

Supporting Information

CNT@NiO/natural rubber with excellent impedance matching and low interfacial thermal resistance toward flexible and heat-conducting microwave absorption application

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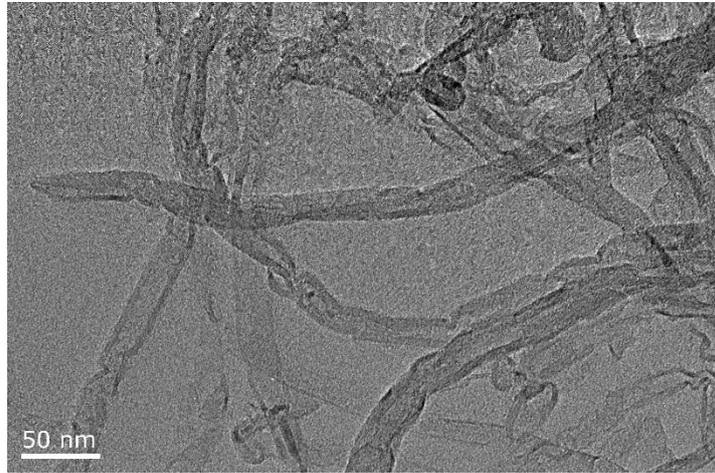


Fig. S1 TEM image of CNTs.

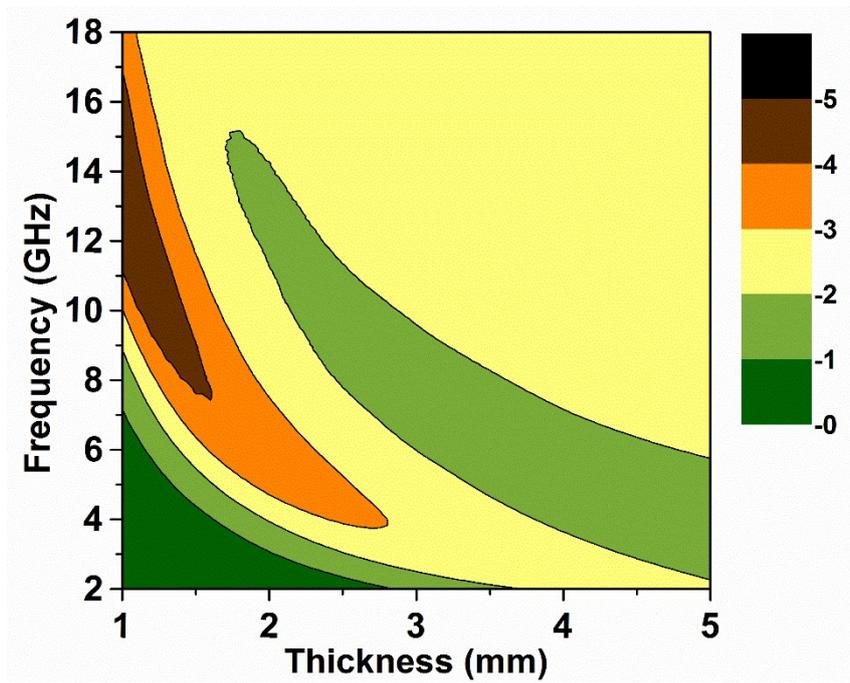


Fig. S2 Two-dimensional representations of the reflection losses for CNT.

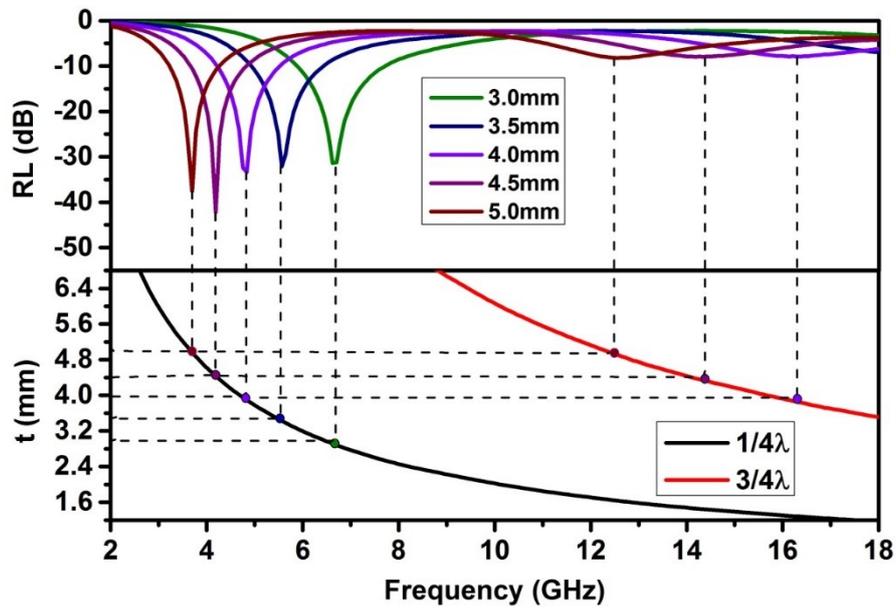


Fig. S3 comparison of various absorber thickness (t_m) for sample CNT@100-NiO with simulated thickness under quarter and three quarter condition at the frequency of minimum RL values (f_m).

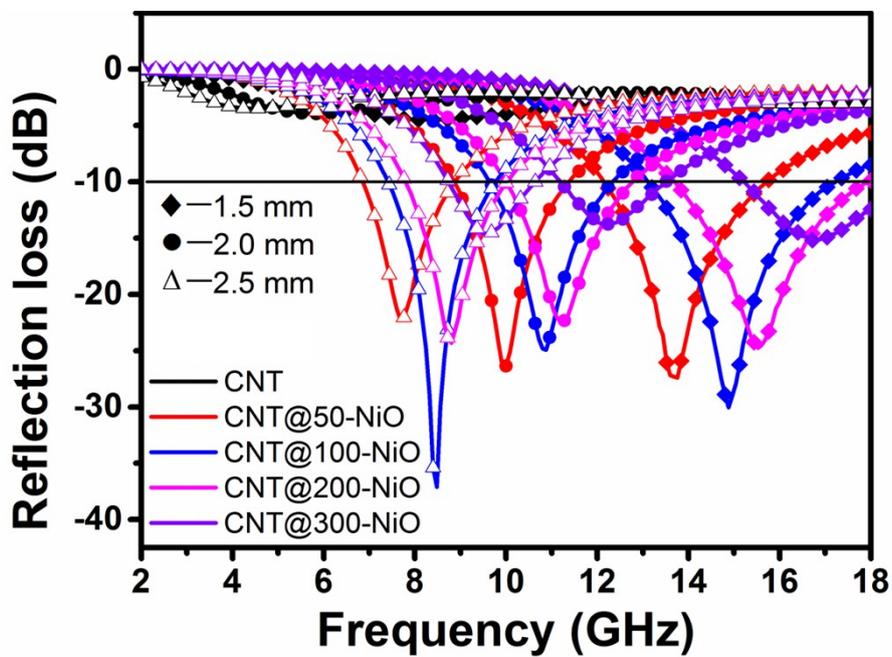


Fig. S4 Microwave RL curves of the NiO/CNT composites with the thickness of 1.5, 2.0 and 2.5 mm.

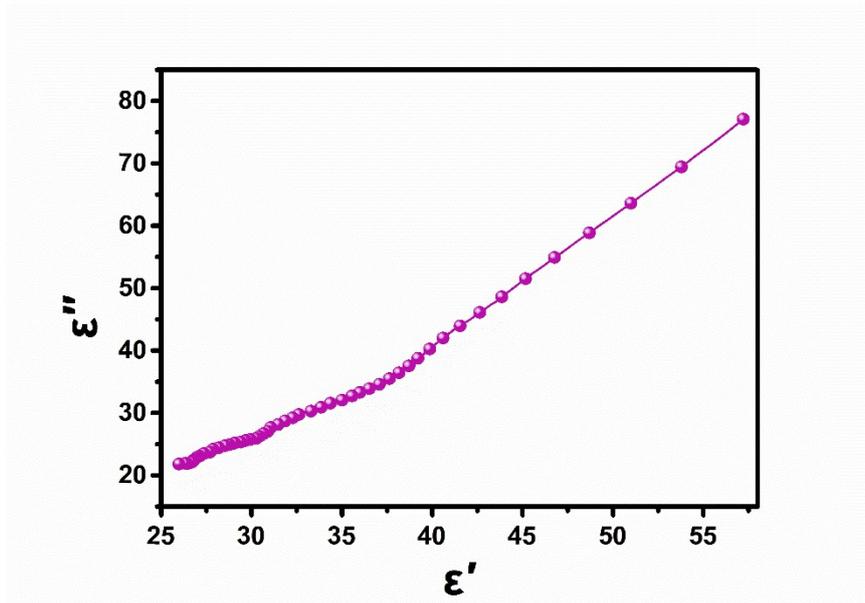


Fig. S5 Typical Cole-Cole semicircles for CNT.

Table 1 Microwave absorption performance of absorber contain NiO

Absorber	Loading (%)	Thickness (mm)	RL _{min} (dB)	EABW (GHz)	Ref
SiC/Ni/NiO/C	20	2.5	-50.5	2.96	[S1]
NiO/graphene	25	1.7	-59.6	4.24	[S2]
NiO	30	7.0	-65.1	3	[S3]
Graphene/Fe ₃ O ₄ /SiO ₂ /NiO	25	1.8	-51.5	5.1	[S4]
Microporous Ni/NiO	50	1.5	-49.1	5.8	[S5]
Ni/NiO/C	10	2.5	-33.9	5.7	[S6]
NiO@SiO ₂ @graphene	25	3.0	-43.8	5.8	[S7]
CNT@NiO	10	1.3	-43.6	4.24	Current work

EABW: (efficient microwave absorption bandwidths (RL below -10 dB))

References

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