

## **Electronic Supplementary Information**

### **Interfacial Polarizations Induced by Incorporating Traditional Perovskite into Reduced Graphene Oxide (RGO) For Strong Microwave Response**

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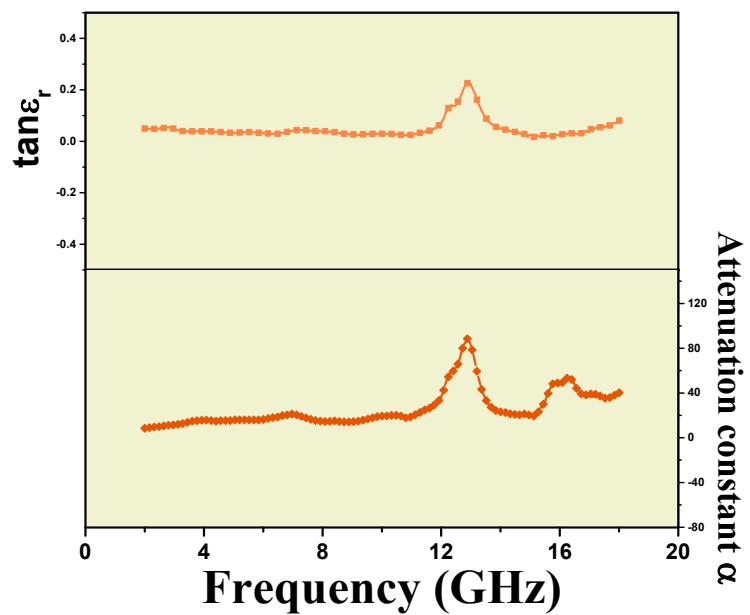
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P. R. China.

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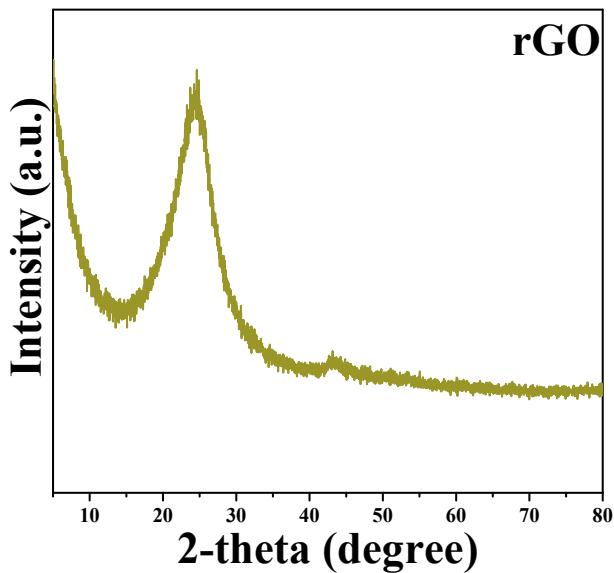
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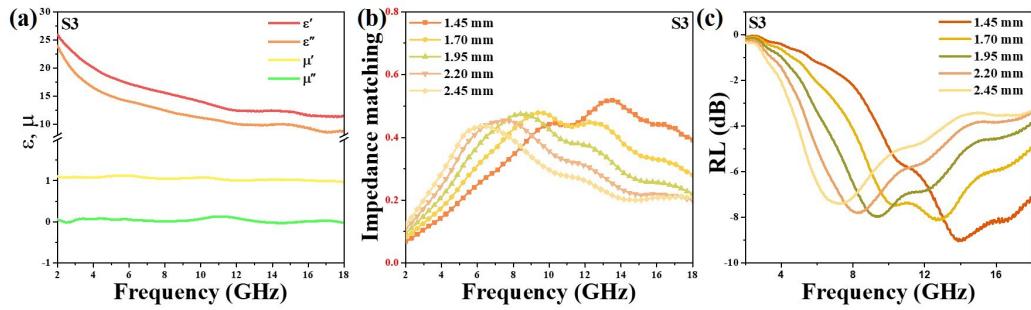
E-mail: [bszhang@nju.edu.cn](mailto:bszhang@nju.edu.cn); [gaji@nuaa.edu.cn](mailto:gaji@nuaa.edu.cn)



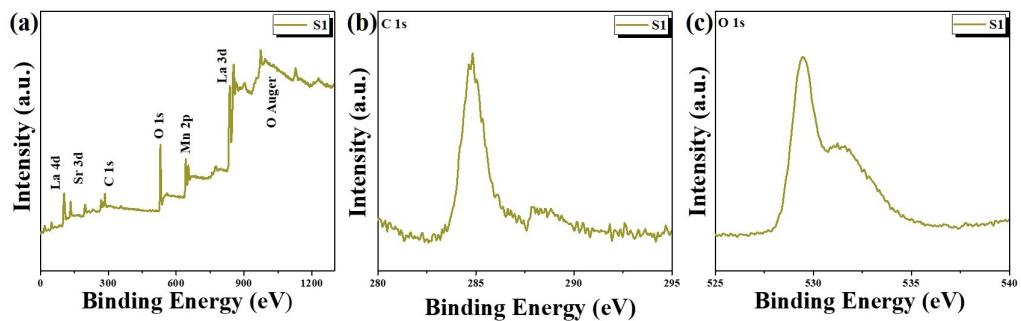
**Fig. S1.** Values of  $\tan \epsilon_r$  and attenuation constant  $\alpha$  depending on the frequency.



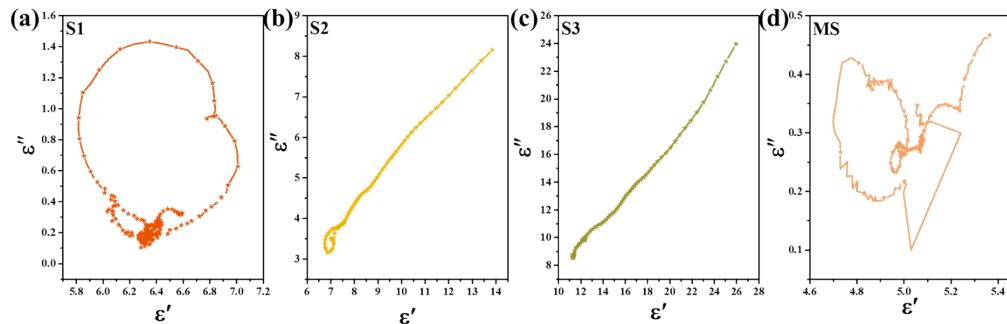
**Fig. S2.** XRD patterns of pure RGO.



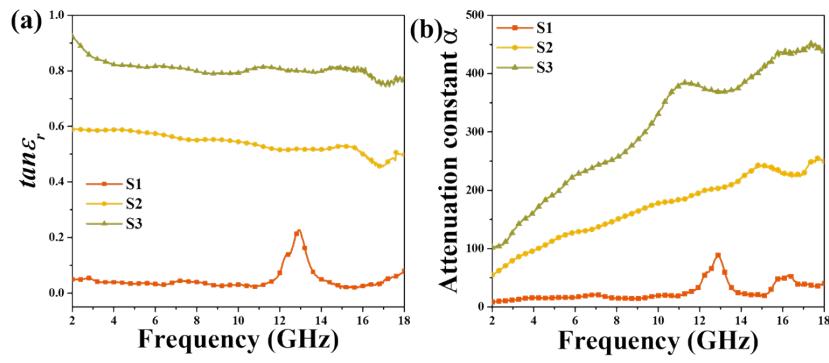
**Fig. S3.** Frequency dependence of the electromagnetic parameters of the S3/paraffin composites with 60 wt% filler loadings (a); The impedance matching ratio of S3 (b); Absorbing ability measured by RL values of S3 (c).



**Fig. S4.** The XPS images of S1.



**Fig. S5.** Cole-Cole semicircles of (a) S1, (b) S2, (c) S3 and (d) MS.



**Fig. S6.** (a) loss tangent and attenuation constant  $\alpha$  of S1, S2 and S3.