Supporting information

Synthesis of hierarchical cobalt dendrites based on nanoflakes self-

assembly and their microwave absorption properties

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Fig. S1 Microwave reflection losses of Co dendrites/paraffin composites with different loadings of Co and thicknesses: (a) 55 wt%, (b) 65 wt%, and (c) 72 wt%; (d) Comparision of microwave reflection losses of the three samples with the same thickness of 1.5 mm.



Fig. S2 Frequency dependence of the complex permittivity and the complex permeability of Co dendrites/paraffin composites with different loadings of Co: (a) real part and (b) imaginary part of the complex permittivity; (c) real part and (d) imaginary part of the complex permeability.



Fig. S3(a) Frequency dependence of $\mu''\mu'^{-2}f^{-1}$ of Co dendrites/paraffin composites with different loadings of Co; dielectric loss tangent and magnetic loss tangent of Co dendrites/paraffin composites: (b) 55 wt%; (c) 65 wt%; (d) 72 wt%.



Fig. S4 Attenuation constant of the Co dendrites/paraffin composites with different Co loadings: (a) 55 wt%, (b) 65 wt%, and (c) 72 wt%.