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PMMA-Assisted Electrospinning Uniformly Incorporates Magnetic Particles into a Carbon Nanomaterials for Efficient Microwave Absorption

Xin Kou[1,2▽], Xijin Zhao[1▽], XingYao Xiong[3▽], Shenglin Yuan[1], Hui Huang[1], Xiangcheng Li[2*], Yongpeng Zhao[1,2▽*]

[1] *College of Mechanical and Electrical Engineering, Sichuan Agricultural University, Ya'an 625014, China*

[2] *Key Laboratory of High-Temperature Electromagnetic Materials and Structure of MOE, Wuhan University of Science and Technology, Wuhan 430081, PR China*

[3] *College of Electrical Engineering, Sichuan University, Chengdu 610065, China*

*Corresponding authors.

E-mail addresses: zhaoyp@sicau.edu.cn (Y.P. Zhao), lixiangcheng@wust.edu.cn (X. Li)

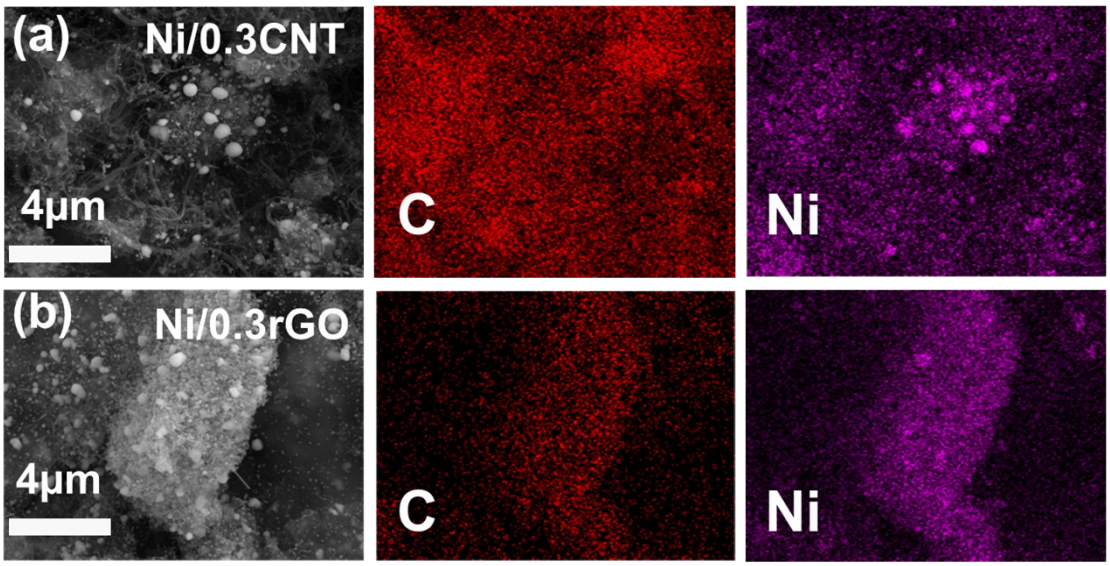

Figure.S1 Mapping of elements corresponding to (a) Ni/0.3CNT and (b) Ni/0.3rGO.

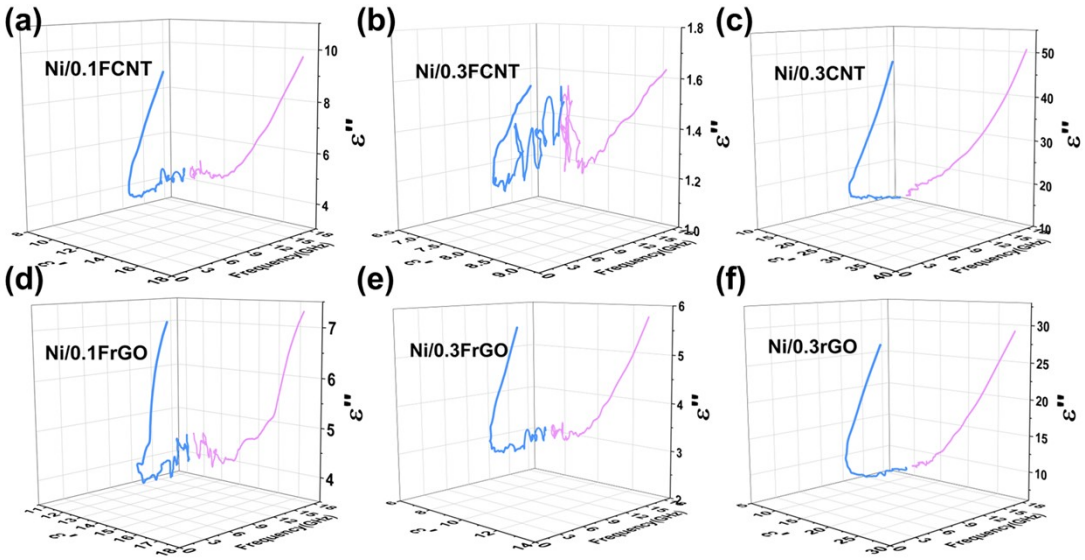

Figure.S2 Three-dimensional Cole-Cole diagrams of (a) Ni/0.1FCNT, (b) Ni/0.3FCNT, (c) Ni/0.3CNT, (d) Ni/0.1FrGO, (e) Ni/0.3FrGO, (f) Ni/0.3rGO.

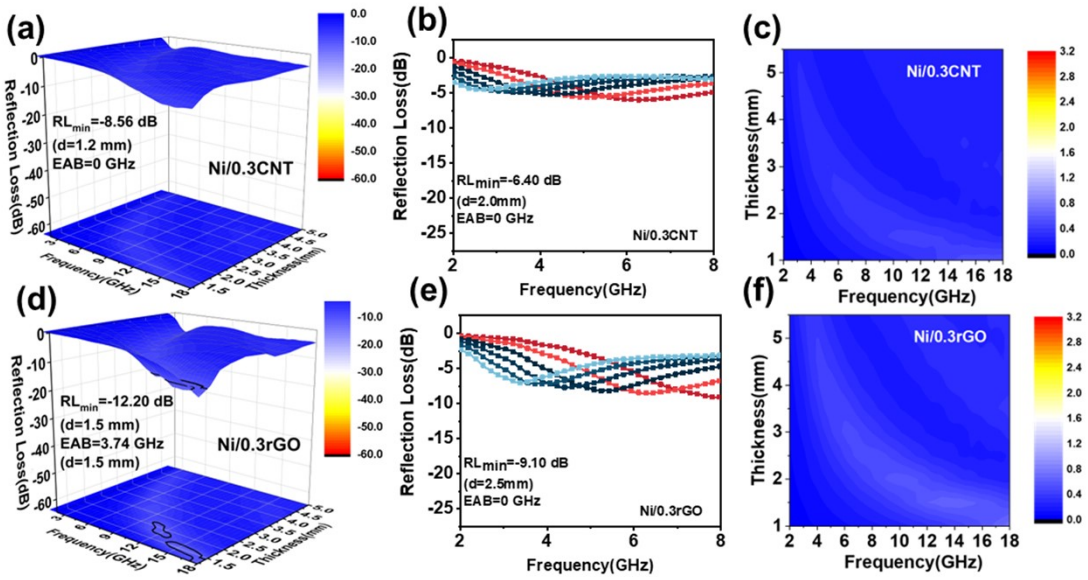

Figure. S3 The 3D reflection loss values for (a) Ni/0.3CNT, (d) Ni/0.3rGO; The 2D reflection loss values in low frequency for (b) Ni/0.3CNT, (e) Ni/0.3rGO; the Z values contour maps from 2 to 18 GHz for (c) Ni/0.3CNT, (f) Ni/0.3rGO.

Samples	Filling ratio	Minimum RL at low frequency			Ref.
		RL_{min} (dB)	Matching thickness (mm)	Matching frequency (GHZ)	
Ni/C porous nanofibers	25wt%	−69.50	3.2	7.80	S1
BMN-CNT	15wt%	-19.00	3.0	8.00	S2
Ni-N@C	11.1 wt%	-24.90	3.5	5.90	S3
Ni@PRM-NC	35wt%	-39.50	3.5	7.10	S4
rGO/Ni	10wt%	-30.71	4.0	6.00	S5
CNCFs-2	30wt%	-47.00	3.9	6.20	S6
GHN-10	10wt%	-33.10	4.9	4.40	S7
Ni/0.1FrGO	15wt%	-55.30	3.0	6.95	This work
Ni/0.3FrGO	15wt%	-50.36	5.0	5.08	This work

Table S1 Properties of nickel-carbon-based microwave absorbers

References

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