Supporting Information

Small magnetic nanoparticles decorating reduced graphene oxides to tune electromagnetic attenuation capacity

Jun-Zhe He, a Xi-Xi Wang, a Yan-Lan Zhang, a and Mao-Sheng Cao* a

a School of Material Science and Engineering, Beijing Institute of Technology, Beijing 100081, China. *E-mail: caomaosheng@bit.edu.cn;

Fig. S1 The SEM images of NiFe₂O₄/r-GO.
Fig. S2 Particle size distribution histogram of NiFe$_2$O$_4$ nanoparticles from the inset.
Fig. S3 The energy dispersive spectroscopy (EDS) analysis of NiFe$_2$O$_4/r$-GO samples; the mass percent and atom percent is in the inset.
Fig. S4 Magnetic hysteresis loops for NiFe$_2$O$_4$/r-GO samples.
Fig.S5 Frequency dependence of the $\tan \delta_e$ and $\tan \delta_m$ of the samples with different NiFe$_2$O$_4$/r-GO loadings (a-f).
Fig. S6 Microwave attenuation constants ($\alpha$) of the samples with different loadings
Fig.S7 Dependence of color maps of the reflection loss on frequency at various thickness and dependence of $\lambda/4$ and $3\lambda/4$ thickness on frequency for the samples with different NiFe$_2$O$_4$/r-GO loadings.