Electronic Supplementary Material (ESI) for RSC Advances.

SUPPORTING INFORMATION

The synthesis and super capacitive characterization of microwave-assisted highly crystalline α-Fe_2O_3/Fe_3O_4 nanoheterostructure

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Figure SI 1

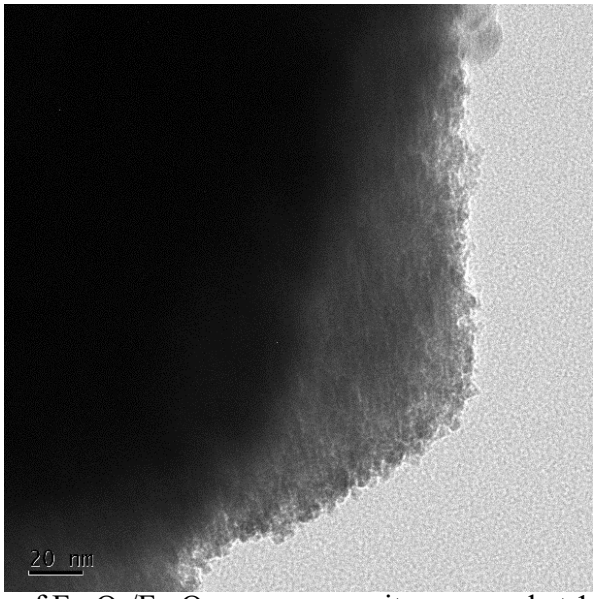

Figure SI 1TEM image of Fe_2O_3/Fe_3O_4 nanocomposite prepared at 1:3 Water to EG solvent ratios

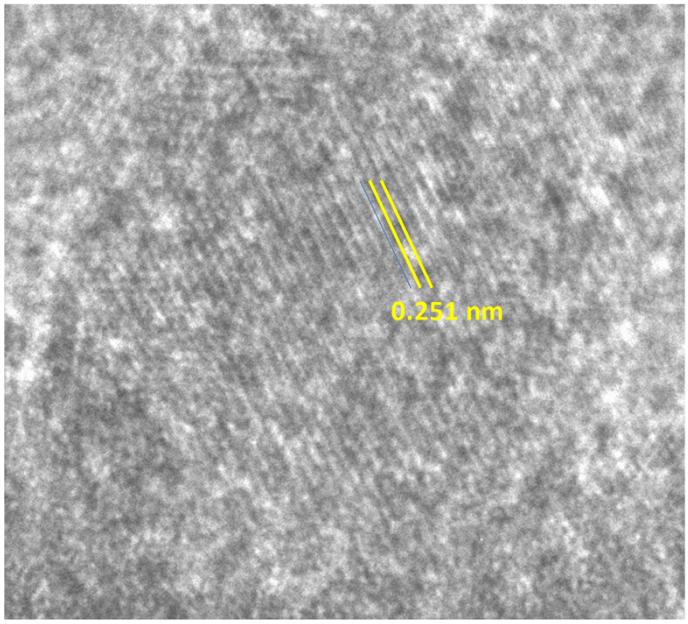

Figure SI 2 lattice resolved HRTEM of Fe_2O_3 on Fe_2O_3 nanoparticles.

Figure SI3

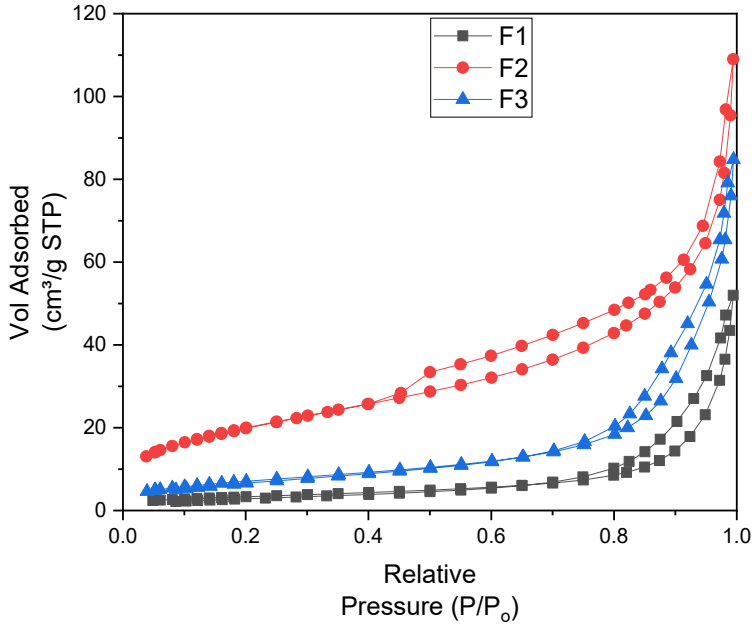

Figure SI3: Nitrogen adsorption and desorption isotherms of F1, F2 and F3.

Table SI1: Comparison of supercapacitance with reported values.

Material	Supercapacitance (F/g)
a-Fe2O3/Fe3O4 heterostructure (ref 1)	150 @ 0.5mA/g
Fe2O3-Fe3O4/N-rGO (Ref 2)	120 @ 0.8 A/g
Fe_3O_4/Fe_2O_3 heterostructures (This work)	165 @ 0.5mA/g
Fe_3O_4 nanoparticles (This work)	143 @ 0.5mA/g
Fe_3O_4 nanoparticles (Ref 3)	95.4 @ 1.0mA/g
Fe_3O_4 nanoparticles (Ref 4)	145 @ 0.5mA/g

1. Dejian Chen et al. RSC Adv., 2016, 6, 45023
2. Sourav Mallick et al. ChemElectroChem 2018, 5, 2348 – 2356.
3. P.M.Anjan et al., Materials Science and Engineering: B, 2023, 290, 116313
4. T. Arun et al. *Applied Surface Science 485 (2019) 147–157*