A novel sponge-like 2D Ni/derivative heterostructure to strengthen microwave absorption performance

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Figure S1 Magnetization hysteresis loops of Ni/derivative heterostructures. The inset shows an enlarged image.



Figure S2 (a) Dielectric loss and (b) magnetic loss of Ni/derivative heterostructures



Figure S3 (a) Cole–Cole semicircle curve of Ni-600 samples, (b) C_0 values of different Ni/derivative heterostructures. Inset in Figure S3b is the enlarged image.



Figure S4 The μ'' - μ' curves of different Ni/derivative heterostructures.



Figure S5 The frequency and thickness-dependent impedance match Δ of Ni-600 paraffin composite with different Ni-600 contents: (a) 30 wt%; (b) 40 wt%; (c) 50 wt%; (d) 60 wt%.



Figure S6 Electromagnetic parameters (complex permittivity and permeability) of paraffin composites with different Ni-600 contents: (a) 30 wt% Ni-600; (b) 40 wt% Ni-600; (c) 50 wt% Ni-600 and (d) 60 wt% Ni-600. Insets are the corresponding tangent loss.