

Electronic Supplementary Information

# Inorganic-Organic multiferroic hybrid films of $\text{Fe}_3\text{O}_4$ and PVDF with excellent magneto-electric coupling

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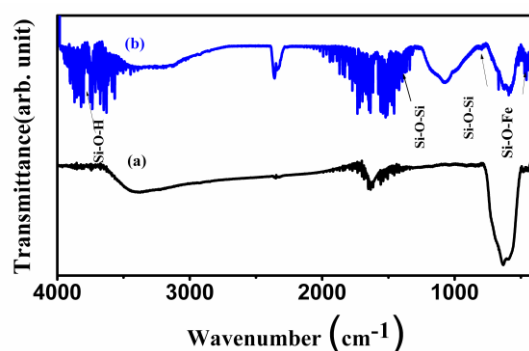


Figure S1: IR spectra of (a)  $\text{Fe}_3\text{O}_4$  and (b) silica coated  $\text{Fe}_3\text{O}_4$

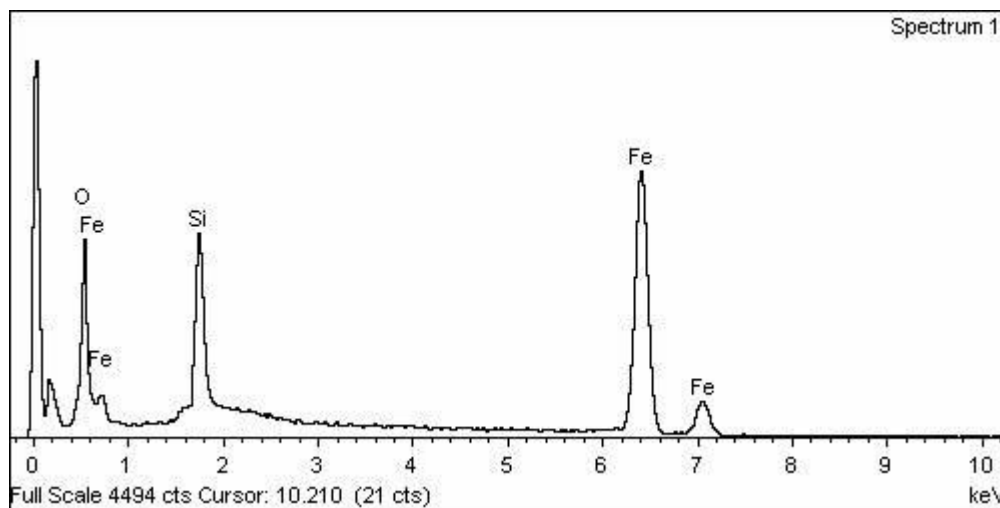


Figure S2: EDS spectra of silica coated  $\text{Fe}_3\text{O}_4$

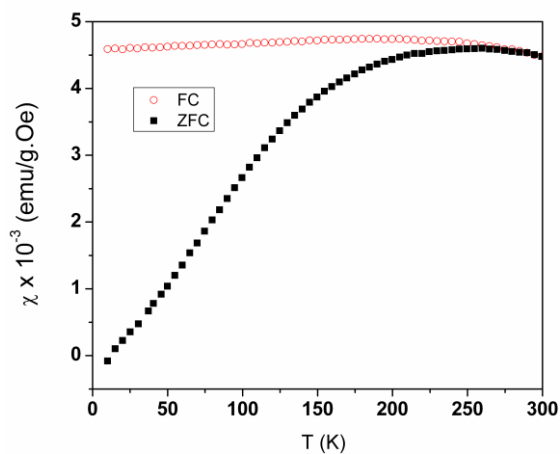


Figure S3: FC-ZFC behavior of PVDF-A

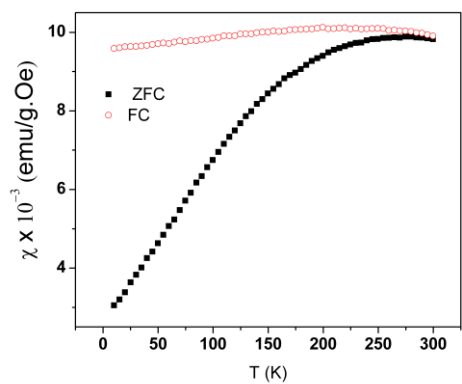


Figure S4: FC-ZFC behavior of PVDF-B

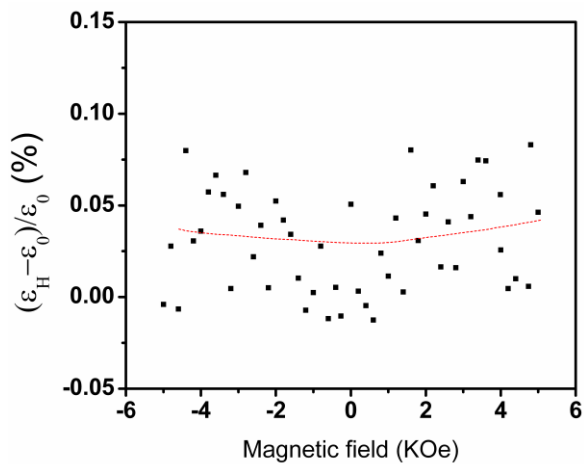


Figure S5: Magnetodielectric coupling of the Fe<sub>3</sub>O<sub>4</sub>-SiO<sub>2</sub> composite