Supporting Information

Microwave absorption enhancement by adjusting reactant amounts ratios and filler contents based on 1D K-MnO₂@PDA and poly(vinylidene fluoride) matrix

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Figure S1. (a) Real and (b) imaginary parts of relative complex permittivity; (c) real and (d) imaginary parts of relative complex permeability; (e) dielectric loss and (f) magnetic loss for various reactants amounts ratios composites in the frequency range of 2–18 GHz.



Figure S2. The corresponding plots of ε' versus ε'' for (a) pure PVDF, (b) 4:0, (c) 4:0.375, (d) 4:0.75, (e)4:1.5, (f) 4:3 reactants amounts ratio composites with 20 wt% filler content.



Figure S3. (a) Real and (b) imaginary parts of relative complex permittivity; (c) real and (d) imaginary parts of relative complex permeability; (e) dielectric loss and (f) magnetic loss for various filler contents composites in the frequency range of 2–18 GHz.



Figure S4. The corresponding plots of ε' versus ε'' for composites with filler contents of (a) 5%, (b) 10%, (c) 20%, (d) 30%.