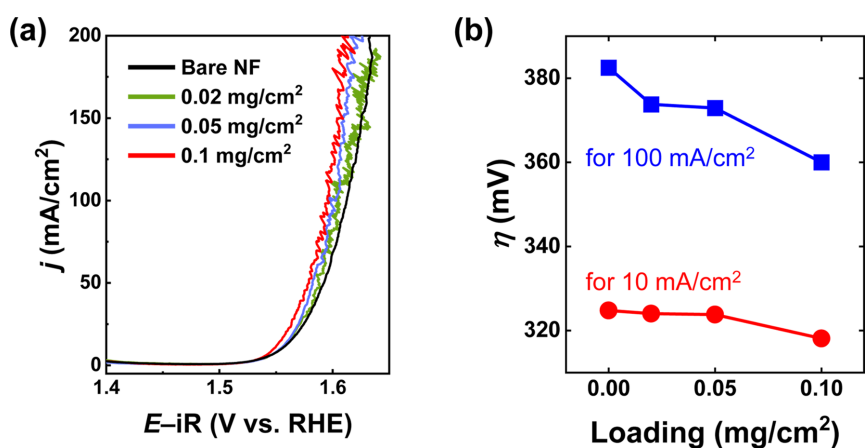
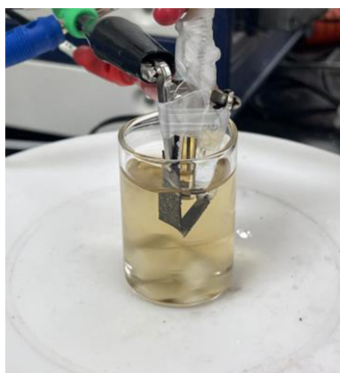


**Fig. S7.** (a) UV-vis absorption and (b) matrix-assisted laser desorption/ionization (MALDI) mass spectra of Ni<sub>6</sub> NC before and after CP electrolysis at 100 mA/cm<sup>2</sup> for 1 h. Trans-2-[3-(4-tert-butylphenyl)-2-methyl-2-propenyldene]malononitrile (DCTB) was used as the matrix. After electrolysis, water-adsorbed Ni<sub>6</sub>(SEtPh)<sub>12</sub>(H<sub>2</sub>O)<sub>6</sub> was additionally observed with pristine Ni<sub>6</sub>(SEtPh)<sub>12</sub>.



**Fig. S8.** OER activity comparison of the Ni<sub>6</sub>/NF electrodes as a function of Ni<sub>6</sub> loading. (a) LSV curves and (b) overpotentials required for achieving 10 and 100 mA/cm<sup>2</sup> at different loadings. To accurately measure the loading amount, 9 cm<sup>2</sup> NF was used as a substrate.



**Fig. S9.** Digital Photograph after CP electrolysis on Ni<sub>6</sub>/GDE. The carbon was corroded and dissolved out as form of yellowish nanoparticle.