## **Supporting Information**

Graphene Oxide-Mediated High-Porosity Ni/C Aerogels through Topological MOFs Deformation for Enhanced Electromagnetic Absorption and Thermal Management

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Fig. S1<sup>†</sup> Digital photos of Ni-MOF aerogel, NCCA, Ni-MOF@GO aerogel, and NCGCAs.



Fig. S2<sup>†</sup> Digital photos of GO and Ni-MOF@GO-2.



Fig. S3<sup>†</sup> tan $\delta_e$  values of NCCA and NCGCAs.



Fig. S4† tan $\delta_m$  values of NCCA and NCGCAs.



**Fig. S5**<sup> $\dagger$ </sup>  $C_0$  values of NCCA and NCGCAs.



Fig. S6†  $\varepsilon_r'$  (a),  $\varepsilon_r''$  (b),  $\mu_r'$  (c),  $\mu_r''$  (d) of NCGCA-2, NCGCA-2-a and NCGCA-2-b; 3D RL maps of NCGCA-2 (e), NCGCA-2-a (f) and NCGCA-2-b (g).

Sample	EAB	Minimum RL	Thickness	References
	(GHz)	(dB)	(mm)	
Ni/C aerogel	2.4	-41.6	3.5	50
Ni/C aerogel	3.6	-23.0	2.0	51
PPy/Ni/rGO aerogel	4.3	-18.2	1.5	52
Ni/C aerogel	4.5	-45.0	2.0	53
Ni/rGO aerogel	4.6	-20.2	3.0	54
C/Ni/rGO aerogel	4.8	-16.5	1.8	55
C/Ni/PPy aerogel	4.8	-21.6	2.0	56
NCCA	2.2	-19.2	5.0	This work
NCGCA-2	5.2	-22.7	1.5	This work

**Table S1**† EAB and RL properties of some composites aerogels in previous referencesthat possess similar chemical composition with NCGCA-2.