

Supporting Information

Rational Design of CNTs with Encapsulated Co Nanospheres as Superior Acidic-and-Basic-Resistant Microwave Absorber

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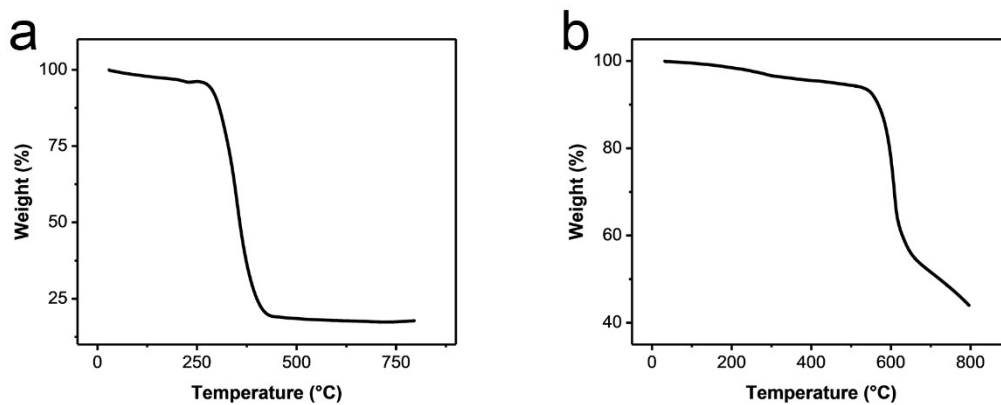


Fig. S1 TG curves of Co@CNTs-500 under air (a) and ZIF-67 under nitrogen (b).

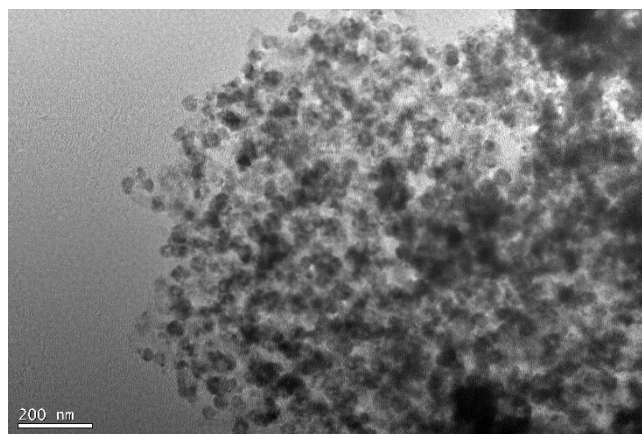


Fig. S2 TEM image of Co@CNTs.

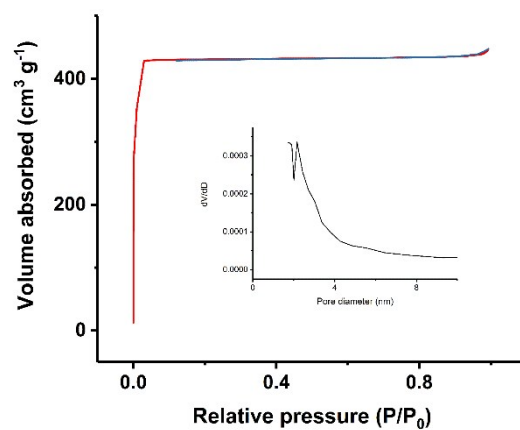


Fig. S3 Nitrogen sorption isotherms and pore size distribution of nanoZIF-67.

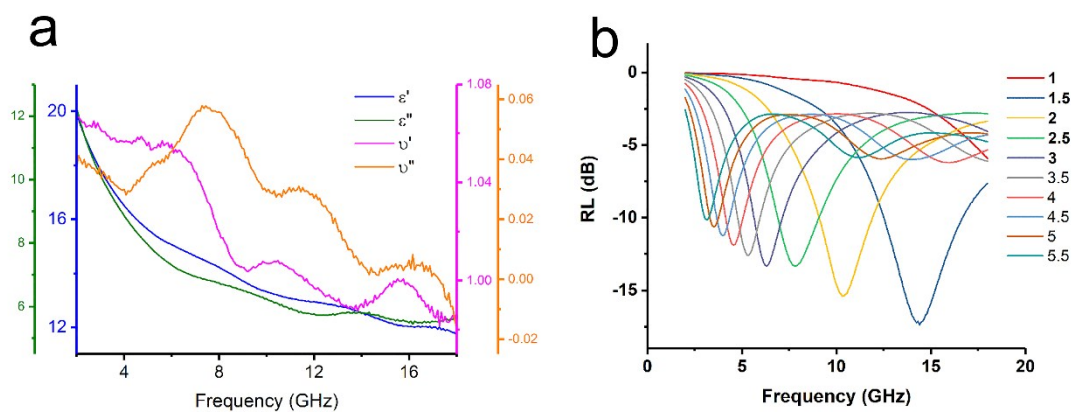


Fig. S4 Co@CNTs-800 real and imaginary parts of complex permittivity and permeability (a), and microwave reflection losses (b).

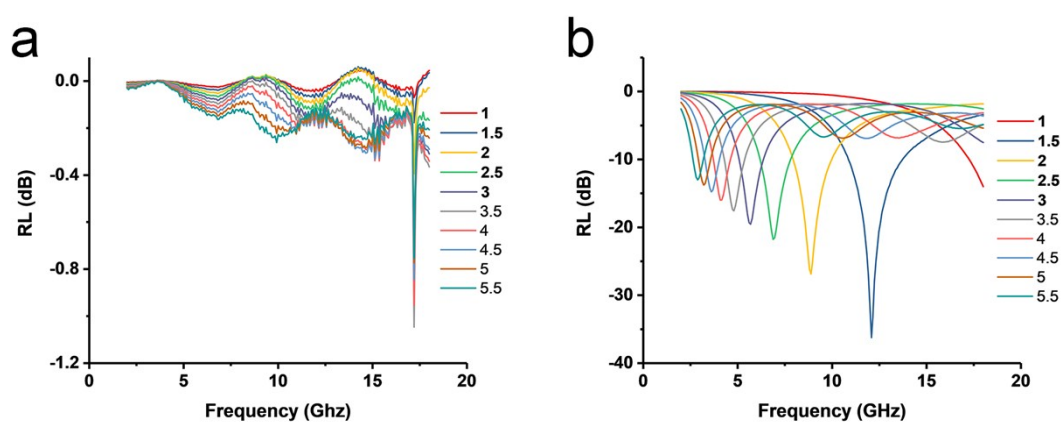


Fig. S5 Microwave reflection losses of ZIF-67 (a) and commercial CNTs (b).

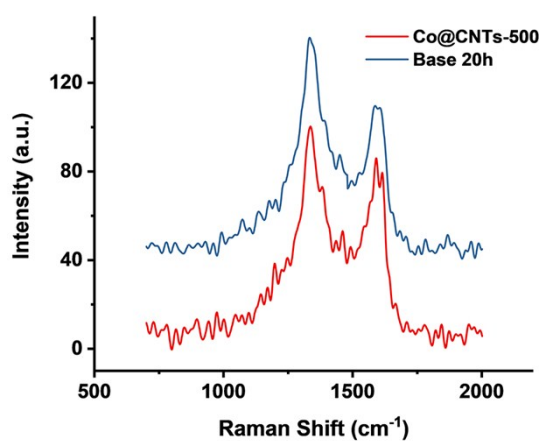


Fig. S6 Raman spectra of Co@CNTs-500 (red) and after treated with 1 M ammonia 20 h (blue).

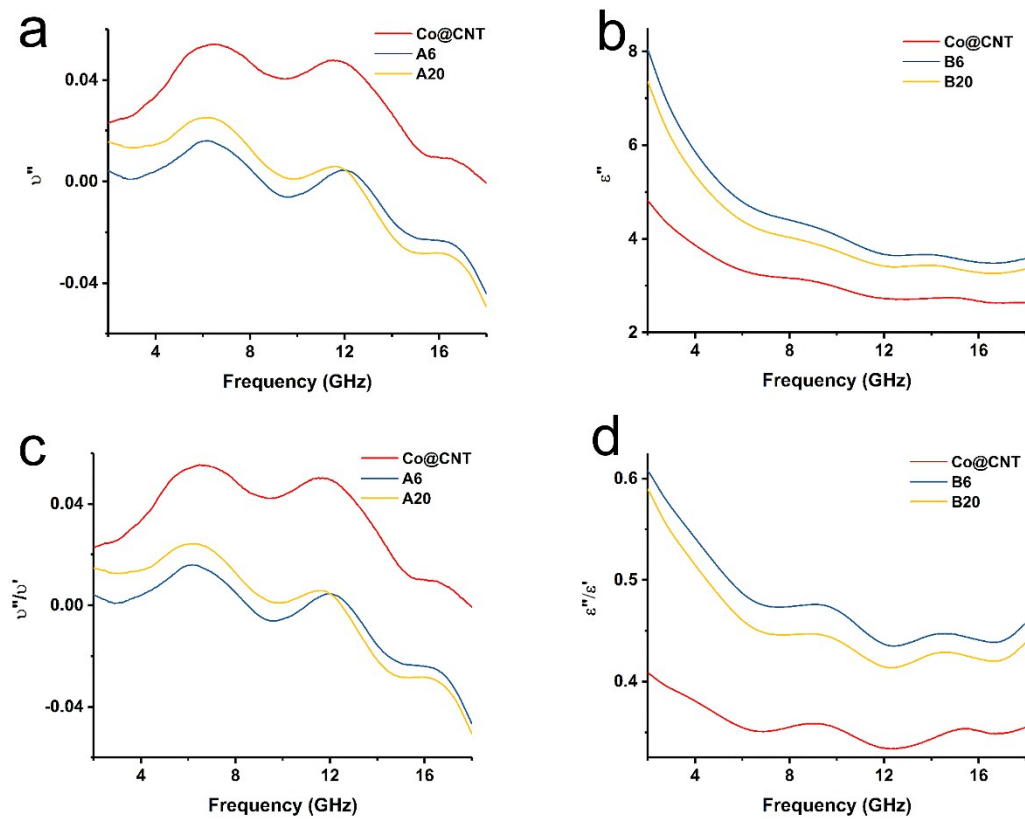


Fig. S7 imaginary parts of permeability and magnetism loss tangents after treatment with 1 M H_2SO_4 for 6 h and 20 h (a and c), imaginary parts of permittivity and dielectric loss tangent after treatment with 1 M $\text{NH}_3\cdot\text{H}_2\text{O}$ for 6 h and 20 h (b and d).

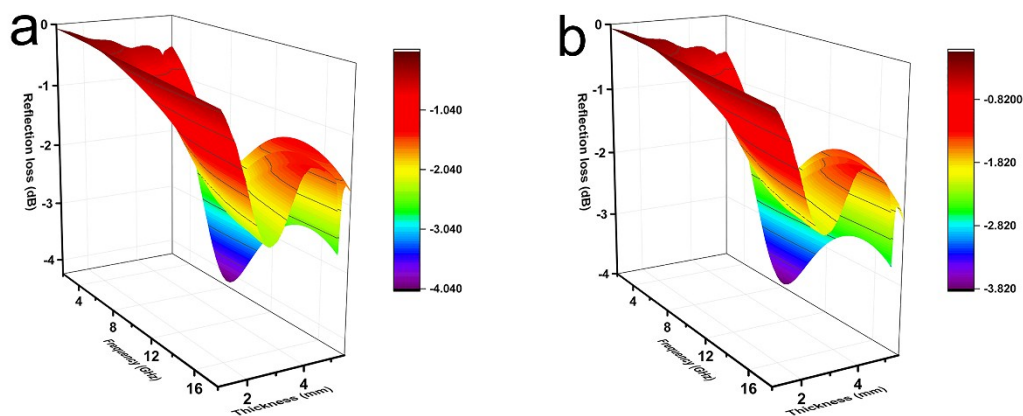


Fig. S8 Three-dimensional representation of RL values for the commercial carbonyl iron powder (a) and after treatment with 1 M $\text{NH}_3\cdot\text{H}_2\text{O}$ for 6 h (b) (30 wt.%).