Supplementary Information

Construction of OH-functionalized MWCNTs/solid waste composites with tubular/spherical heterostructures for the enhanced electromagnetic wave absorption property

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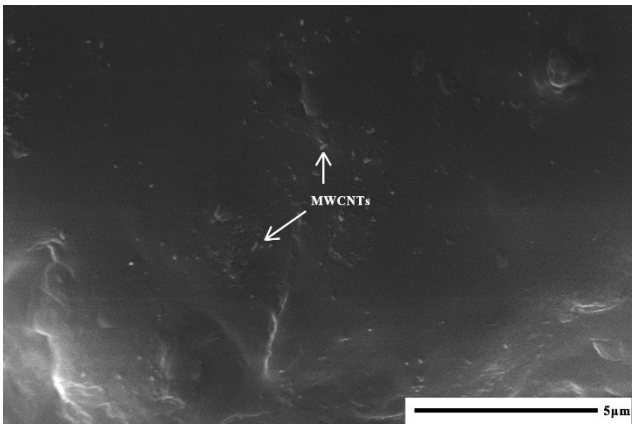

Fig.S1. SEM image of MFACs, in which FAC was broken and the MWCNTs located inside the cenospheres.

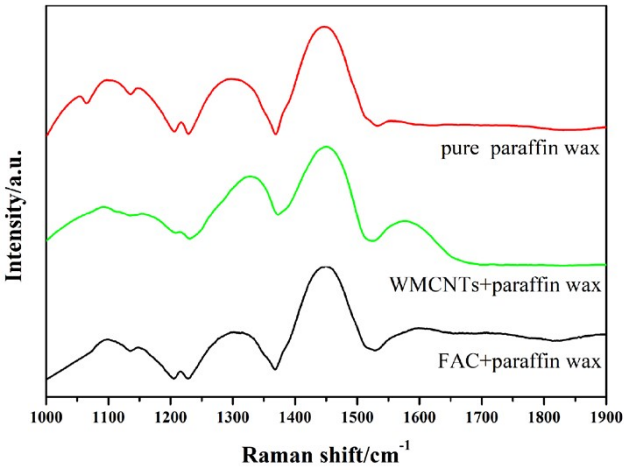

Fig.S2. Raman spectra of different samples.

Table S1. Typical C-based composites for EM wave absorption.

Sample	RL_{min} (dB)	Optimum Frequency (GHz)	Frequency range (RL≤-10dB)	Refs.
CNT/Fe nanocapsulates	-25	11	--	50
Porous Co/C Nanocomposites	-35.3	5.8	5.80 (8.40 −14.20)	51
Co/CNTs	-36.5	4.1	1 (3.6-4.6)	52
porous carbon/Co nanocomposites	-40	4.2	0.7 (about 3.8-4.5)	53
$CoFe_2O_4$ hollow sphere/graphene composites	-18.5	12.9	3.7 (11.3-15)	54
Fe_3O_4/C core-shell nanospindles	-38.8	11	2.2 (about 9.8-12)	55
porous RGO/γ-Fe_2O_3 composites	-39	14.78	3.5 (12.5-16)	56
nano-Fe_3O_4 compact-coated CNTs	-43.0	15.4	8.3	57
RGO/ZnO hollow spheres	-45.05	9.7	3.3 (8.8-12.1)	58
MWCNTs/FAC composites	-44.67	4.9	3.62 (10.68-14.30)	This work

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