Electronic Supplementary Material (ESI) for RSC Advances.

Supporting Information

High-efficiency and Dynamic Stable Electromagnetic Wave Attenuation for La Doped Bismuth Ferrite at Elevated Temperature and Gigahertz Frequency

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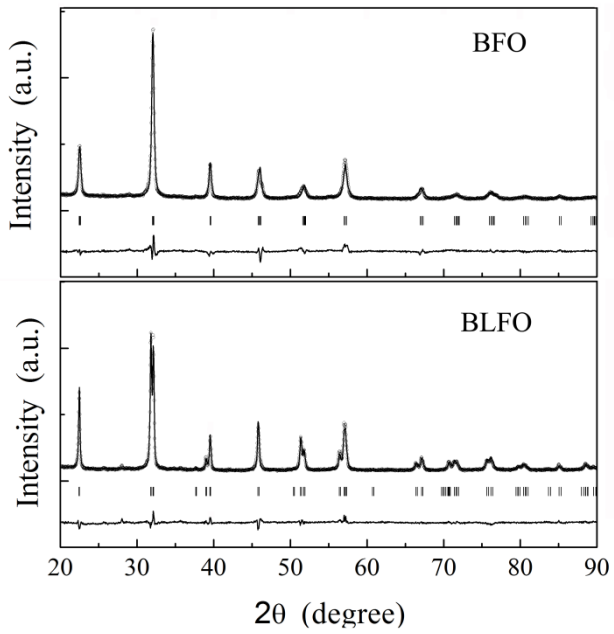

Fig. S1 Rietveld refinement of BFO and BLFO.

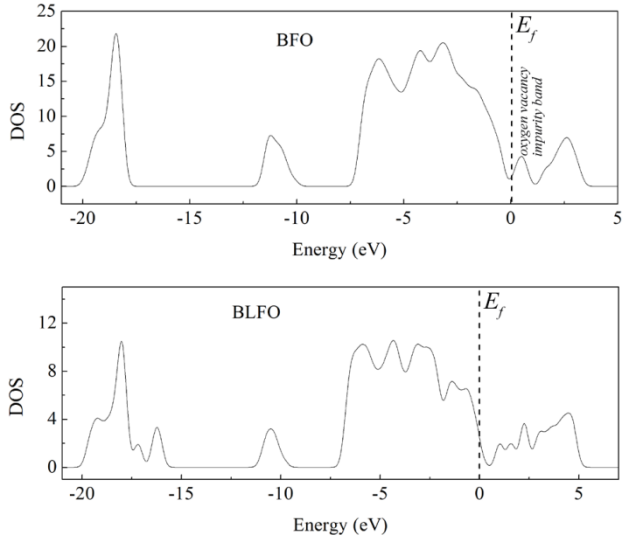

Fig. S2 DOS images of BFO and BLFO. Compared with BLFO, BFO possesses more obvious the oxygen vacancy impurity band, indicating the decrease of oxygen vacancy in BLFO. The optimized lattice parameters of BFO supercell: $a = b = 11.42$ Å, $c = 5.71$ Å, $\alpha = \beta = \gamma = 59.07°$; BLFO supercell: $a = 5.63$ Å, $b = 5.71$ Å, $c = 8.02$ Å, $\alpha = 91.14°$, $\beta = \gamma = 90°$.

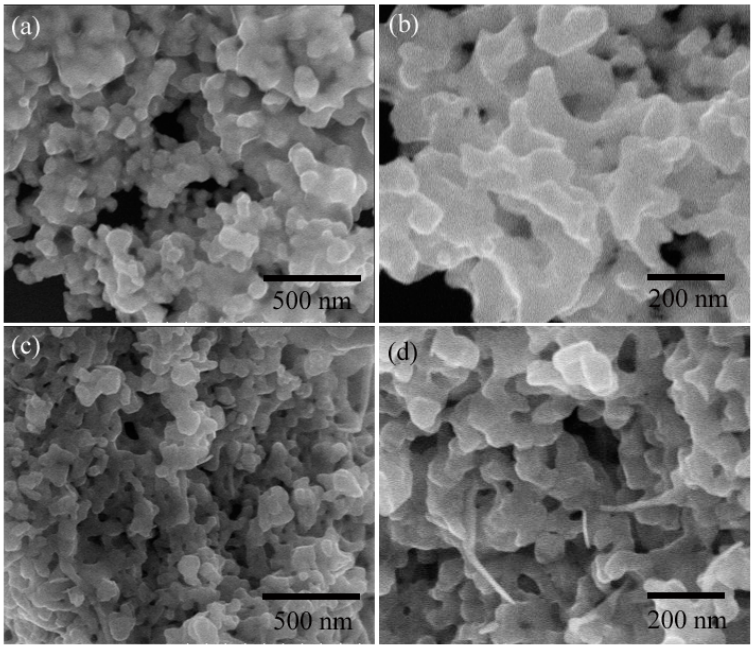

Fig. S3 SEM images with different magnification of (a), (b) BFO and (c), (d) BLFO powders.

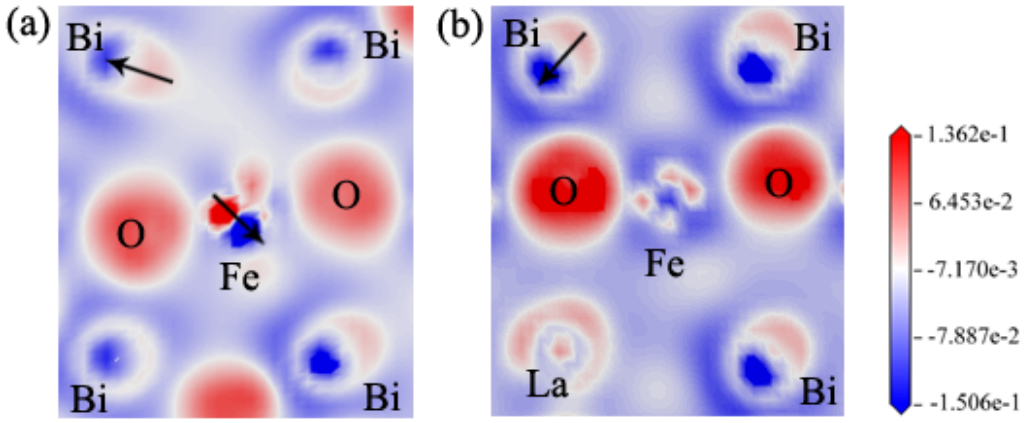

Fig. S4 Difference charge density of (a) BFO and (b) BLFO.

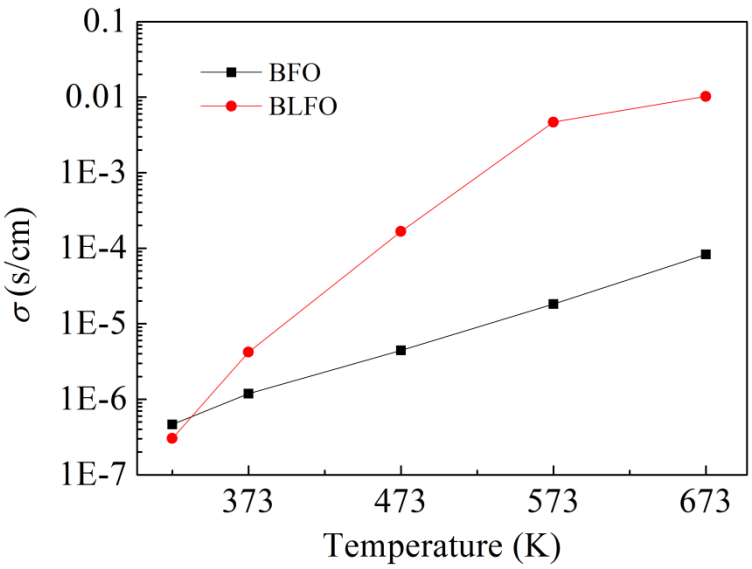

Fig. S5 The DC conductivity of BFO and BLFO versus temperature.

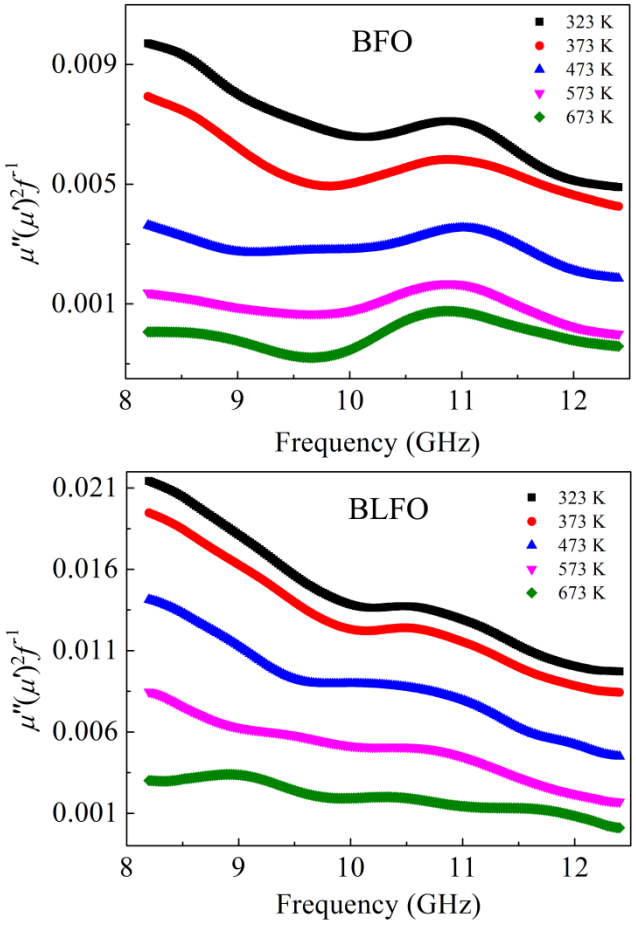

Fig. S6 The eddy current coefficients $\mu''(\mu')^{-2}f^{1}$ of BFO and BLFO versus frequency.