Supplementary Information

Towards high power generating piezoelectric nanofibers: Influence of particle size and surface electrostatic interaction of Ce- Fe_2O_3 and Ce-Co_3O_4 on PVDF

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Supporting Information-Figure S1

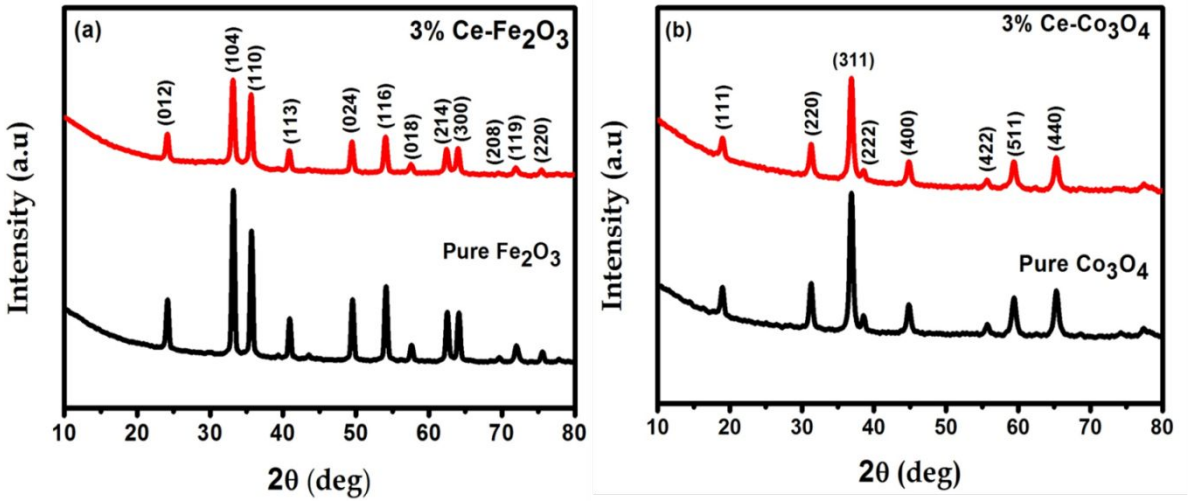

Figure S1: XRD pattern of (a) 3 wt.% Ce-doped Fe_2O_3 and (b) 3 wt.% Ce-doped Co_3O_4.

Supporting Information-Figure S2

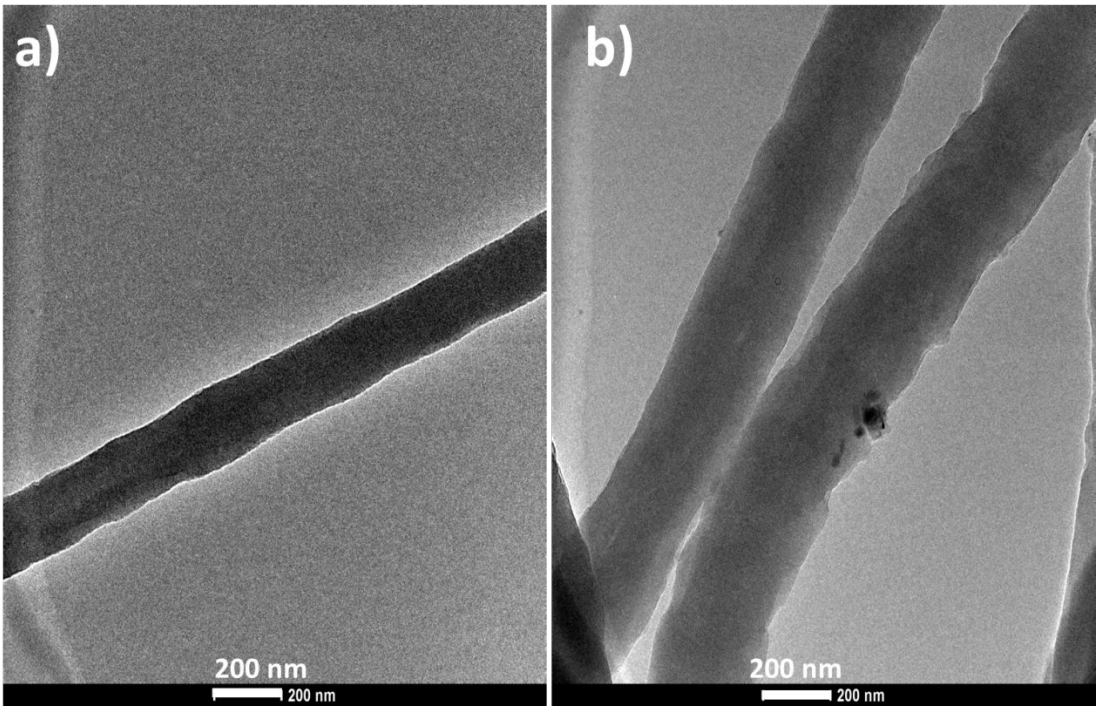

Figure S2: TEM images of (a) PVDF/2wt.% Ce-Fe_2O_3 (b) PVDF/2wt.% Ce-Co_3O_4 samples.

Supporting Information-Figure S3

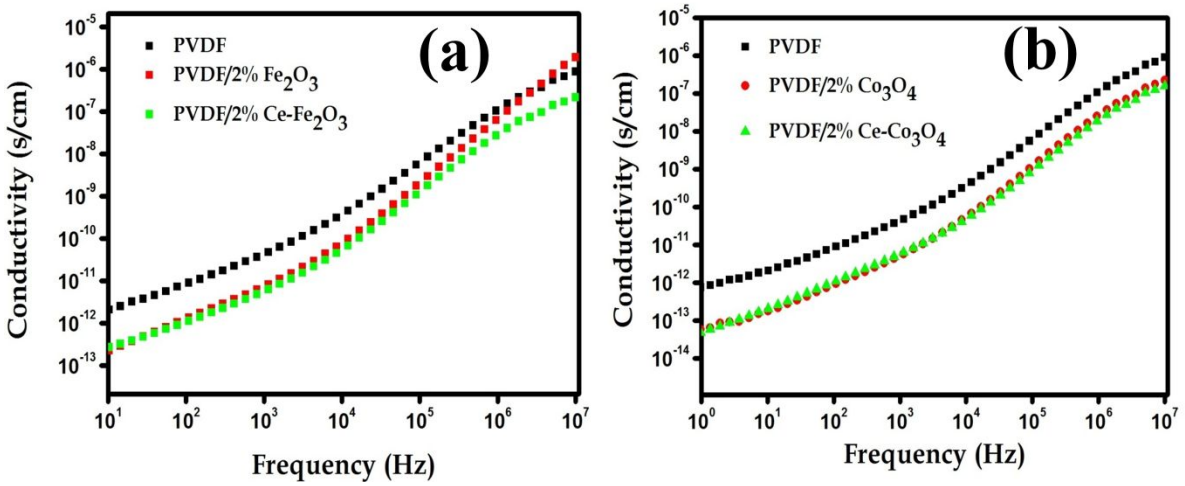

Figure S3: Conductivity spectra of neat PVDF, PVDF/2wt% Ce-Fe_2O_3 (a) and PVDF/2wt% Ce-Co_3O_4(b) nanofibers.

Supporting Information-Figure S4

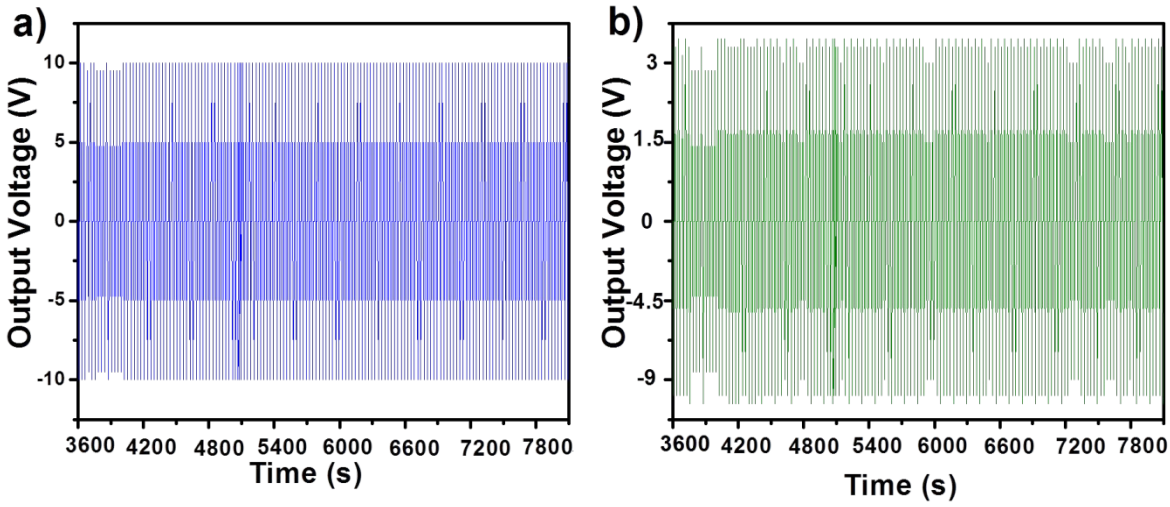

Figure S4: Stability of piezoelectric output voltage over the period of 2 h a) PVDF/2wt% Ce-Fe_2O_3 and (b) PVDF/2wt% Ce-Co_3O_4 nanofibers.

Supporting Information-Table S1

Table S1. γ- Phase crystallinity and degree of crystallinity in the PVDF and its nanoccomposites determined from the FTIR and DSC spectra.

Samples	γ-Phase crystallinity by FTIR spectra (%)	Crystallinity Index by DSC X_c (%)
Neat PVDF	45	41.2
PVDF/2% Fe_2O_3	68	43.60
PVDF/2% Ce-Fe_2O_3	75	44.21
PVDF/ 2% Co_3O_4	65	42.19
PVDF/2% Ce-Co_3O_4	70	43.20