Graphene/polyaniline nanorod arrays: Synthesis and excellent electromagnetic absorption properties

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**Fig. S1** SEM image of PANI nanorods

**Fig. S2** The tangent loss of G/PANI nanorod arrays and PANI nanorods.
Fig. S3 The theoretical simulation results for the relative complex permittivity. (a) Real part of the relative complex permittivity of PANI nanorods, (b) imaginary part of the relative complex permittivity of PANI nanorods, (c) real part of the relative complex permittivity of G/PANI nanorod arrays, and (d) imaginary part of the relative complex permittivity of G/PANI nanorod arrays.
**Fig. S4** EDS patterns of G/PANI nanocomposites with different added amount of aniline into the reaction system. (a) 0.1 mL, (b) 0.2 mL and (c) 0.4 mL.

The EDS analyses of different samples were performed six times at different places, and the molar ratios of graphene to aniline were determined by calculating the mean value of the obtained results.