Electronic Supplementary Material (ESI) for Journal of Materials Chemistry C.

Supporting Information

Multicomponent Fe-based composites derived from oxidation and reduction of Prussian blue towards efficient electromagnetic wave absorption

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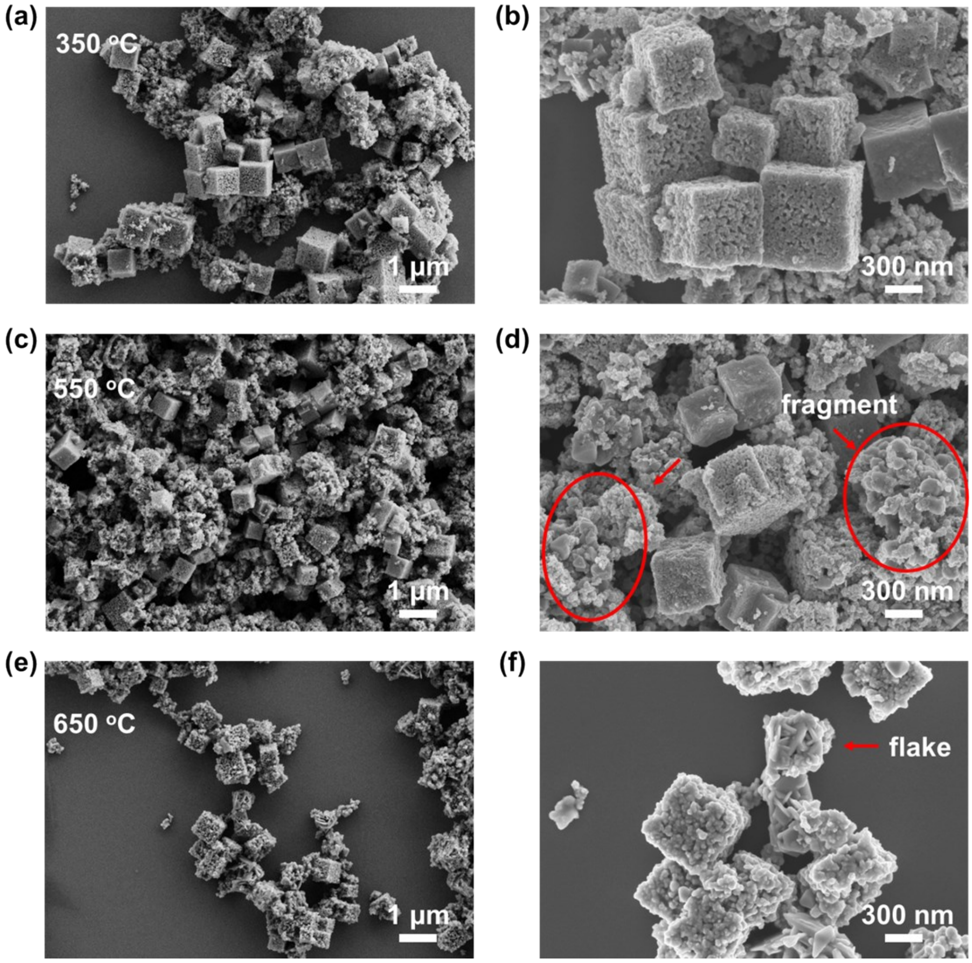

Fig. S1 SEM images of Fe_2O_3 derived from Prussian blue at (a,b) 350 °C, (c,d) 550 °C and (e,f) 650 °C.

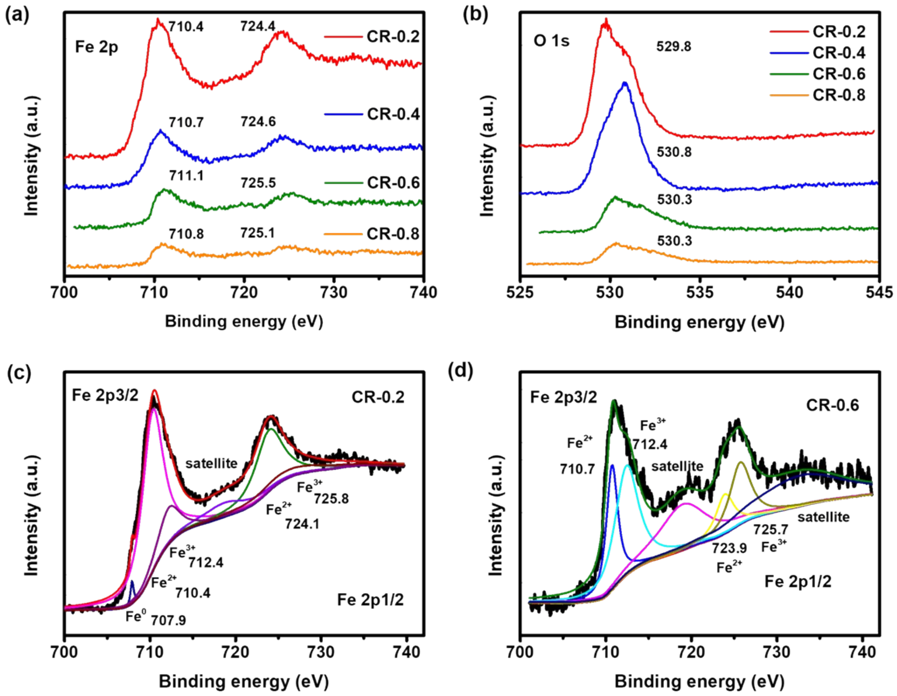

Fig. S2 (a) Fe 2p and (b) O 1s XPS spectra of reduced products. High resolution Fe 2p XPS spectra of (c) CR-0.2 and (d) CR-0.6.

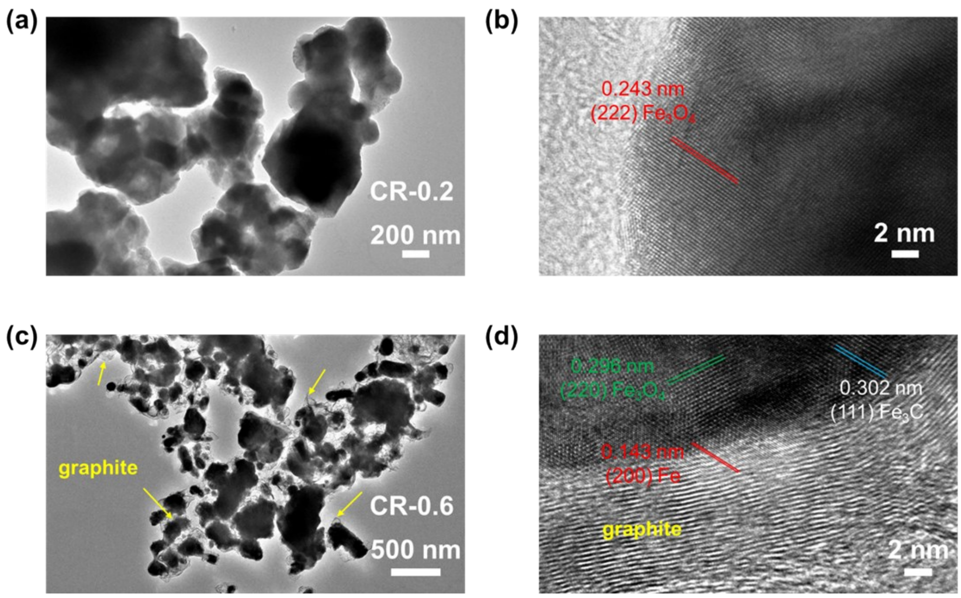

Fig. S3 (a) TEM image and (b) HRTEM image of CR-0.2. (c) TEM image and (d) HRTEM image of CR-0.6.

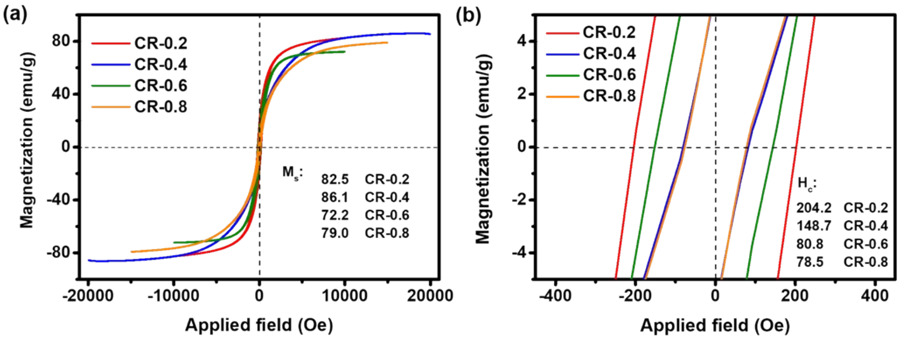

Fig. S4 (a) Magnetic hysteresis loops and (b) enlarged hysteresis loops of reduced products.

Table S1 Comparison of microwave absorption performance of similar microwave absorbing materials

samples	**filling ratio (wt%)**	**thickness (mm)**	**RL (dB)**	**EAB (GHz)**	**Ref.**
FeCo@C@CNGs	50	2	-67.8	5.3	1
Fe_3Si/SiC@SiO_2	30	2.4	~-18	5.4	2
Fe/Fe_3O_4@TCNFs@TiO_2	15	1.6	-44.8	3.7	3
CN-Fe_3C	10	2	-46.78	5.01	4
Fe_3O_4@C	60	2	-28.9	5.5	5
ZnNiC	50	1.6	-66.1	4.4	6
Fe_3O_4@NPC@rGO	25	2	-72.6	5.5	7
Co/N/C@MnO_2	15	3.7	-58.9	5.5	8

CoNi@NC@rGO	25	2.5	-	6.7	9
Fe-NiS_2/NiS	20	1.7	~-18	3.8	10
(SiC/Fe)@C	25	1.95	-63.44	7	11
Mo_2N@CoFe@C/CNT	20	2	-53.5	5	12
CR-0.6	40	1.5	-15.27	5.44	this work

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