

**Hierarchical Co_xAl_y layered double hydroxides@carbon composites derived
from the metal-organic framework with efficient broadband electromagnetic wave
absorption**

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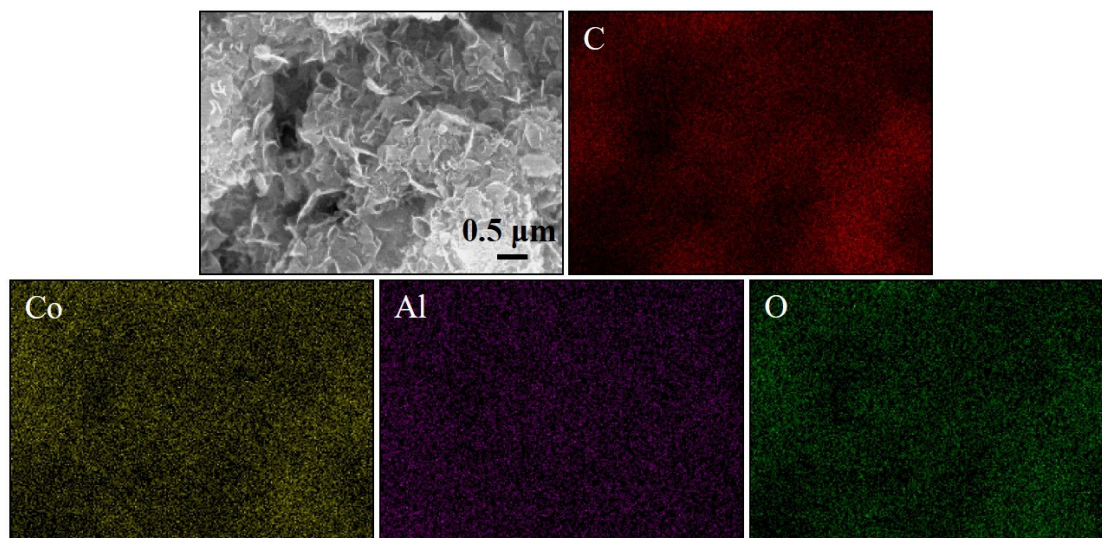


Figure S1 Elemental mapping distribution of the hierarchical LDH@C-2 composites.

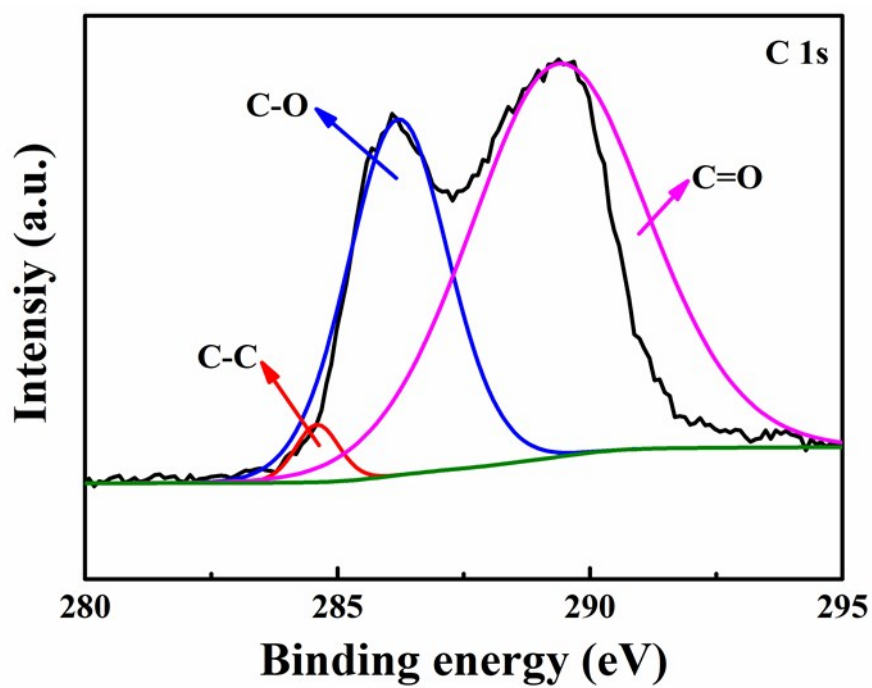


Figure S2 XPS spectra of C 1s for LDH@C-2 composite.

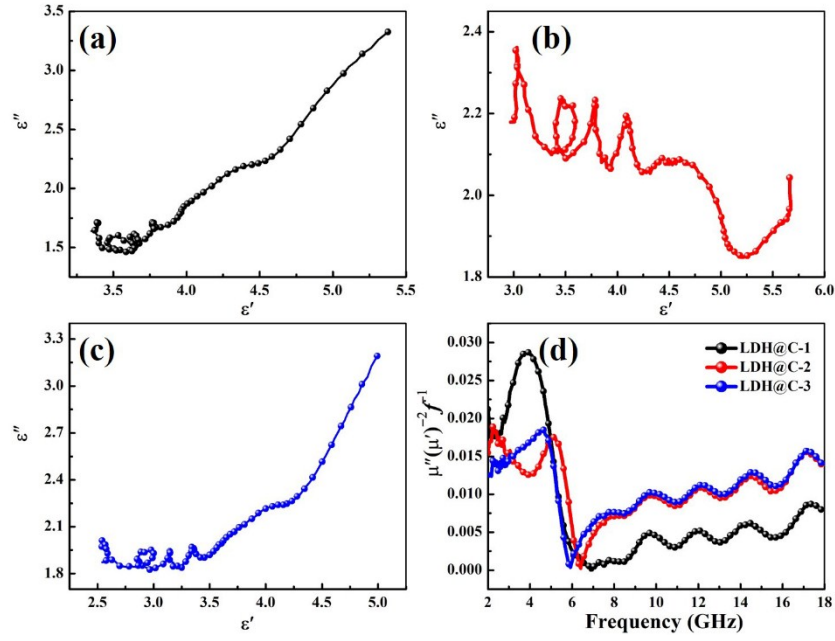


Figure S3 Cole–Cole semicircles (ϵ' versus ϵ'') of (a) LDH@C-1, (b) LDH@C-2 and (c) LDH@C-3 composites. (d) $\mu''(\mu')^{-2}f^{-1}$ (representing eddy current loss) values of the as-prepared samples.

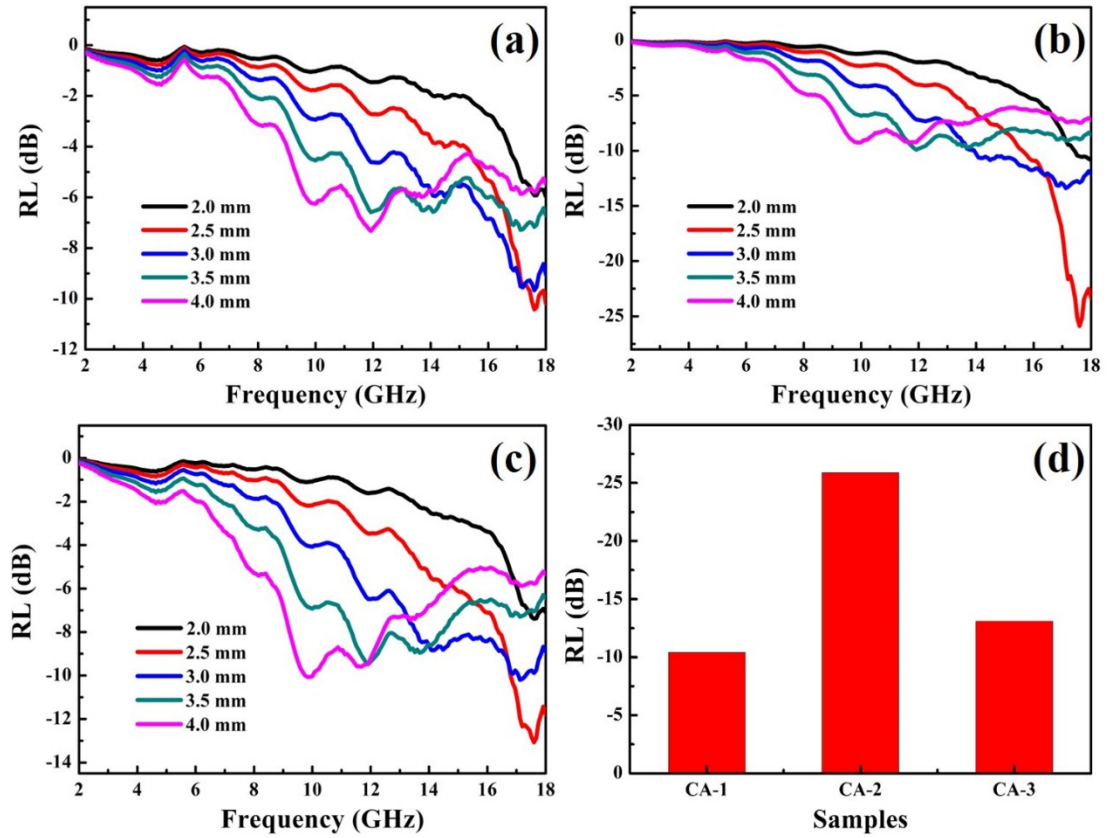


Figure S4 Reflection loss (RL) of the CA-1, CA-2 and CA-3 composites and their corresponding RL values at the thickness of 2.5 mm.

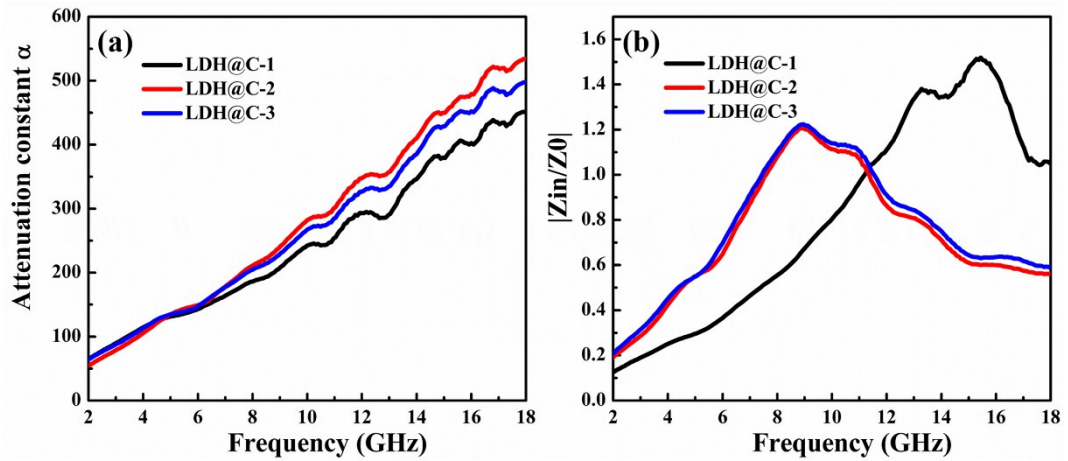


Figure S5 (a) Impedance matching $|Z_{in}/Z_0|$, (b) attenuation constant α of LDH@C-1, LDH@C-2 and LDH@C-3 composites.