Electronic Supplementary Material (ESI) for Journal of Materials Chemistry A.

Supplementary Information

Enhanced Electromagnetic Wave Absorption of Magnetic Co Nanoparticles/CNTs/EG Porous Composites with Waterproof, Flame-retardant and Thermal Management Functions

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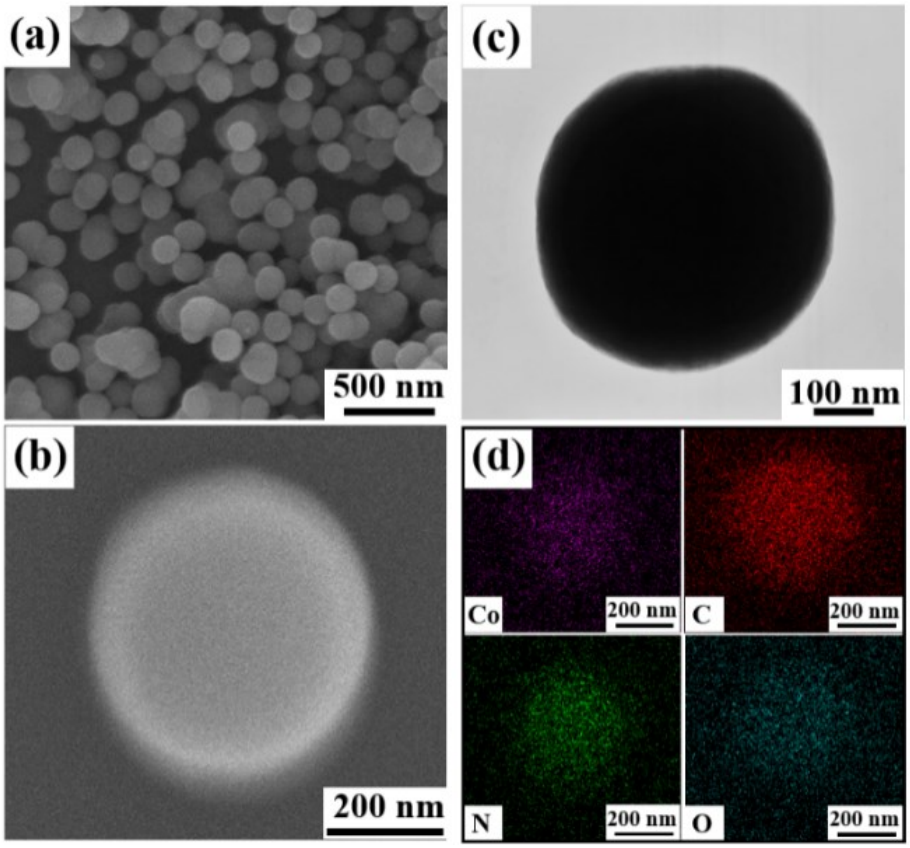

Figure S1 SEM images of (a) Co-MOFs particles, (b) a single Co-MOFs particle, (c) TEM image of Co-MOFs particle, and (d) EDS mapping of Co-MOFs particle.

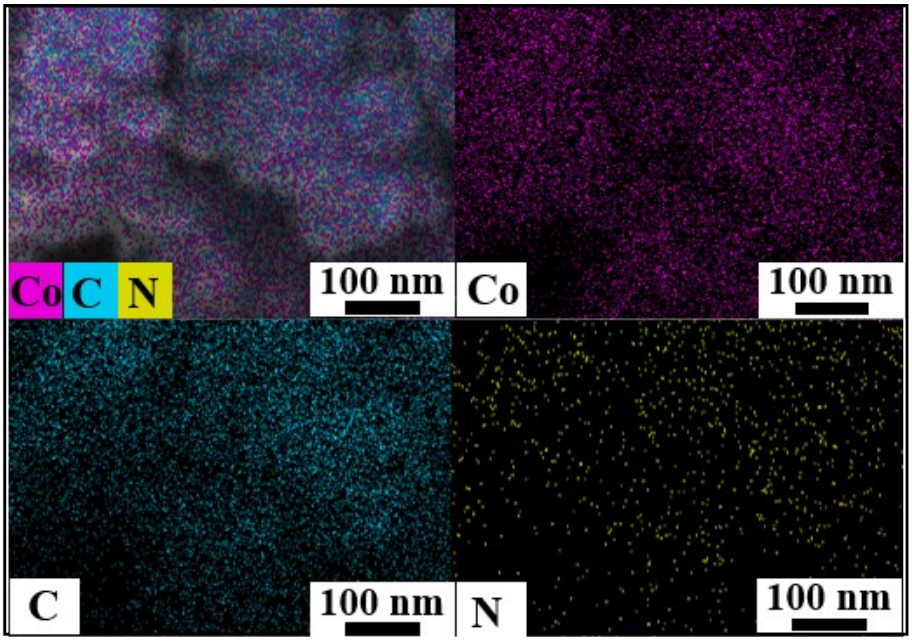

Figure S2 The EDS mapping of Co/CNTs nanocomposites.

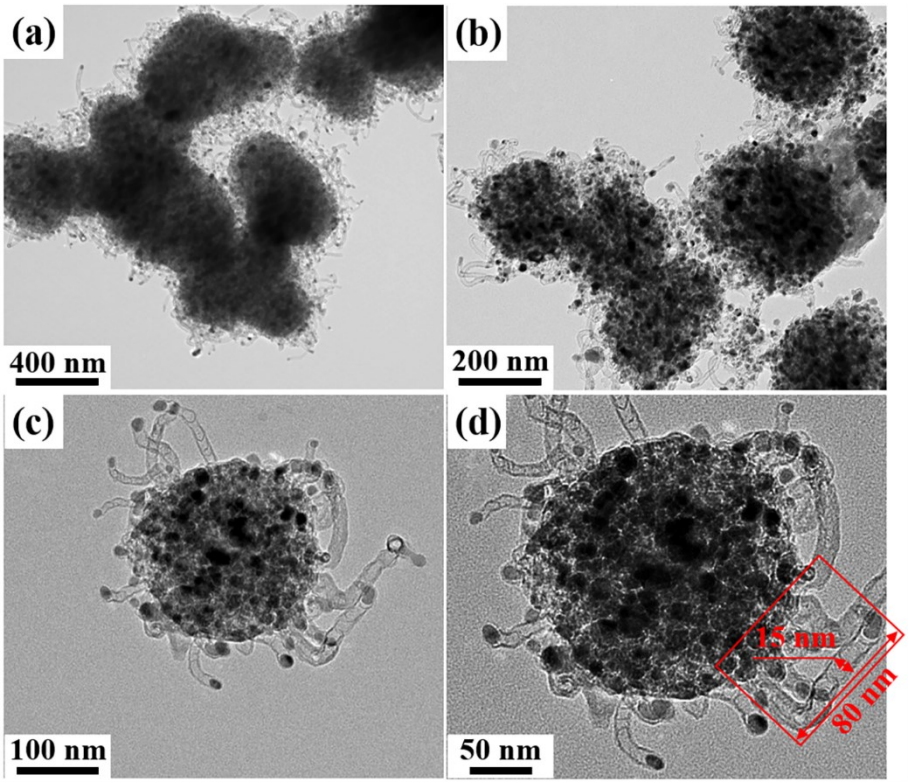

Figure S3 TEM images of Co/CNTs nanocomposites.

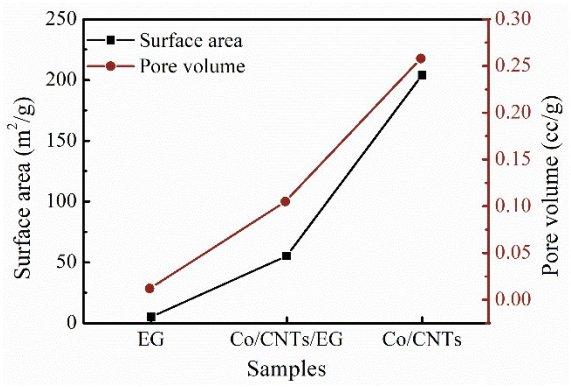

Figure S4 The surface area and total pore volume of samples.

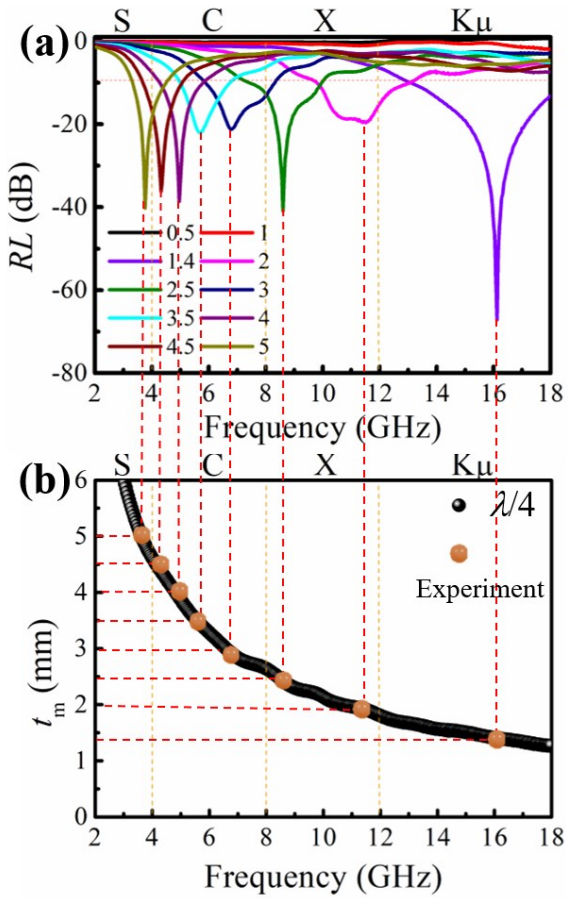

Figure S5 (a) *RL* values versus frequency and thicknesses, (b) The relationship between simulated matching thickness t_m and peak frequency of Co/CNTs/$EG_{(4:3)}$ nanocomposites.

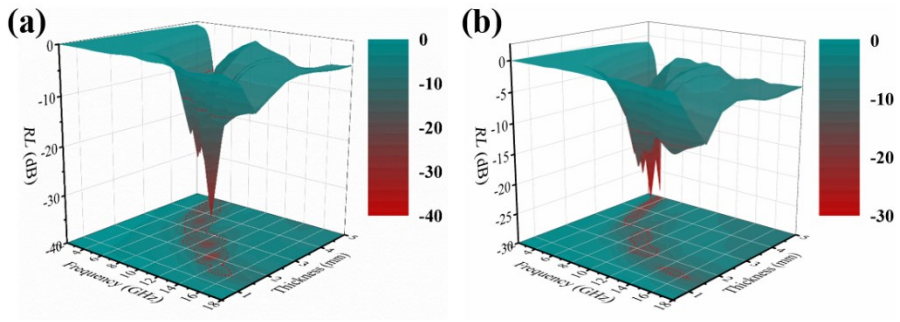

Figure S6 3D representations of *RL* values for (a) Co/CNTs/EG$_{(2:1)}$ and (b) Co/CNTs/EG$_{(1:1)}$.

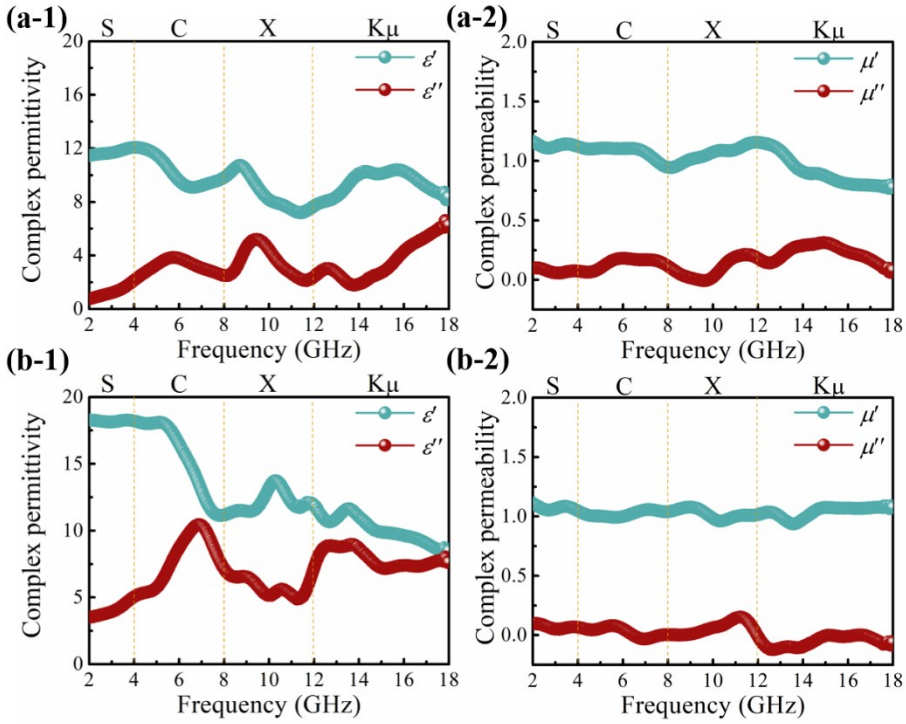

Figure S7 The frequency dependence of permittivity (ε', ε'') and permeability (μ', μ'')) of Co/CNTs/EG$_{(2:1)}$ (a-1, a-2) and Co/CNTs/EG$_{(1:1)}$ (b-1, b-2).

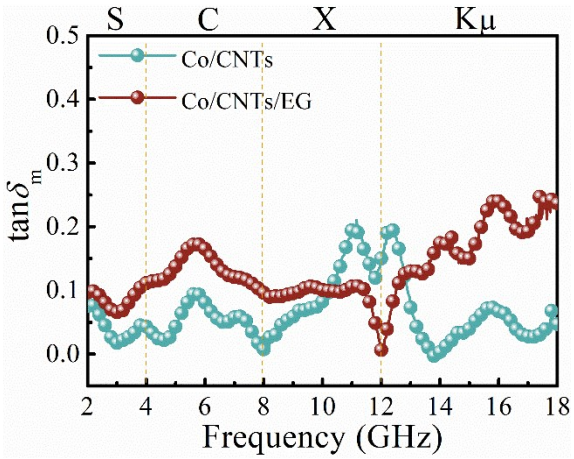

Figure S8 The frequency dependence of magnetic loss tangent ($\tan\delta_m$) of Co/CNTs and Co/CNTs/EG$_{(4:3)}$.

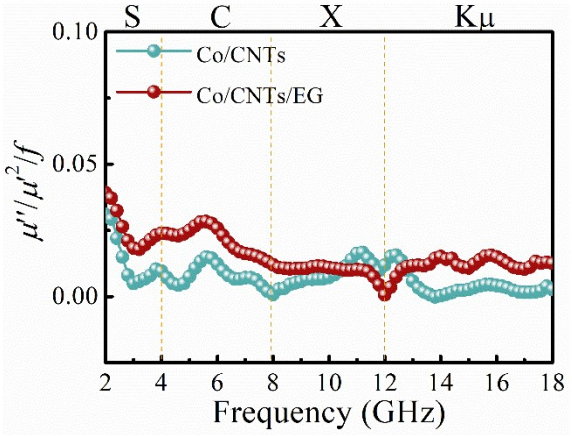

Figure S9 The frequency-dependent $\mu''(\mu')^{-2}f^{1}$ values of Co/CNTs and Co/CNTs/EG$_{(4:3)}$.