

*Supplementary Materials*

## **Polyaniline Ingrained Copper Oxide (PANI/CuO) Nanocomposites for Effective Electromagnetic Interference Shielding and Their Sensitive Detection of Dopamine**

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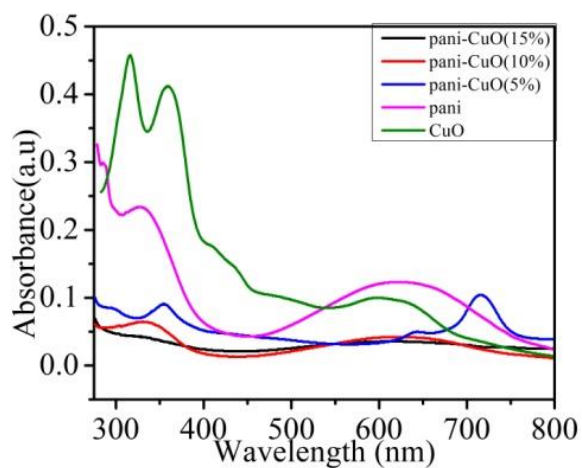
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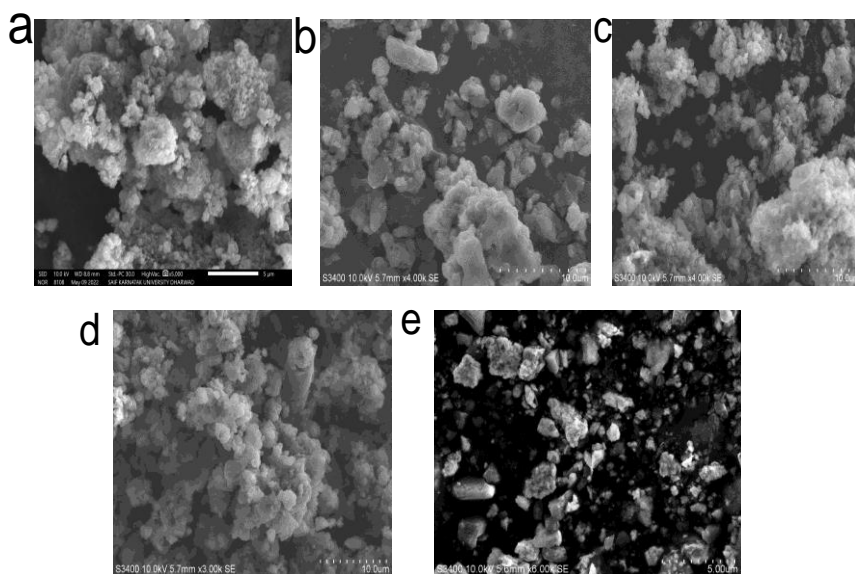
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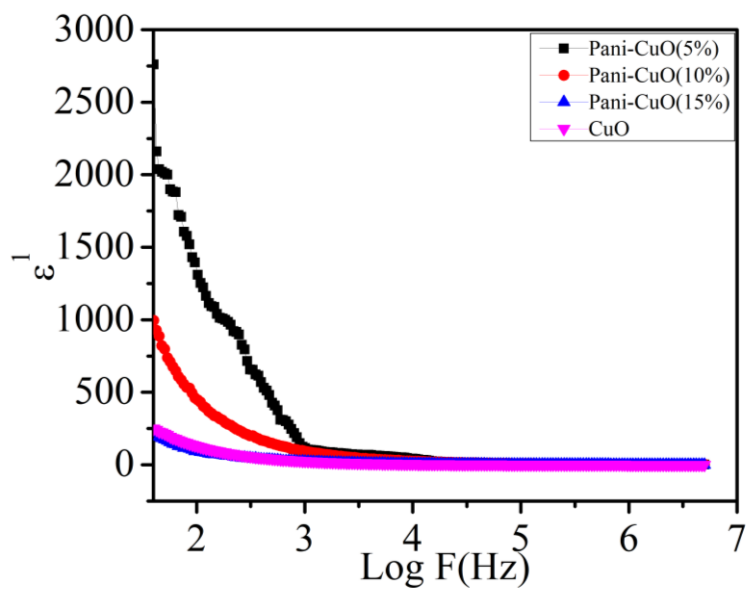
E-Mail: [sannappaj2012@gmail.com](mailto:sannappaj2012@gmail.com)



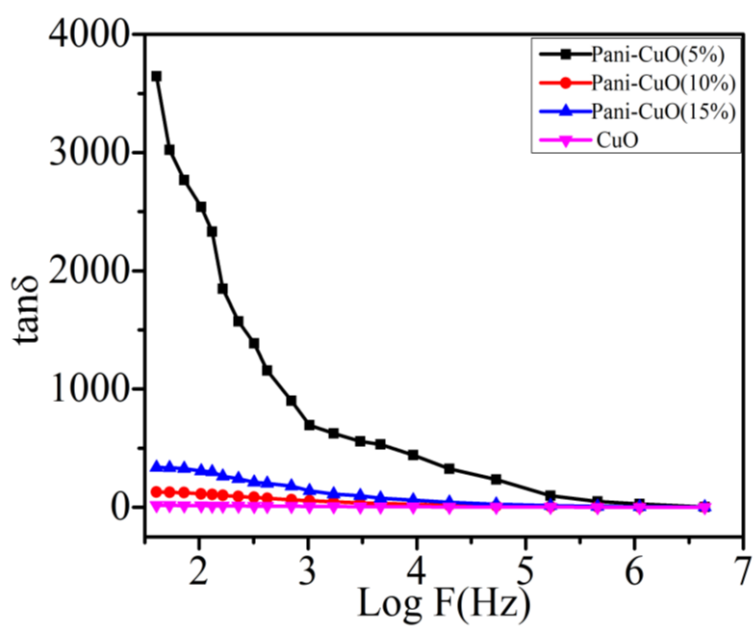
**Figure S1.** UV-Vis spectra of CuO, PANI and PANI/CuO nanocomposites



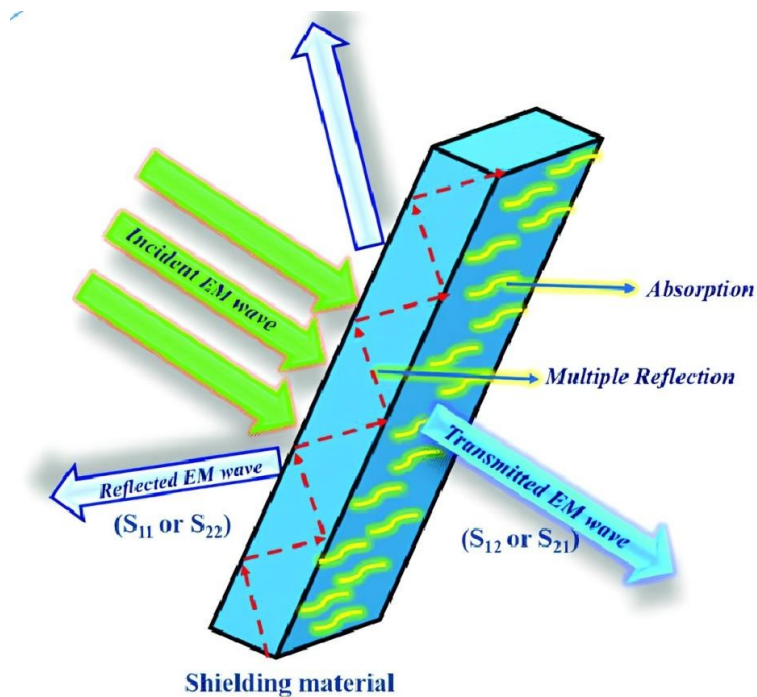
**Figure S2.** SEM images of a) PANI b) PANI/CuO (5%) c) PANI/CuO (10%) d) PANI/CuO (15%) e) CuO



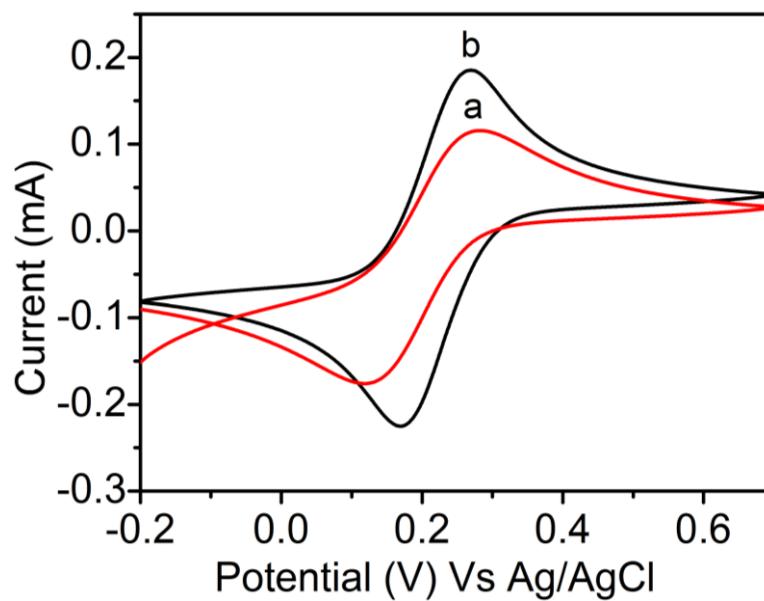
**Figure S3.** The plot of dielectric permittivity with frequency for CuO and PANI/CuO nanocomposites



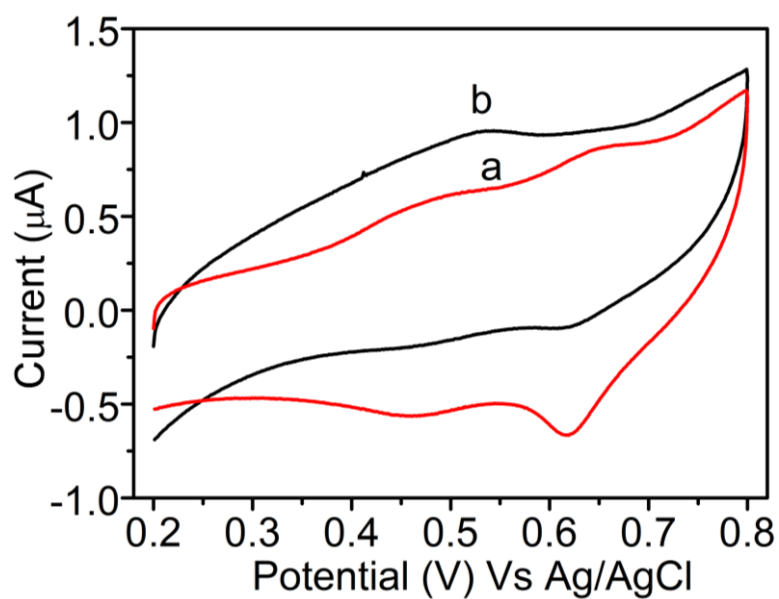
**Figure S4.** The plot of frequency variation of tangent loss of CuO and PANI-CuO nanocomposites



**Figure S5.** Mechanism of attenuation of electromagnetic energy by shielding material



**Figure S6.** Charge transfer behaviour of (a) Bare GCE (b) modified electrode



**Figure S7.** CVs of PANI-CuO/GCE electrode in a PBS (pH 7.0) in (a) modified GCE and (b) modified GCE with 10 μM DA; scan rate: 50 mV/s