

Supplementary Information

In situ surface modification engineering for synthesizing nano-absorbers with self-forming heterointerfaces and prominent electromagnetic wave absorption

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Fig. S1 SAED result of (a) S1, (b) S2, (c) S3, and (d) S4.

Fig. S2 The statistical particle size of S1-S4.

Fig. S3 The EDS mapping results of SEM for S2.

Fig. S4 XPS results of S1-S4.

Fig. S5 TEM result of S2 after exposure in air for six months.

Fig. S6 (a) The M_s and H_c of S1-S4; (b) $M-T$ curves of S1-S4.

Fig. S7 (a-d) RL- f curves under different thicknesses of NA1-NA4. The EAB of (e) NA1 and (f) NA2 at different thicknesses.

Table S1 The M_s in this work and other works reported currently.

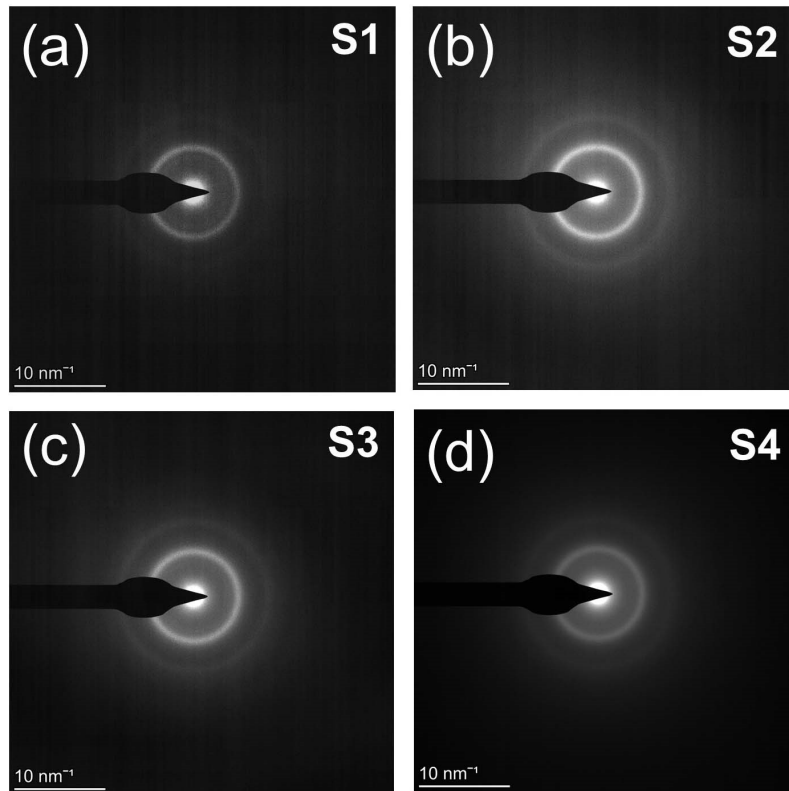


Fig. S1

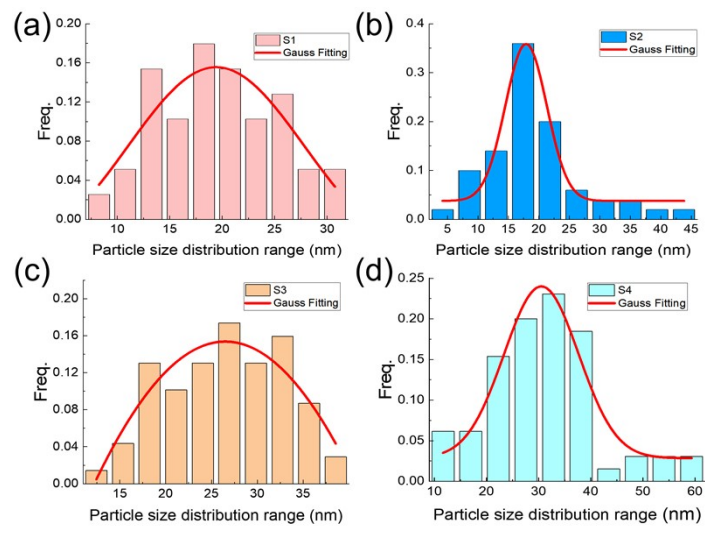


Fig. S2

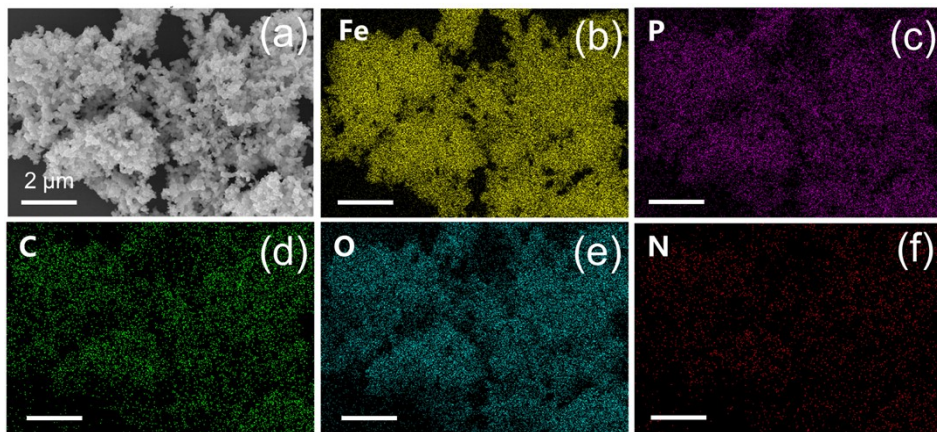


Fig. S3

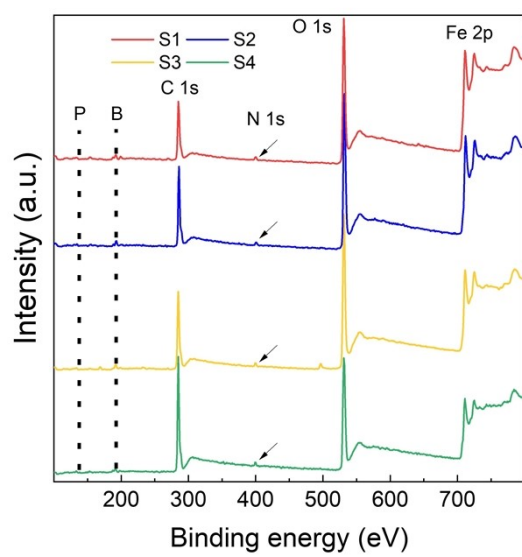


Fig. S4

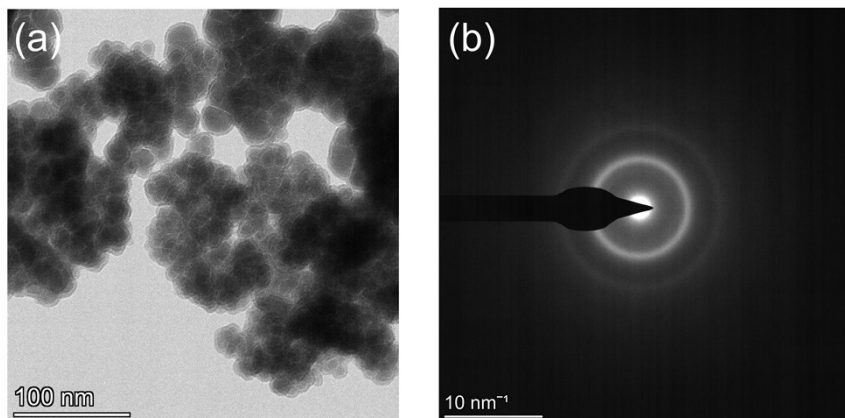


Fig. S5

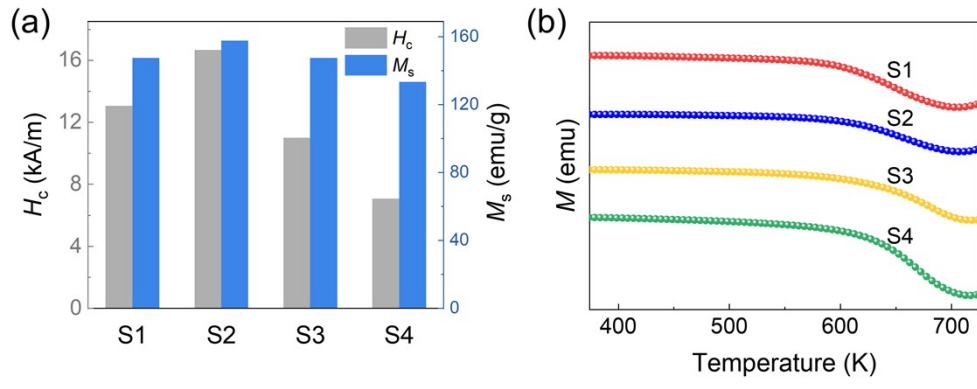


Fig. S6

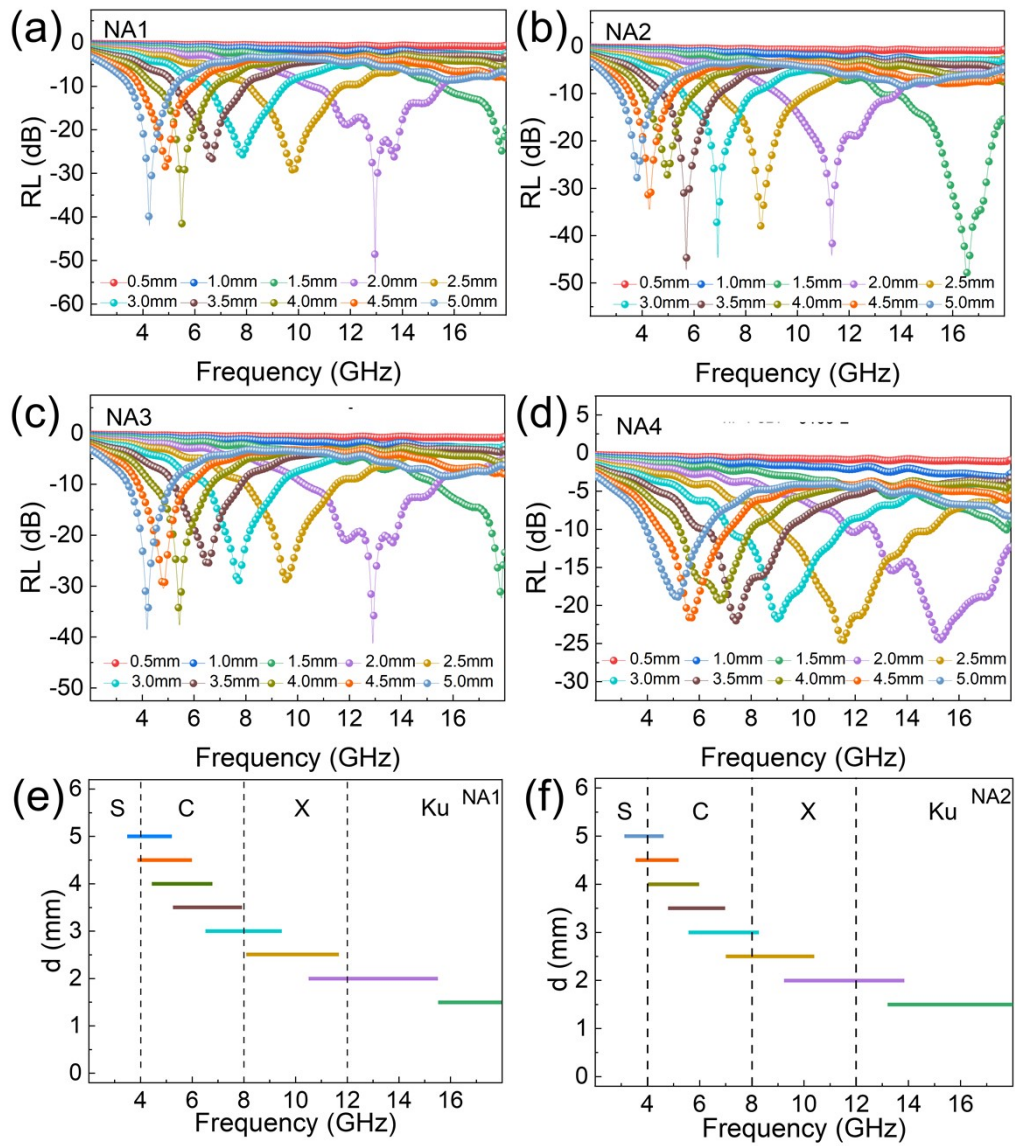


Fig. S7

Table S1

Nano-composites	M_s (emu/g)	Refs.
Fe ₂ (MoO ₄) ₃ @C	15.42	[5]
CoFe ₂ O ₄ /RGO@PVP	54.2	[10]
FeNi/SWCNT	79.3	[27]
Graphene@Fe ₃ O ₄ /SiBCN	20	[28]
Fe-P-2C	24.3	[53]
S2	157	This work