Supporting Information

Permittivity-Regulating Strategy Enabling Superior Electromagnetic Wave Absorption of Lithium-aluminum-silicate/rGO Nanocomposites

Siru Lu,[a] Long Xia, [a] Jiaming Xu,[a] Chuheng Ding,[a] Tiantian Li,[a] Hua Yang,[b] Bo Zhong,[a] Tao Zhang,[a] Longnan Huang,[a] Li Xiong,[a] Xiaoxiao Huang[c] and Guangwu Wen[d]*

[a]School of Materials Science and Engineering, Harbin Institute of Technology (Weihai), Weihai 264209, China

[b]School of Science, Lanzhou University of Technology, Lanzhou 730050, China

[c]School of Materials Science and Engineering, Harbin Institute of Technology, Harbin 150001, China

[d]School of Materials Science and Engineering, Shandong University of Technology, Zibo 255000, China

*Corresponding author's Email: xialonghit@gmail.com

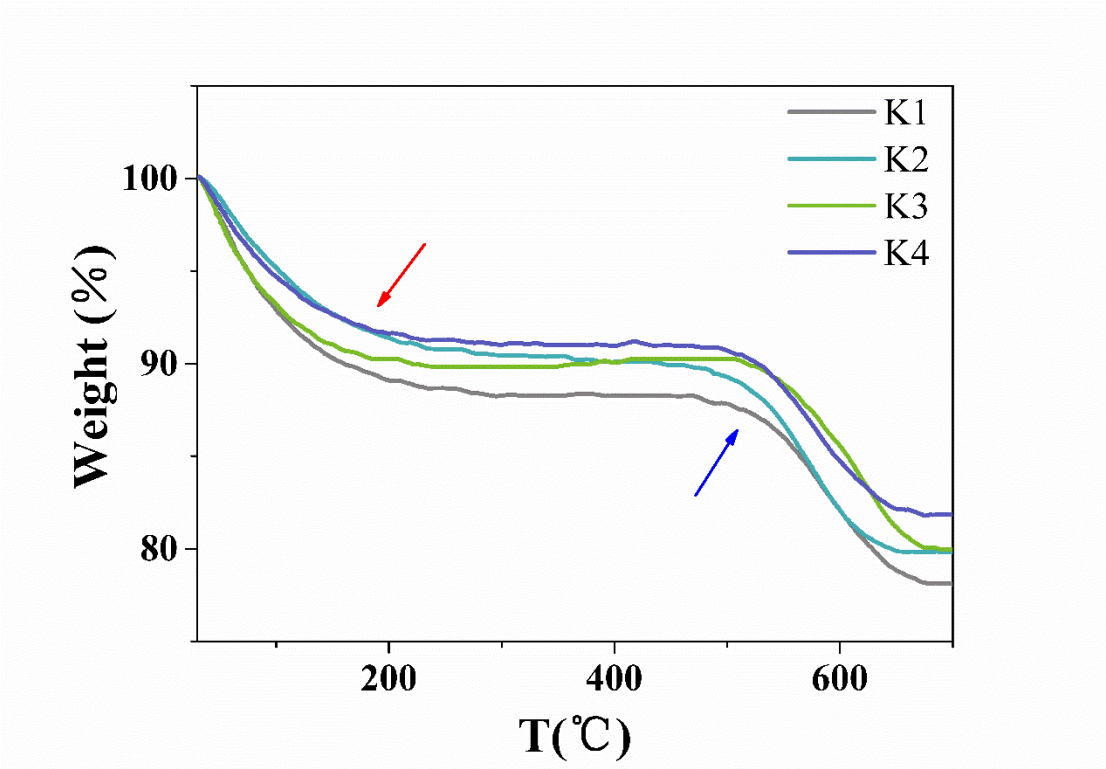

Fig. S1. TGA profiles of LAS/rGO-KH-550s.

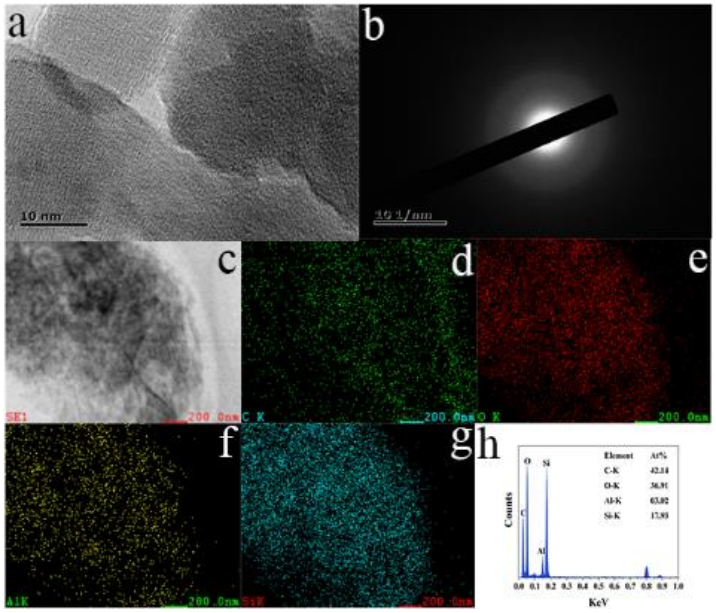

Fig. S2. (a) HRTEM, (b) SAED, (c) TEM, (d) C element mapping, (e)O element mapping, (f) Al element mapping, (g) Si element mapping and (h) EDS of K2.

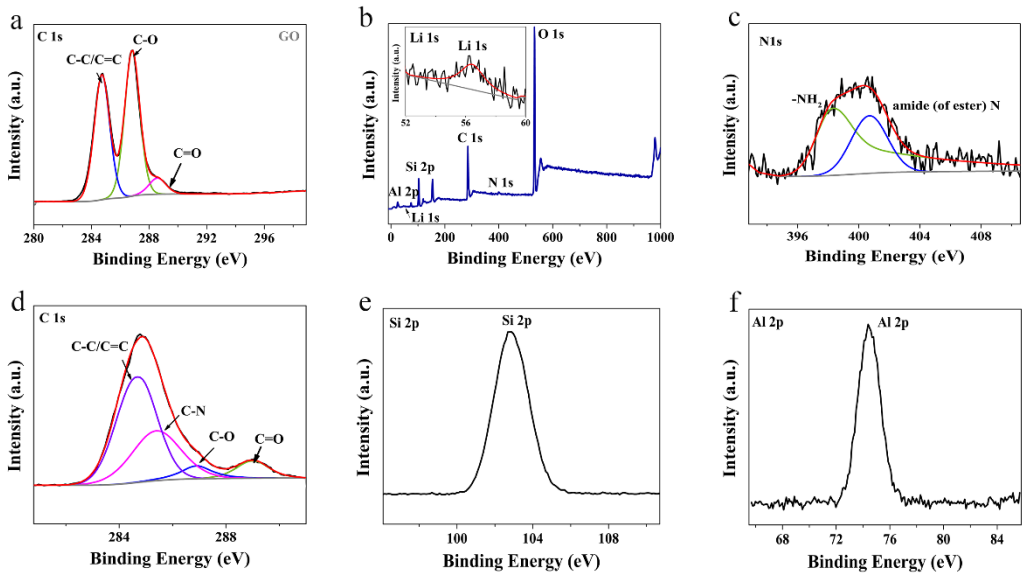

Fig. S3.XPS spectra: (a) C 1s spectrum of GO, (b) survey spectrum, (c) N 1s spectrum, (d) C 1s spectrum, (e) Si 2p spectrum, (f) Al 2p spectrum of K2.

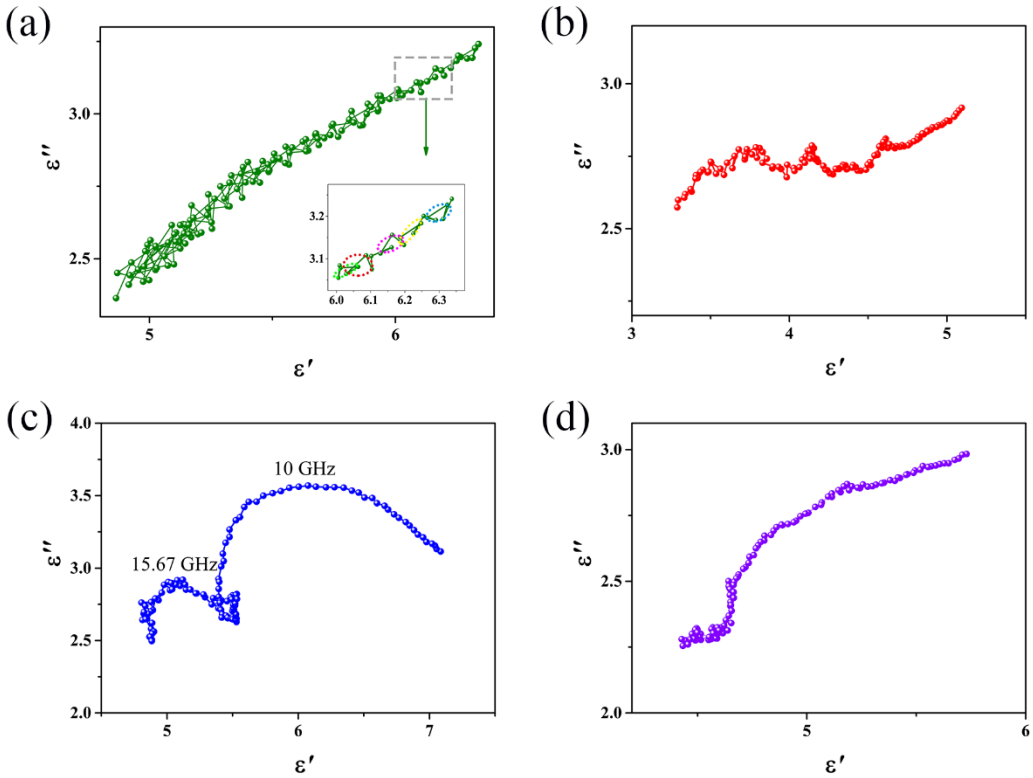

Fig. S4. The cole-cole plots of LAS/rGO-KH-550s:(a) K1, (b) K2, (c) K3, (d) K4 at 8-18GHz.

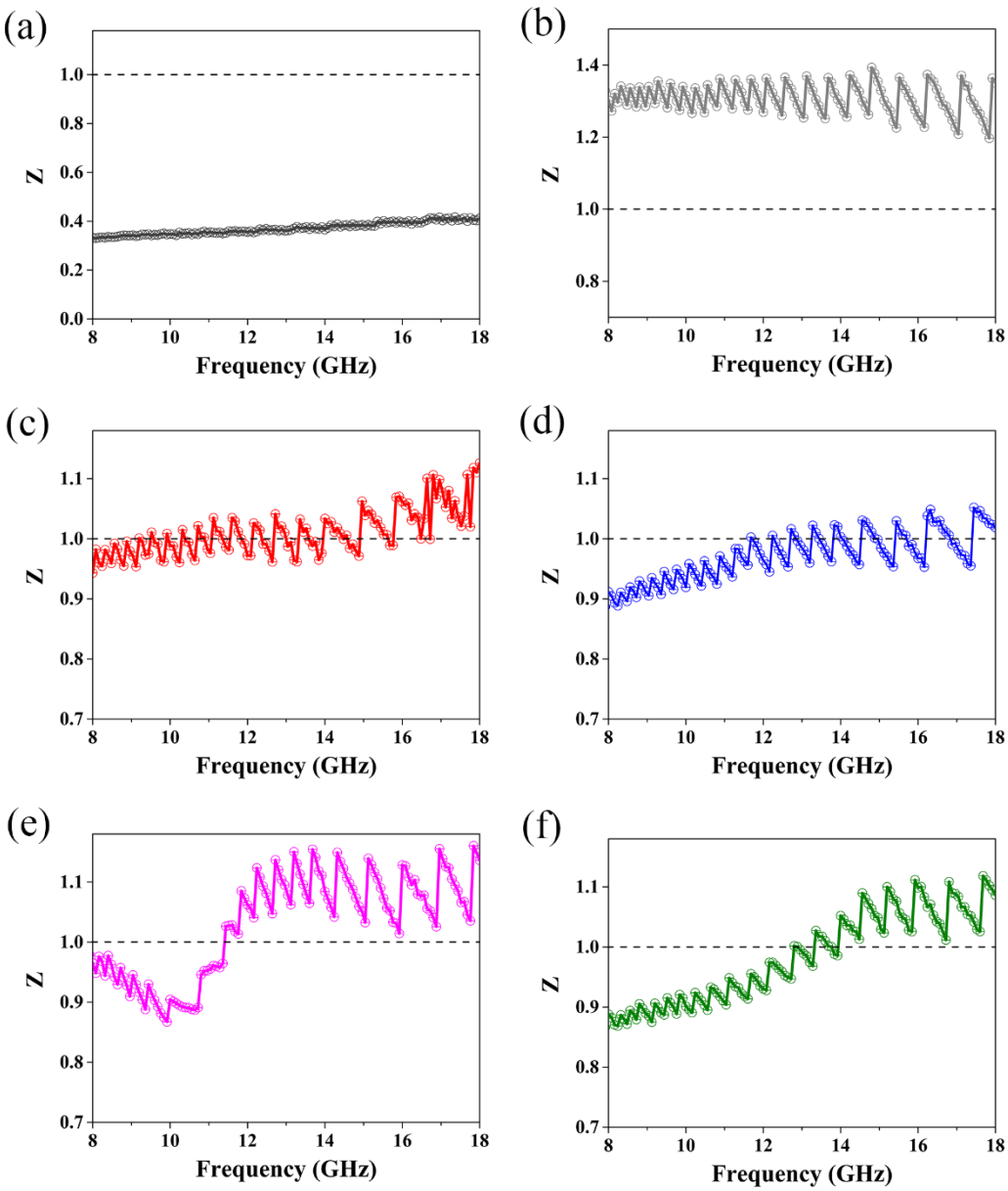

Fig. S5. The Z with different frequencies and different thicknesses at corresponding peak RL of (a) rGO, (b) LAS/rGO, (c) K1, (d) K2, (e) K3 and (f) K4 at 8-18 GHz.

Table. S1. The resistivity value of samples.

Samples	ρ (Ω·cm)
rGO	4.05×10^{-2}
LAS	6.07×10^{4}
LAS/rGO	27.51
LAS/rGO-K1	7.35
LAS/rGO-K2	7.99
LAS/rGO-K3	4.23
LAS/rGO-K4	4.20