

Electronic Supplementary Information

Thermal conversion of Fe₃O₄@Metal-Organic Framework: A new method for efficient Fe-Co/nanoporous carbon microwave absorbing material

Xingmiao Zhang^a, Guangbin Ji ^{a,*} Wei Liu^a, Bin Quan^a, Xiaohui Liang^a, Chaomei Shang^a, Yan Cheng^a and Youwei Du^b

^a College of Material Science and Technology, Nanjing University of Aeronautics and Astronautics, Nanjing 210016, Peoples Republic of China

^b Laboratory of Solid State Microstructures, Nanjing University, Nanjing 210093, Peoples Republic of China

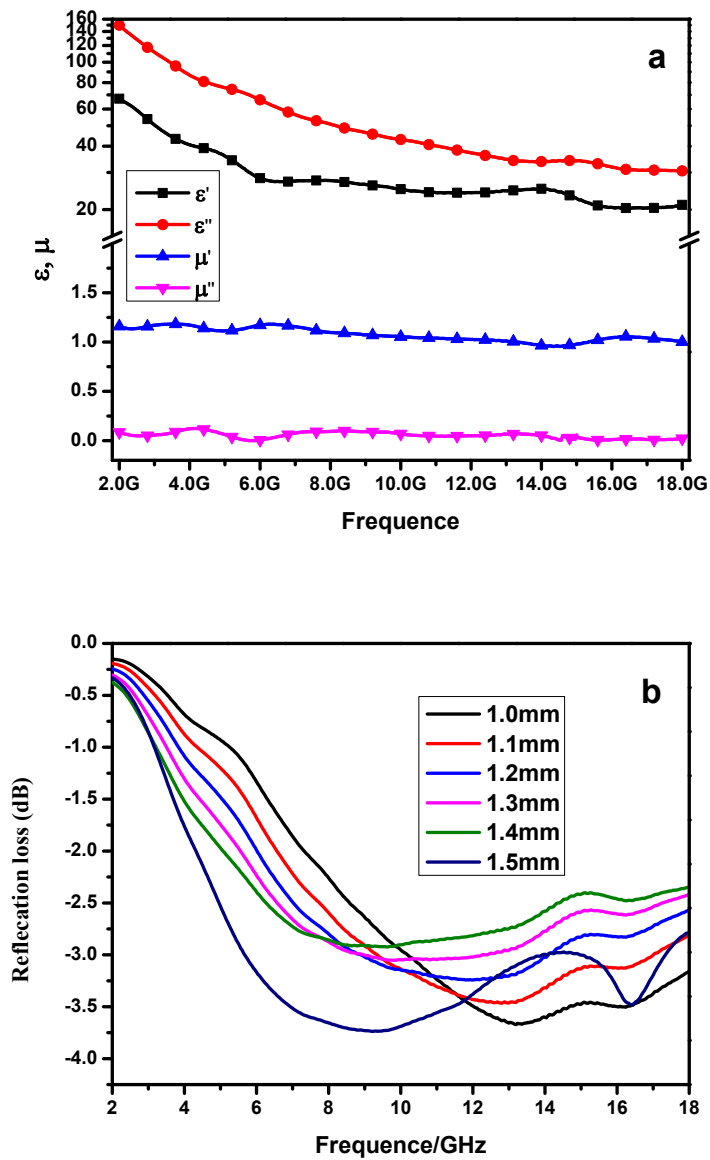


Figure S1 (a) Measured frequency dependence of samples-paraffin (50 wt%) composites permittivity and permeability Co/NPC; (b) Frequency dependence of the microwave reflection loss of the Co/NPC.

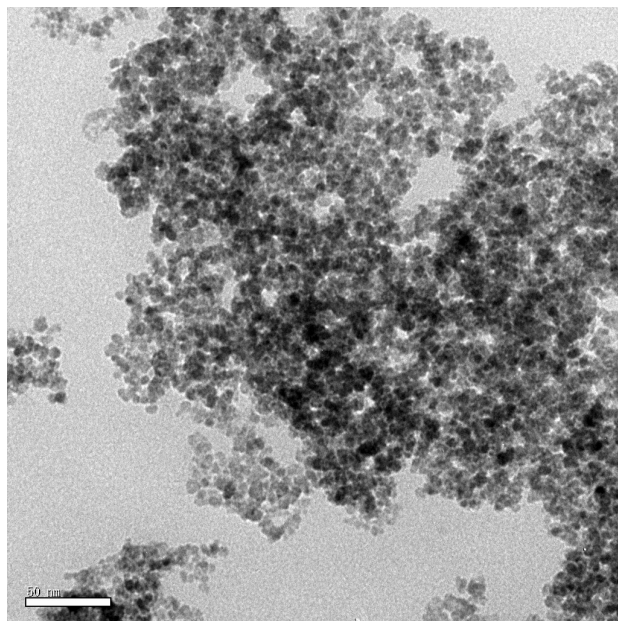


Figure S2. TEM image of the ultra-small water-soluble Fe_3O_4 .

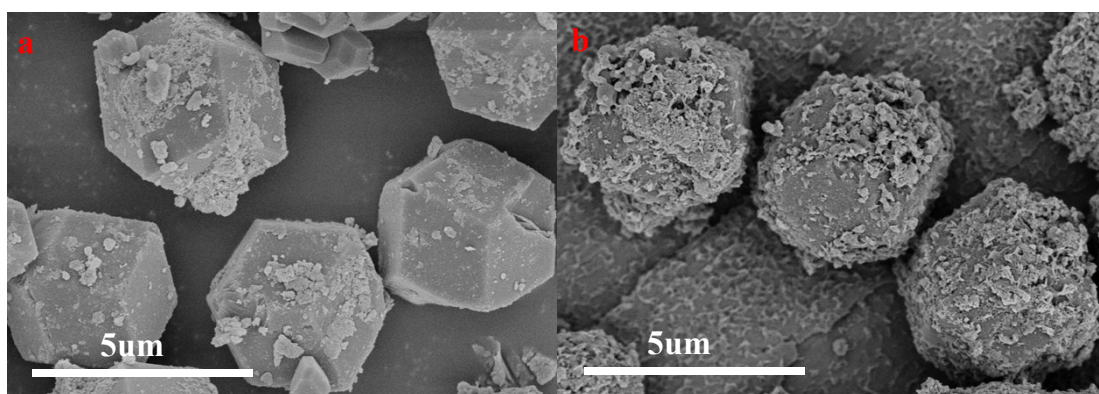


Figure S3. (a) SEM images of ZIF-67 and (b) IONP@ZIF-67-1.0.

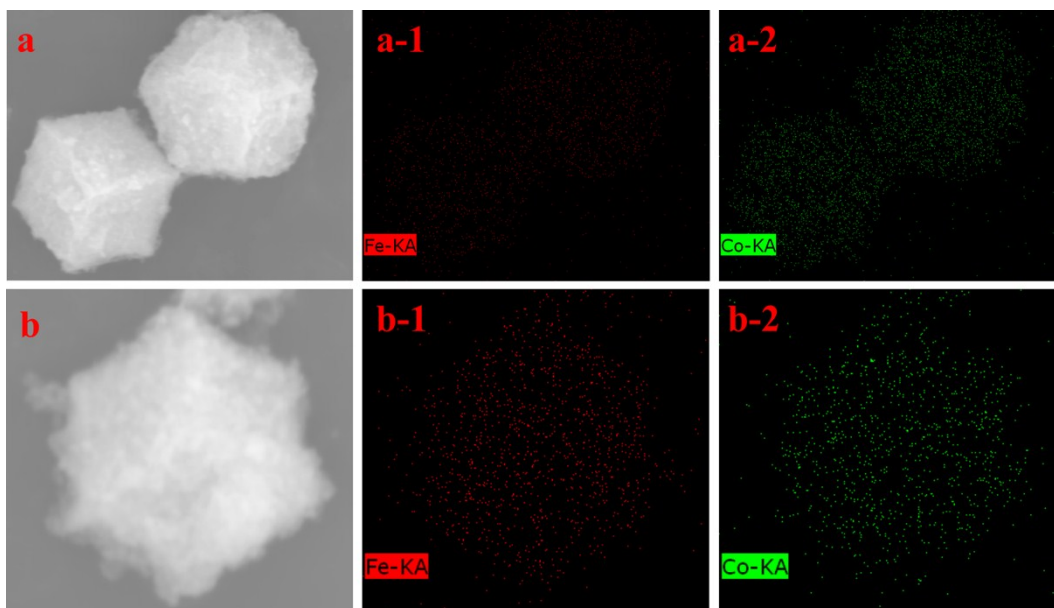


Figure S4. The elemental mappings of Fe-Co/NPC-0.5 (a, a-1 and a-2) and Fe-Co/NPC-1.0 (b, b-1 and b-2).

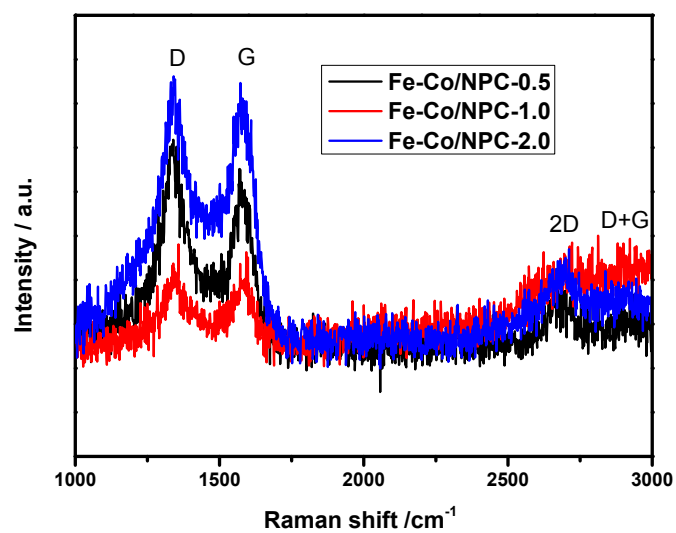


Figure S5. The Raman spectrum of Fe-Co/NPC-x (x= 0.5, 1.0 and 2.0).

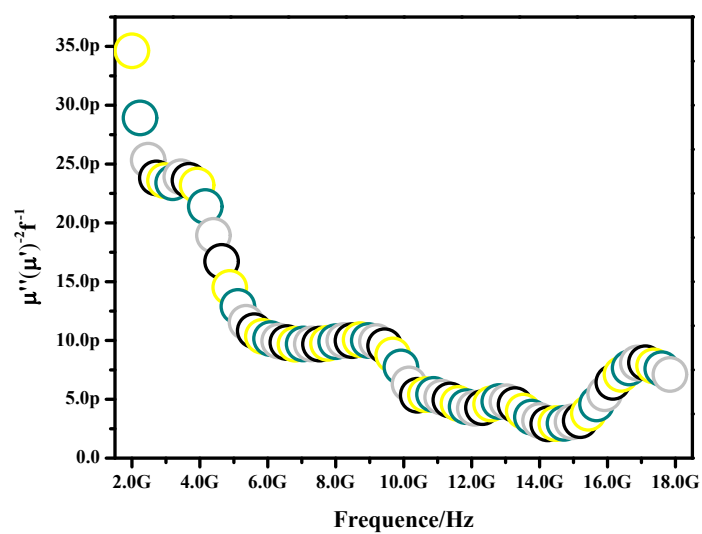
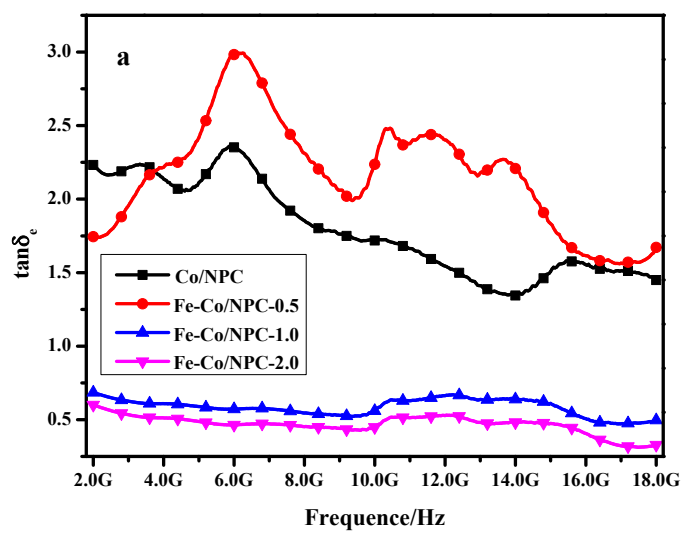


Figure S6. Values of $\mu''(\mu')^2 f^{-1}$ for Fe-Co/NPC-2.0 vs frequency.



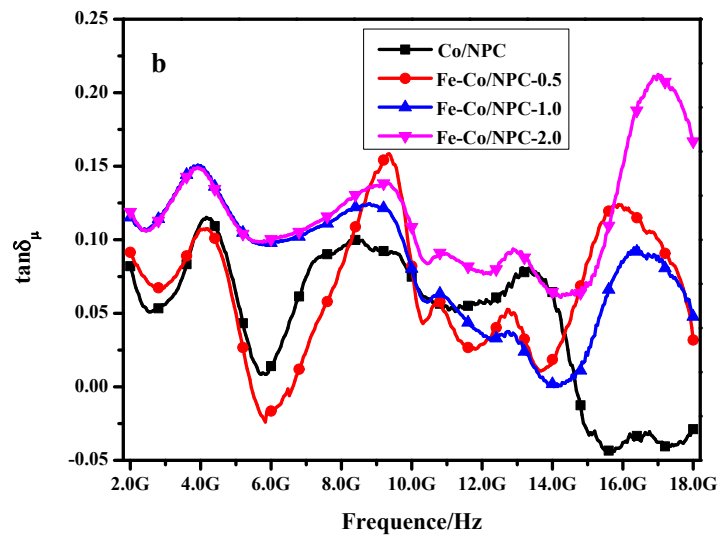


Figure S7. (a) The dielectric loss tangent ($\tan \delta_{\epsilon} = \epsilon''/\epsilon'$) and (b) the magnetic loss tangent ($\tan \delta_{\mu} = \mu''/\mu'$).