

# Enhanced Piezoelectric Performance of Lead-based Ceramics via multi-B Site Ions Design and Local Structural Disorder

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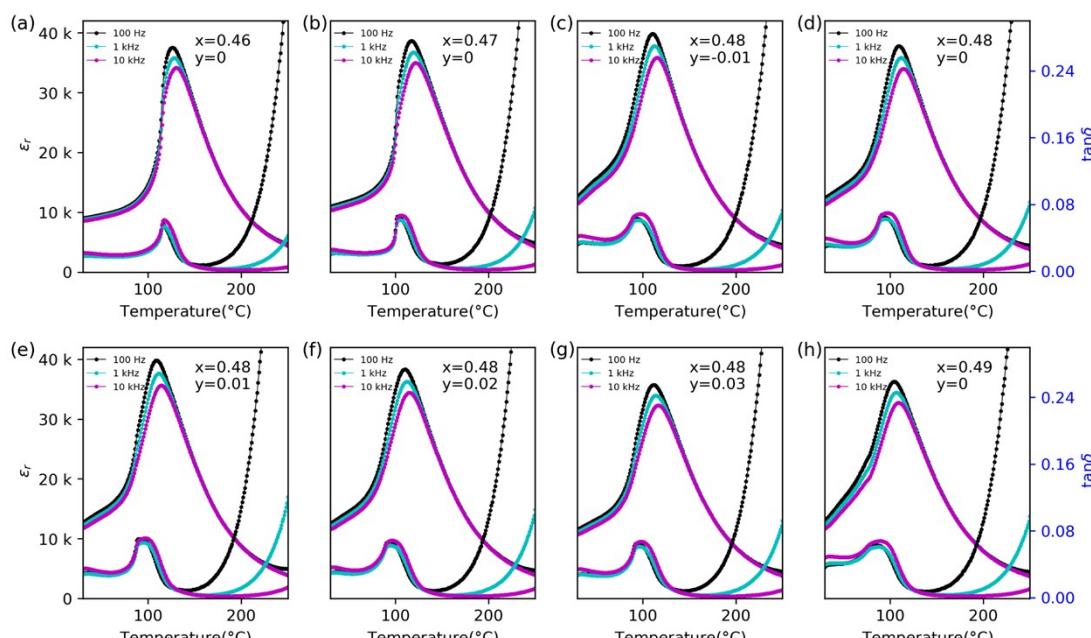


Figure S1: The temperature dependence of  $\epsilon_r$  and  $\tan\delta$  of PNN-PMeN-PT ceramics at 0.1-10 kHz with  $x=0.46-0.49$  and  $y=-0.01-0.03$