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Electronic Supplementary Information (ESI)

A novel Fe_3C/graphitic carbon composite for electromagnetic wave absorption properties in C-band

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1. Raman spectra of three composites

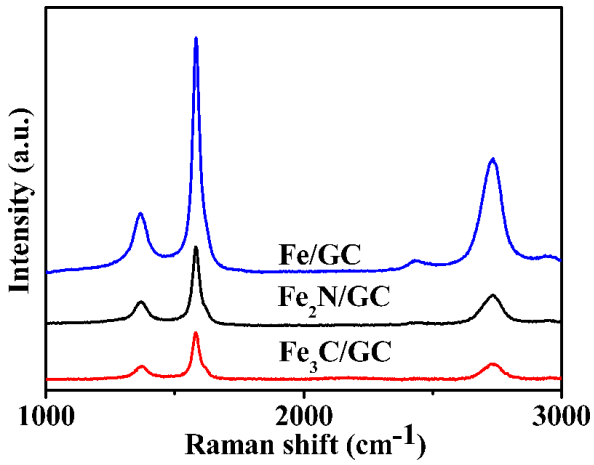

Fig. S1. Raman spectra of (a) Fe_3C/GC, (b) Fe/GC and (c) Fe_2N/GC composites.

2. Magnetic hysteresis curves of three composites

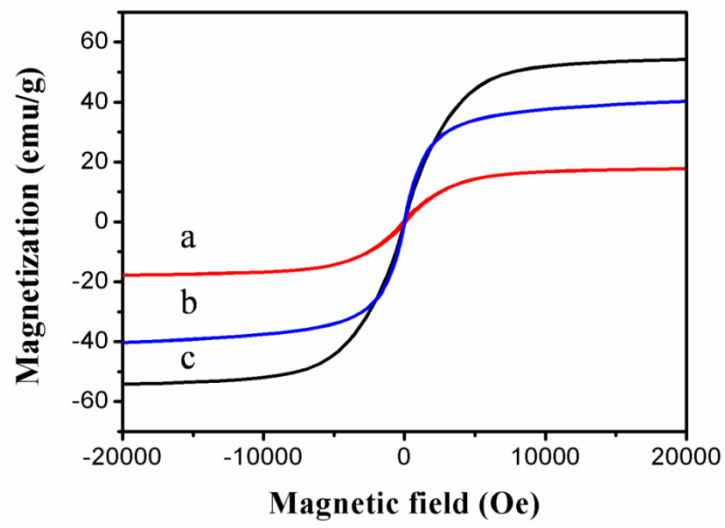

Fig. S2. Magnetic hysteresis curves of the composite at 300K: (a) Fe_3C/GC, (b) Fe_2N/GC and (c) Fe/GC.

3. TG analyses results of three samples

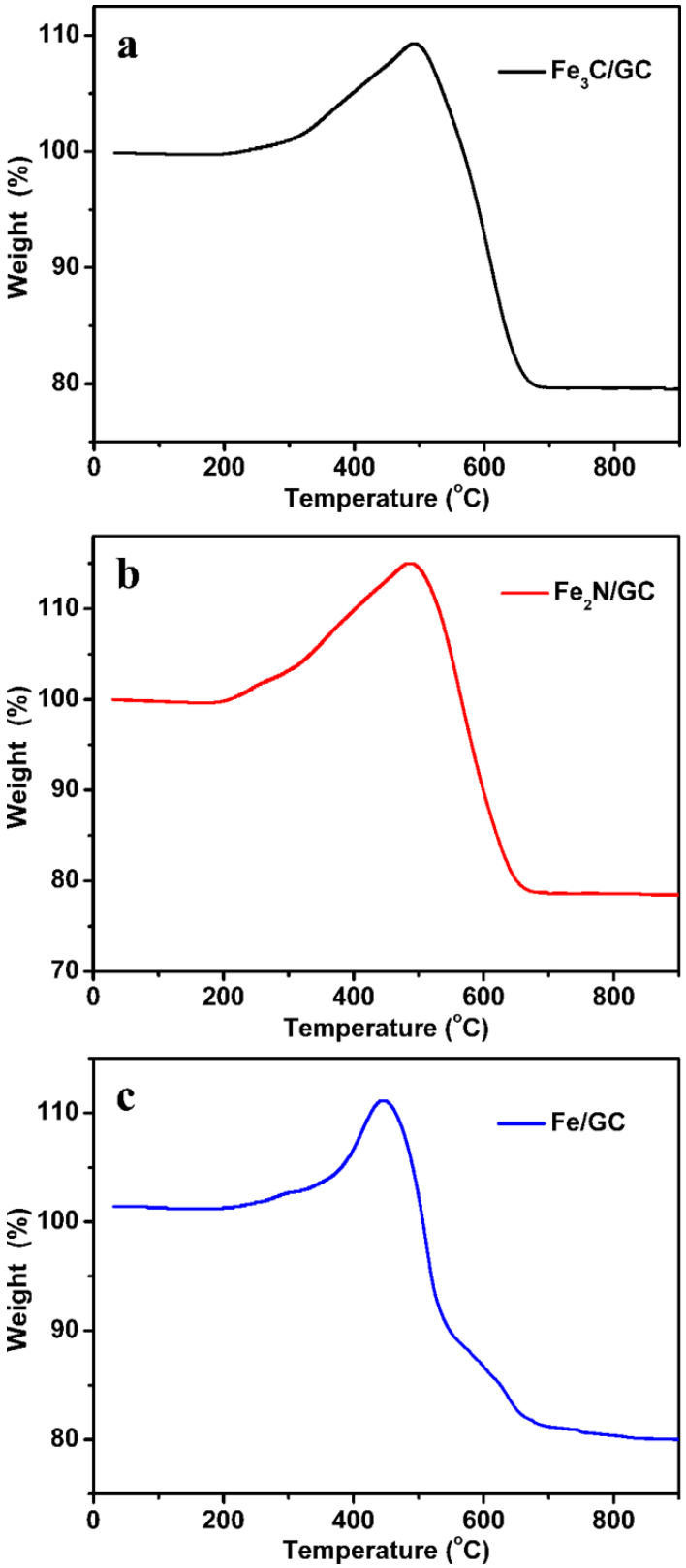

Fig. S3. TG curves of the (a) Fe_3C/GC, (b) Fe/GC and (c) Fe_2N/GC composites tested in air.

Table S1 TG analyses results derived from Fig. S3.

Sample	Final residual mass after TG tests (Fe_2O_3, %)	Fe content (%)	Iron species content	GC content (%)
Fe_3C/GC	79.6	55.7	59.7 % Fe_3C	40.3
Fe_2N/GC	78.5	55.0	61.9 % Fe_2N	38.1
Fe/GC	79.8	55.9	55.9 % Fe	44.1