Supporting information

Constructing nitrogen-doped carbon and nickel composite derived from mixed ligands nickel based metal organic framework toward adjustable microwave absorption

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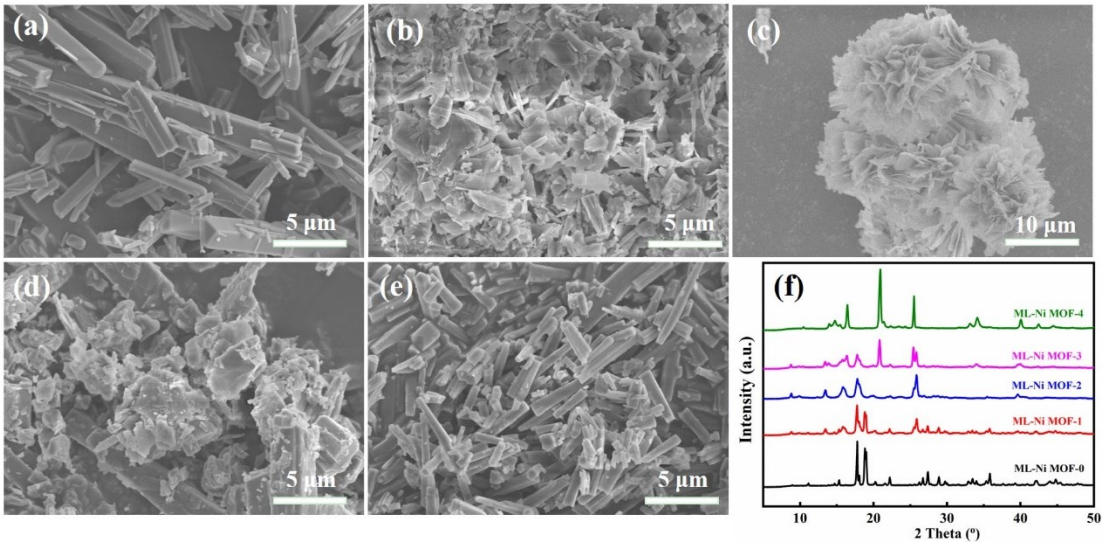

Figure S1 SEM images of (a) ML-Ni MOF-0, (b) ML-Ni MOF-1, (c) ML-Ni MOF-2, (d) ML-Ni MOF-3, (e) ML-Ni MOF-4, and (f) XRD pattern of ML-Ni MOF precursors.

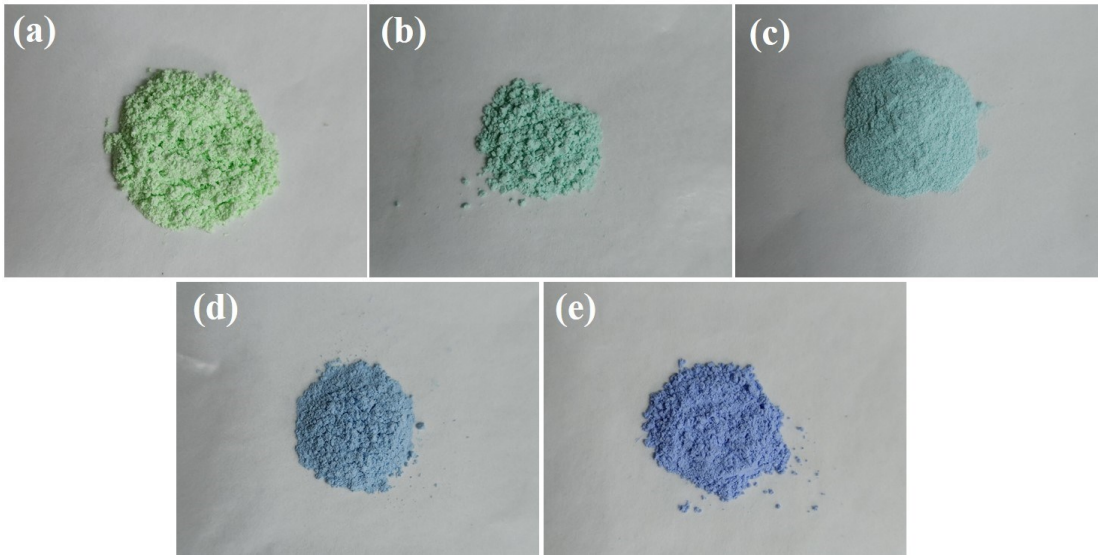

Figure S2 The color of (a) ML-Ni MOF-0, (b) ML-Ni MOF-1, (c) ML-Ni MOF-2, (d) ML-Ni MOF-3, (e) ML-Ni MOF-4 precursors.

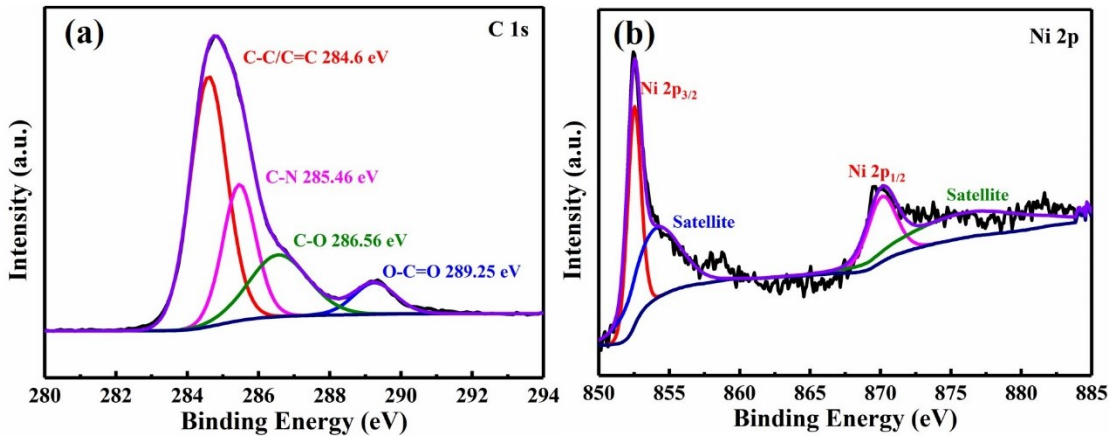

Figure S3 The high resolution XPS spectra of (a) C 1s, and (b) Ni 2p for ML-Ni/C-2 composite

Table S1 The specific surface areas, pore volumes and pore size of all ML-Ni/C composites.

Samples	S_{BET} (m^2 g^{-1})	V_{pore} (cm^3 g^{-1})	D_{pore} (nm)
ML-Ni/C-0	123.45	0.043	3.7
ML-Ni/C-1	140.37	0.293	3.7 and 13.2
ML-Ni/C-2	186.27	0.652	20.5
ML-Ni/C-3	268.25	0.501	3.8 and 9.6
ML-Ni/C-4	149.03	0.445	3.7 and 19.4

Table S2 The contents of C, N, O, and Ni elements for ML-Ni/C composites

Samples	C	N	O	Ni
ML-Ni/C-0	88.99 at.%	---	9.97 at.%	1.04 at.%
ML-Ni/C-1	83.70 at.%	0.78 at.%	15.29 at.%	0.23 at.%
ML-Ni/C-2	87.49 at.%	2.19 at.%	9.37 at.%	0.95 at.%
ML-Ni/C-3	84.21 at.%	4.91 at.%	10.43 at.%	0.45 at.%
ML-Ni/C-4	85.23at.%	4.13 at.%	10.03 at.%	0.62 at.%