

## **Achieving giant energy density/efficiency in light-metal-element-rich relaxor ferroelectric ceramic by annihilating the volatile Schottky defects**

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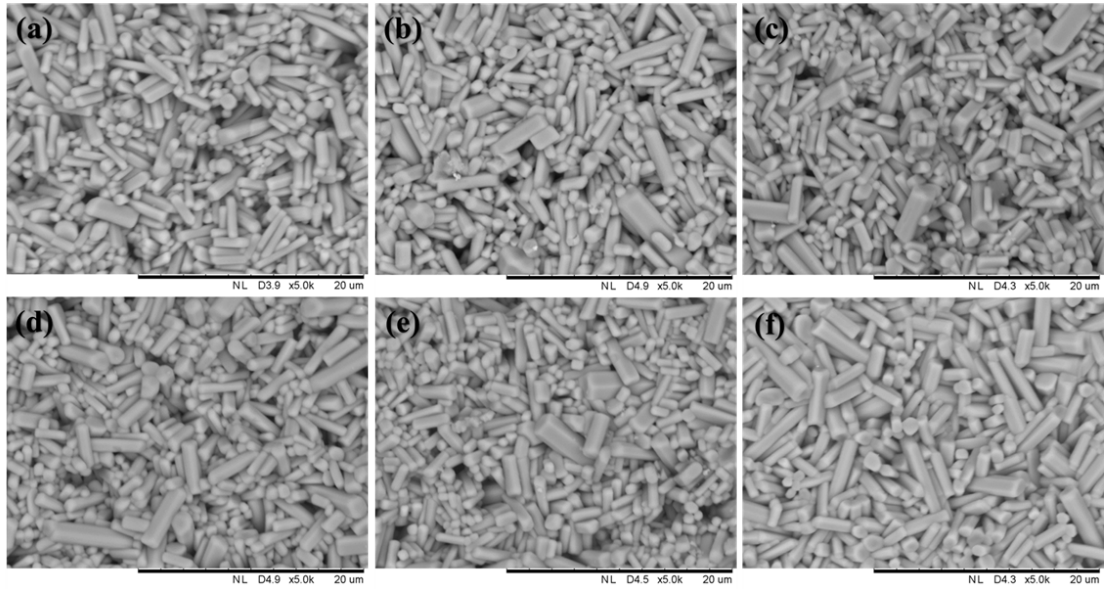
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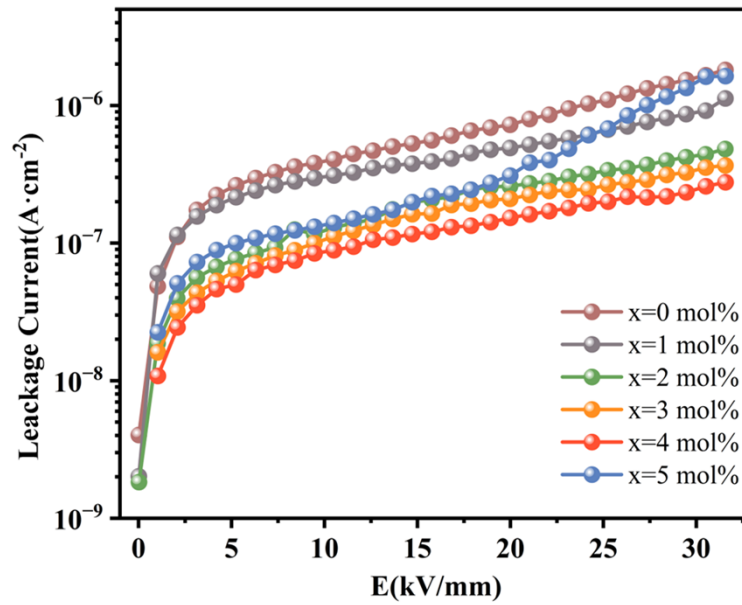
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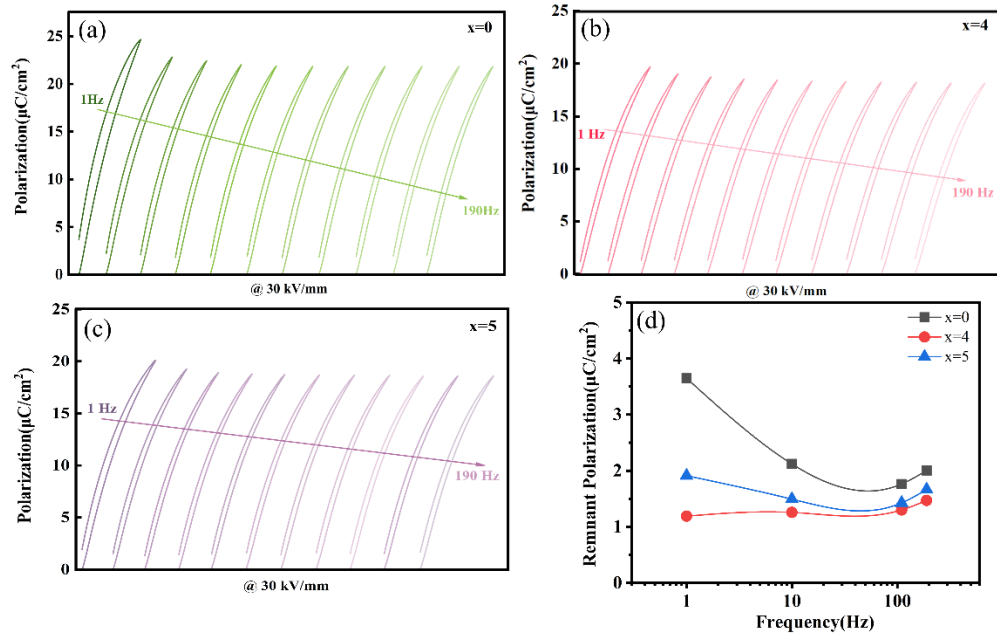
# These authors contribute to this work equally.



**Figure S1** (a)-(f) The SEM images of the KLGn-K<sub>x</sub> from x=0 to x=5



**Fig. S2.** Leakage current density as a function of biased DC electric field.



**Fig. S3.** The P-E loop under various frequencies (a)  $x=0$  (b)  $x=4$  (c)  $x=5$ , (d) The remnant polarization of  $x=0,4,5$  at different frequencies.