Supporting Information

Design of nitrogen-doped carbon nanotubes/cobalt@carbon composite foam with high- electromagnetic wave absorption ability

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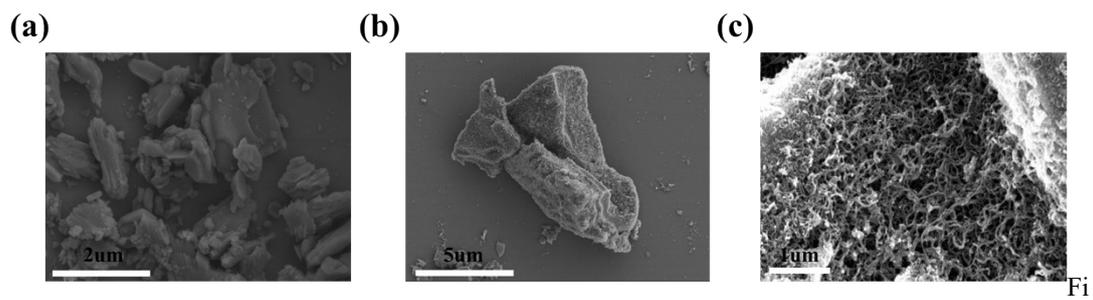
Fig. S1. (a) Precursor of NCNTs/Co@C, (b) and (c) SEM images at different magnifications after annealing at 700°C.
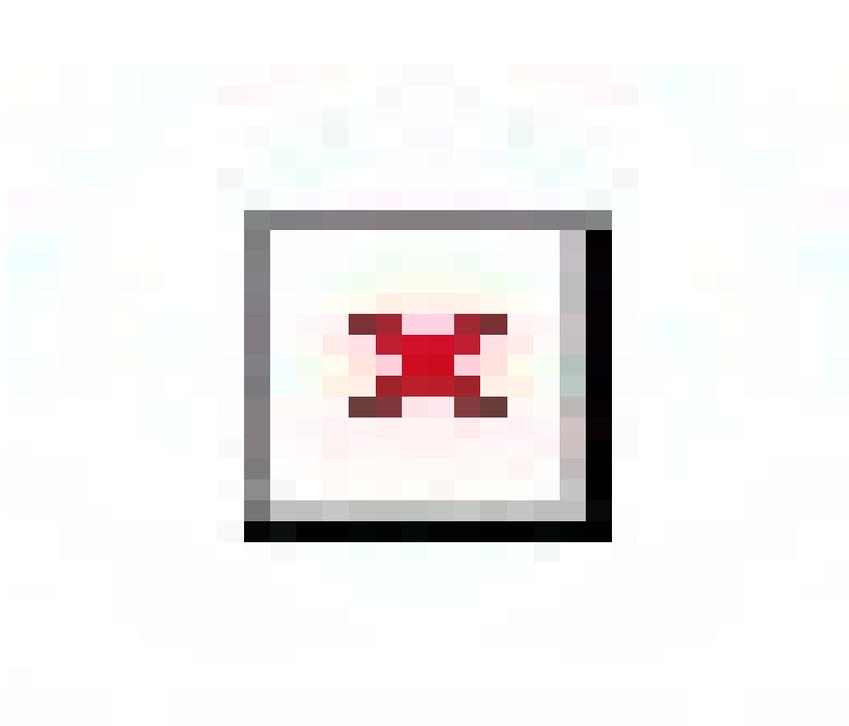
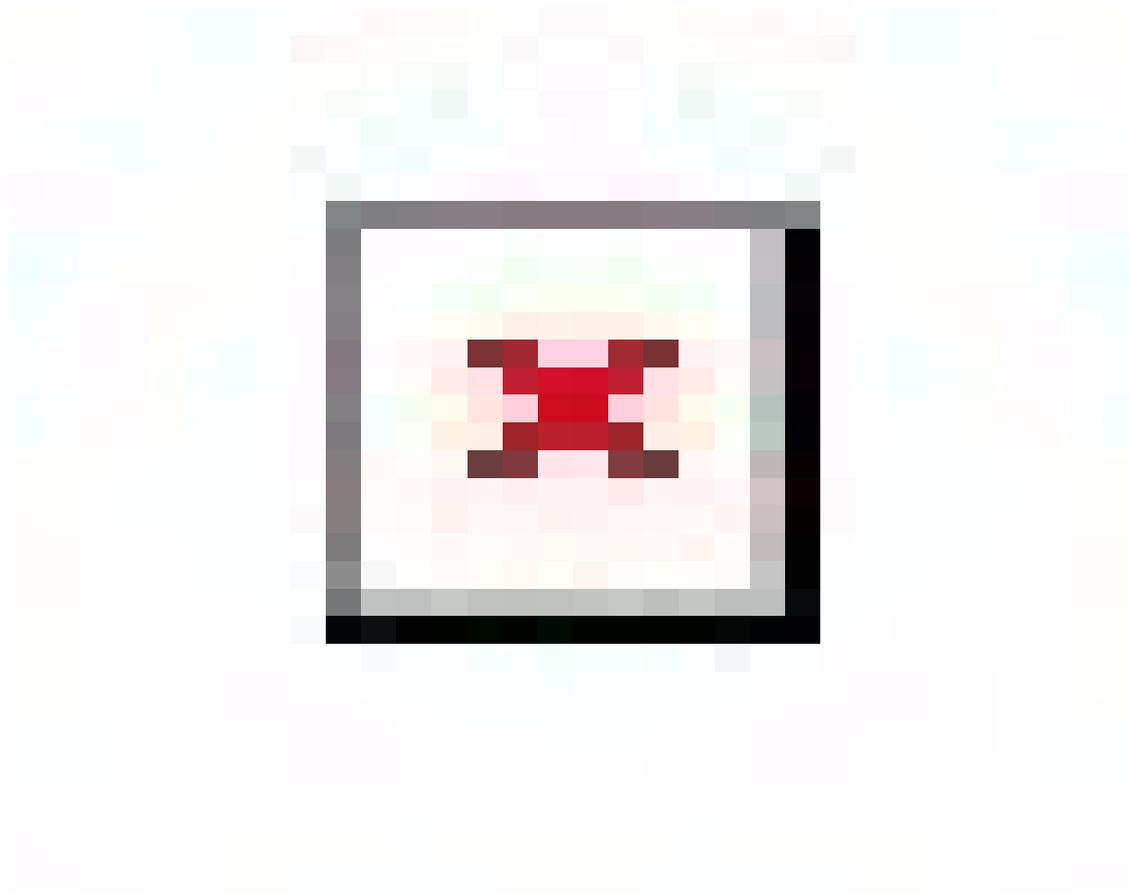Fig. S2. TGA curve for the z700.

Fig. S3. (a)-(c) 2D reflection loss curves, (d)-(f) 3D reflection loss curves, (g)-(i) 3D reflection loss projection diagrams. The above materials are relevant parameters at the same temperature under different filling rates, which are 10%, 15%, and 20%, respectively.
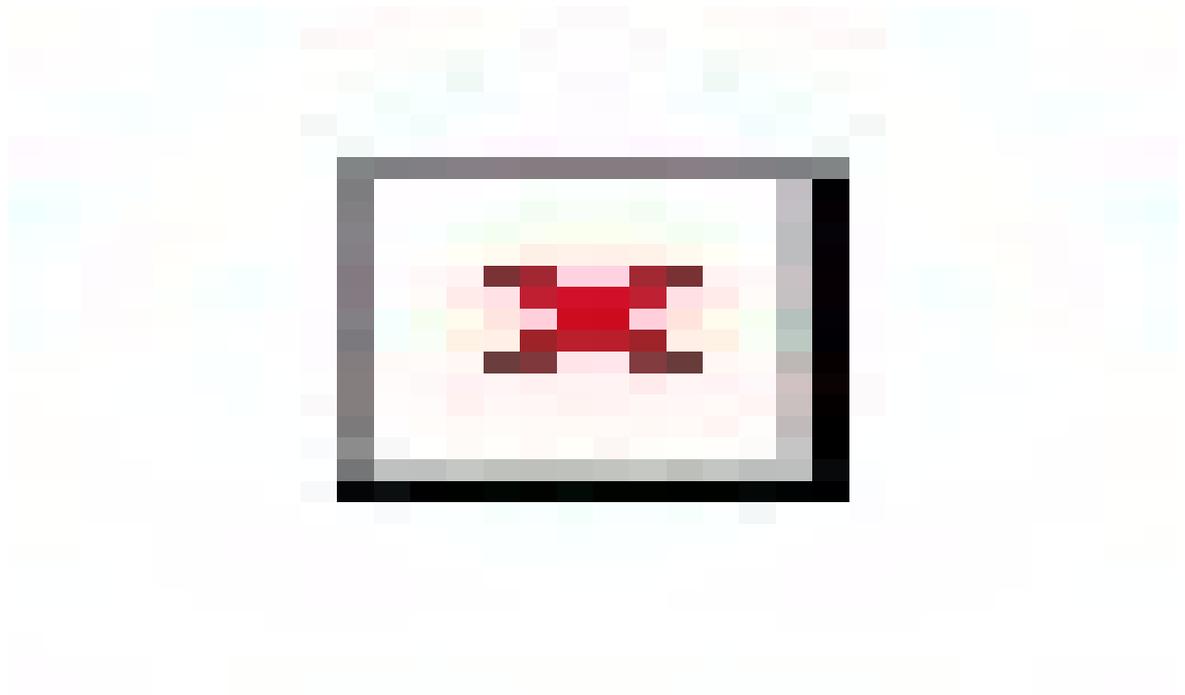
Fig. S4. Reflection loss (RL) curves at 700 °C under a fixed loading ratio of 15%, comparing different mass ratios of cobalt nitrate hexahydrate to a constant amount of 2-methylimidazole. Panels (a–c), (d–f), (g–i), and (j–l) correspond to mass ratios of 2:32, 4:32, 6:32, and 8:32, respectively.
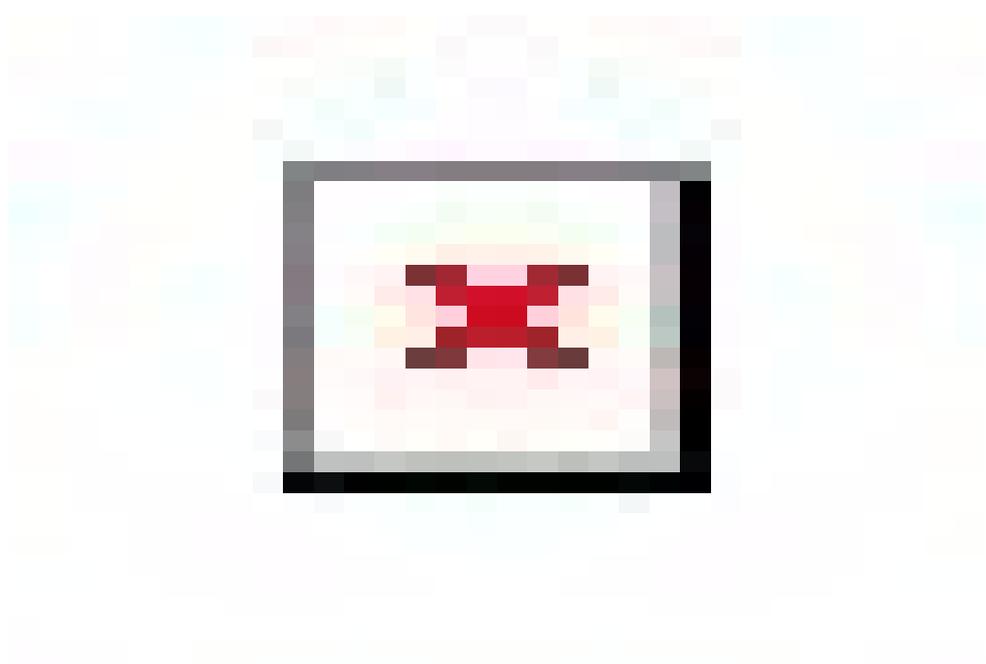
Fig. S5. Standardized Parameters for Z600, Z700, and Z800 Samples (RL/Thickness/Filler Ratio)
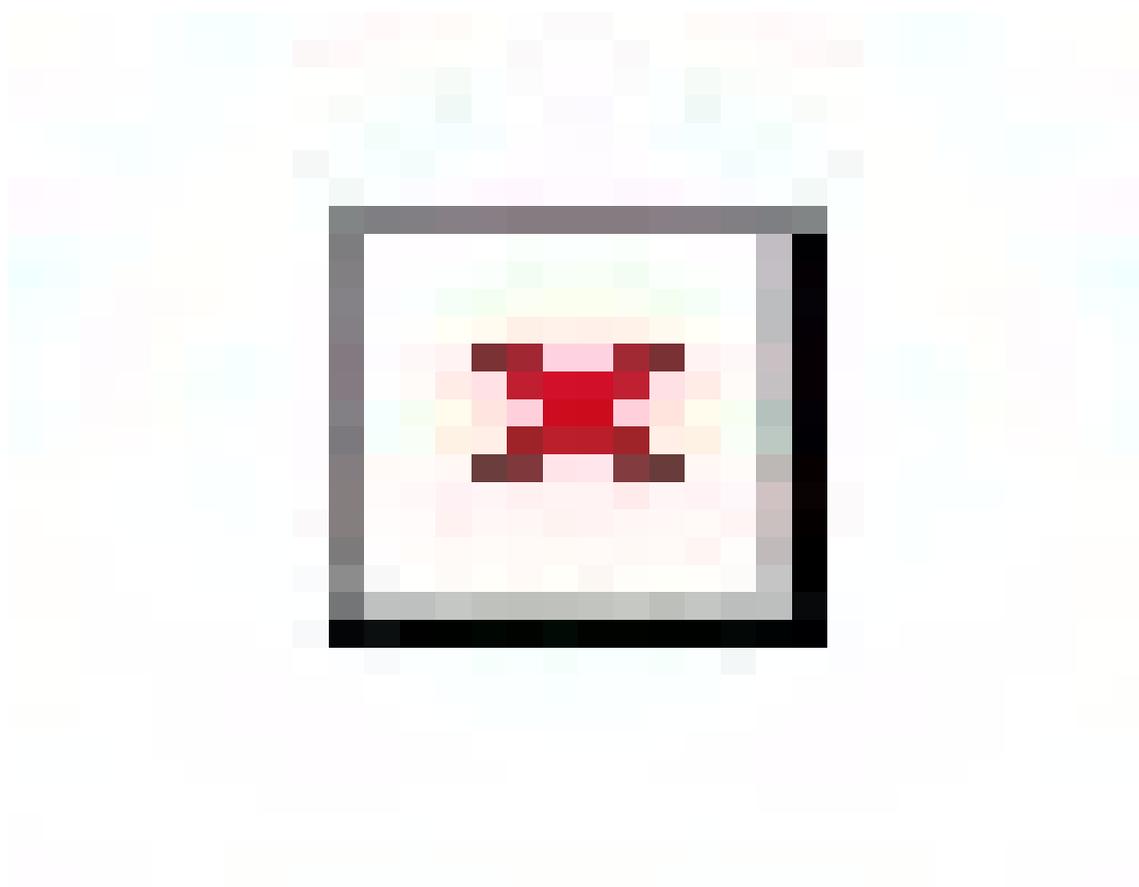
Fig. S6. (a), (b) and (c) corresponding Cole-Cole semicircle plots at different temperatures (ZX/X, X=600 °C, 700 °C, 800 °C), respectively (d) Co values at different temperatures.