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

Electronic Supplementary Information

Ni-Co Prussian blue analogue/graphene aerogel: A green synthesis approach for high-performance electromagnetic wave absorption and radar stealth applications

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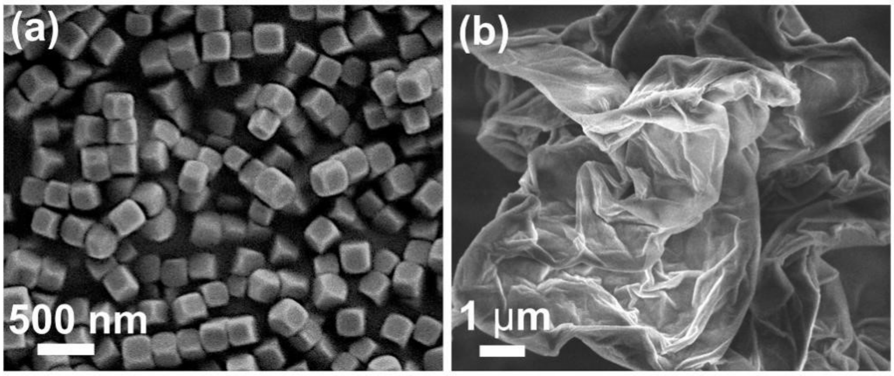

Fig. S1. SEM images of Ni-Co PBA (a) and GO (b).

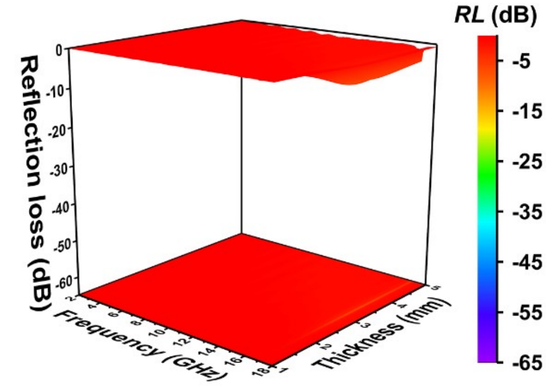

Fig. S2. 3D *RL* values plot of Ni-Co PBA.

Table S1 EMW absorption performance of some graphene-based composites in previous reports and this work.

Samples	Minimum RL (Frequency, thickness)	EAB < -10 dB (GHz, range, thickness)	Ref.
Co-doped Ni-Zn ferrite/Graphene	-58.3 dB (5.2 GHz, 4.6 mm)	4.8 GHz (7.2-12.0 GHz), 3.0 mm	[1]
Fe_3O_4-C/Reduced graphene oxide	-60.5 dB (4.8 GHz, 3.6 mm)	5.5 GHz (11.2-16.7 GHz), 1.5 mm	[2]
Co/N-doped graphene/Carbon nanotubes	-65.5 dB (17.5 GHz, 1.5 mm)	4.3 GHz (10.5-14.8 GHz), 2.0 mm	[3]
Fe_3O_4/Graphene	-37.5 dB (2.8 GHz, 6.5 mm)	3.8 GHz (12.6-16.4 GHz), 1.6 mm	[4]
Fe_3O_4-Reduced graphene oxide	-49.5 dB (6.3 GHz, 3.4 mm)	2.9 GHz (14.6-17.5 GHz), 1.3 mm	[5]
Ni/Carbon nanotube/Graphene	-45.5 dB (6.2 GHz, 5.0 mm)	5.6 GHz (11.9-17.5 GHz), 2.5 mm	[6]
Polyaniline/Graphene aerogel	-42.3 dB (11.2 GHz, 3.0 mm)	3.2 GHz (8.7-11.9 GHz), 3.0 mm	[7]
ZnO/Reduced graphene oxide foam	-27.8 dB (9.6 GHz, 4.8mm)	4.2 GHz (8.2-12.4 GHz), 4.8 mm	[8]
NiAl-layered double hydroxide/graphene	-41.5 dB (17.8 GHz, 1.4 mm)	4.4 GHz (13.4-17.8 GHz), 1.6 mm	[9]
Ni-Co PBA/GA	-62.3 dB (13.3 GHz, 2.3 mm)	5.6 GHz (12.4-18.0 GHz), 2.1 mm	This work

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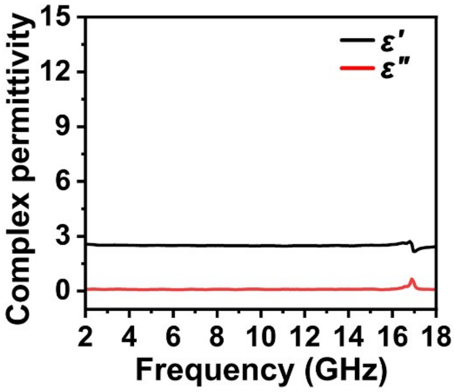

Fig. S3. The complex permittivity of Ni-Co PBA.

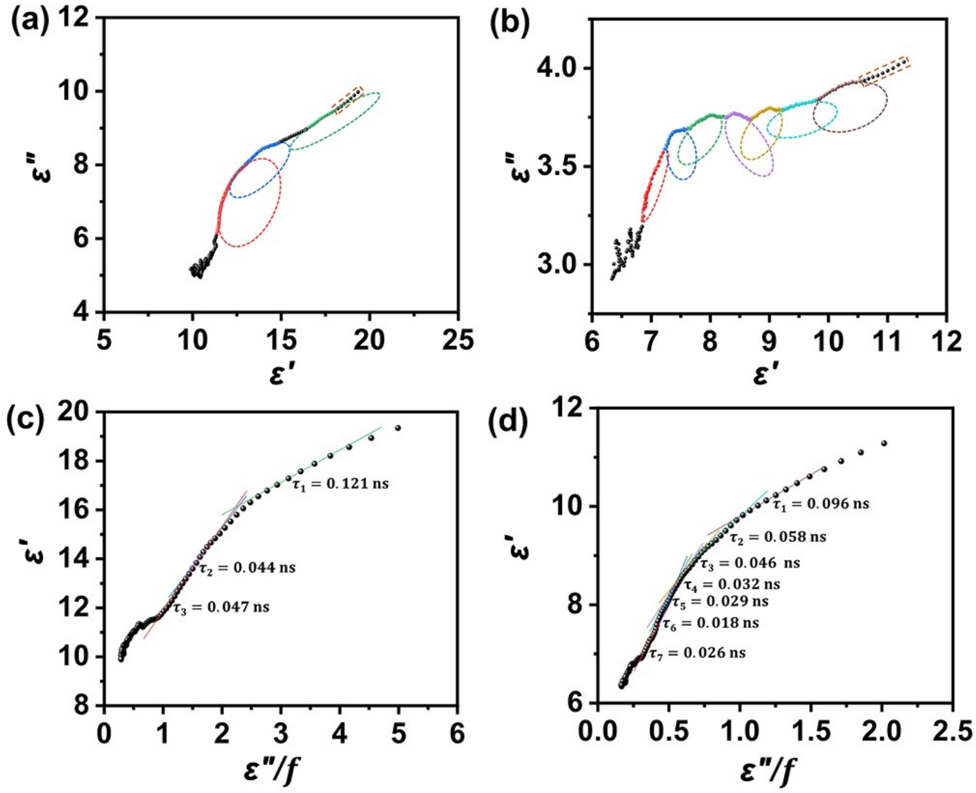

Fig. S4. The plots of ε' versus ε'' for GA (a) and Ni-Co PBA/GA (b), and the corresponding relationships between ε' and ε''/f of GA (c) and Ni-Co PBA/GA (d).

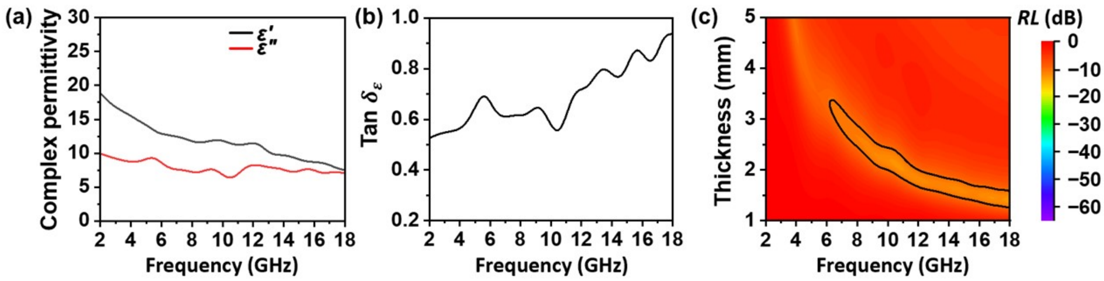

Fig. S5. The ε' and ε'' (a), $\tan\delta_\varepsilon$ (b), and 2D *RL* plots of SB-Ni-Co PBA/GA in the frequency range from 2.0 to 18.0 GHz.

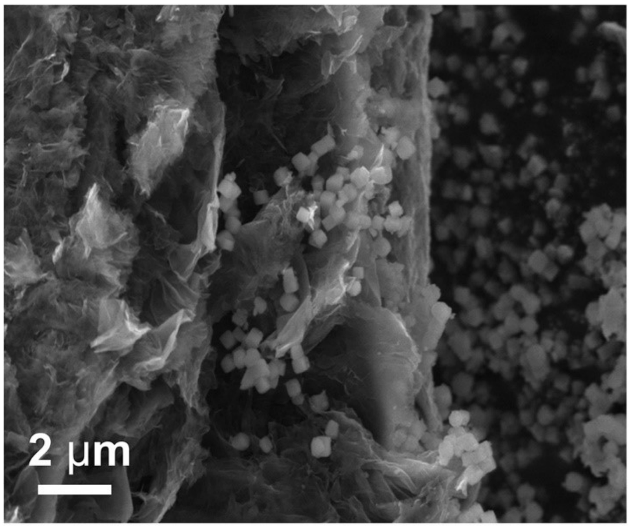

Fig. S6. SEM image of SB-Ni-Co PBA/GA.

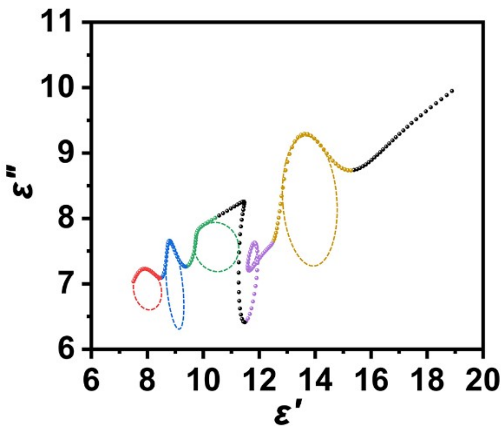

Fig. S7. The plot of ε' versus ε'' for SB-Ni-Co PBA/GA.

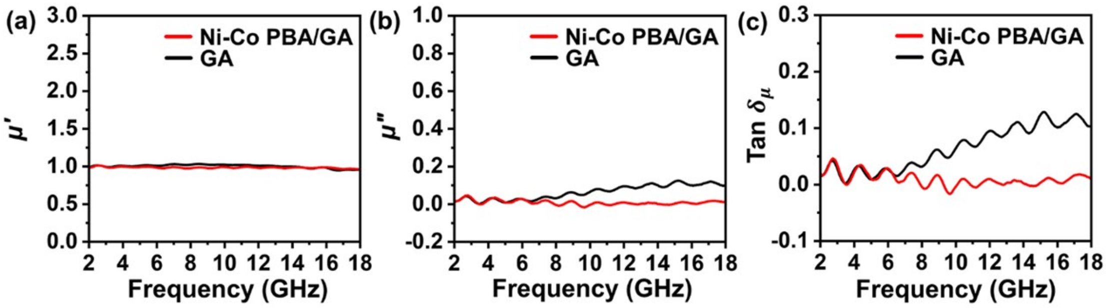

Fig. S8. The μ' (a), μ'' (b), $\tan\delta_\mu$ (c) of GA and Ni-Co PBA/GA in the frequency range from 2.0 to 18.0 GHz.

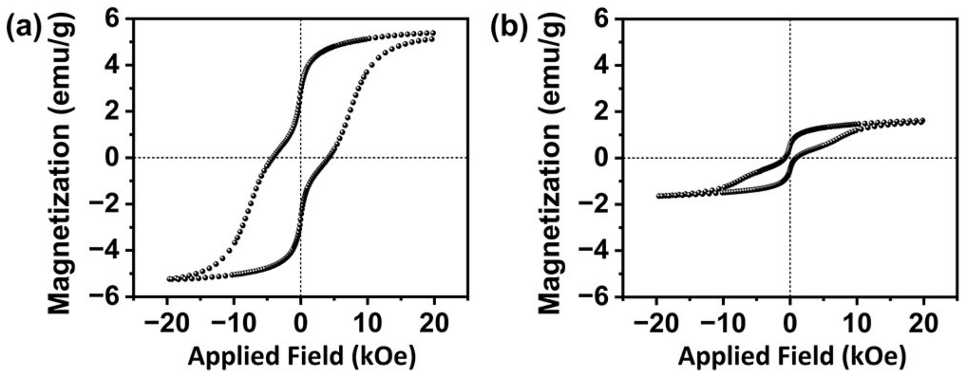

Fig. S9. The magnetic hysteresis loops of GA (a) and Ni-Co PBA (b).

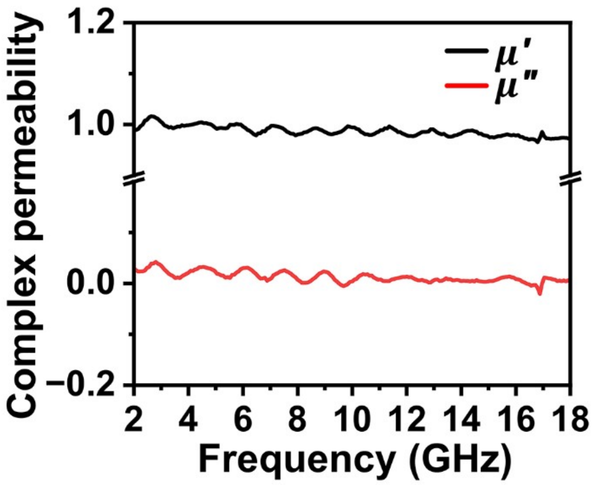

Fig. S10. The complex permeability of Ni-Co PBA.

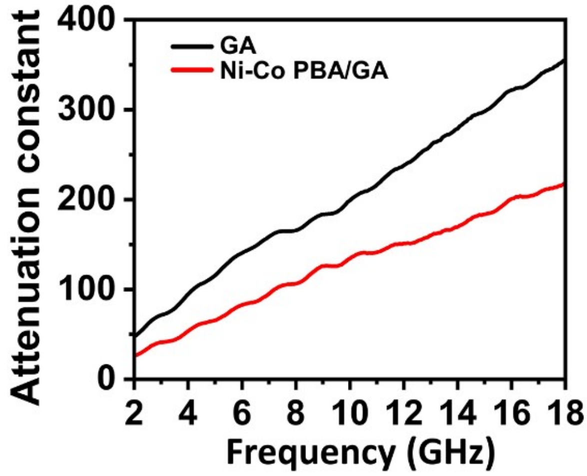

Fig. S11. The attenuation coefficient (α) of GA and Ni-Co PBA/GA.

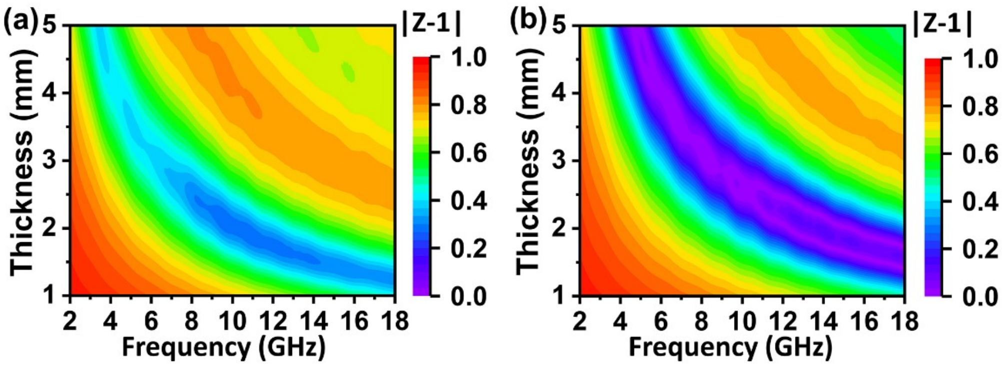

Fig. S12. The |*Z*-1| values of GA (a) and Ni-Co PBA/GA (b).