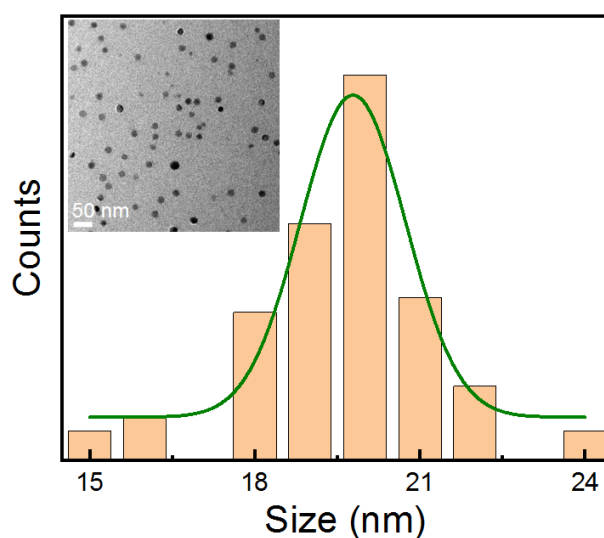


Supporting information

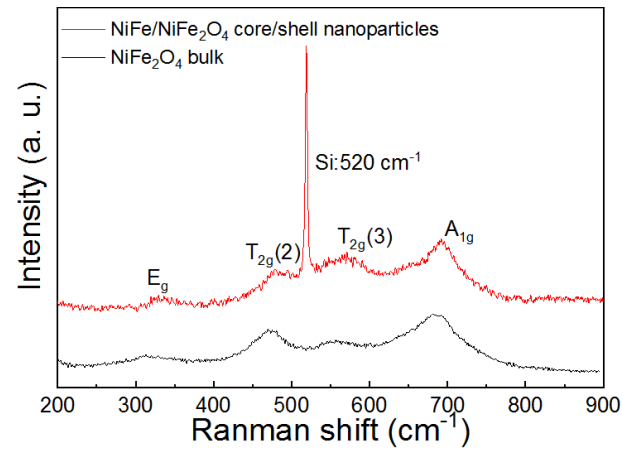
# Interfacial effect on photo-modulated magnetic properties of core/shell-structured NiFe/NiFe<sub>2</sub>O<sub>4</sub> nanoparticles

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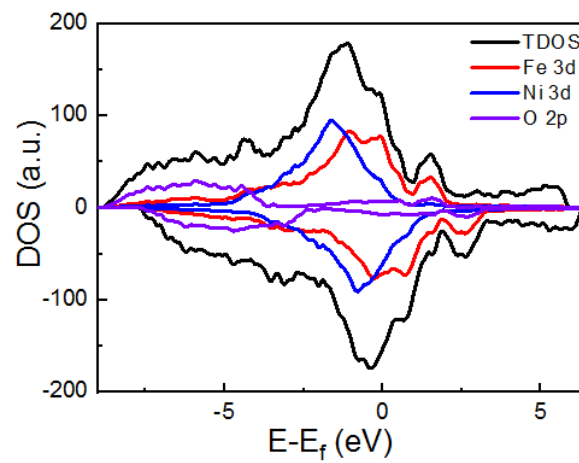
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**Figure S1** Size distribution of NiFe/NiFe<sub>2</sub>O<sub>4</sub> core/shell nanoparticles and the corresponding zoom-in TEM image.



**Figure S2** Raman spectra of NiFe<sub>2</sub>O<sub>4</sub> bulk and NiFe/NiFe<sub>2</sub>O<sub>4</sub> core/shell nanoparticles. A Si peak at 520  $\text{cm}^{-1}$  is used as a reference for calibration.



**Figure S3** Calculated DOS of NiFe/NiFe<sub>2</sub>O<sub>4</sub> core/shell nanoparticle.