

# **ADVANCED QUANTUM TECHNOLOGIES**

## Supporting Information

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Temperature-Dependent Anharmonic Phonons in Quantum Paraelectric  $\text{KTaO}_3$  by First Principles and Machine-Learned Force Fields

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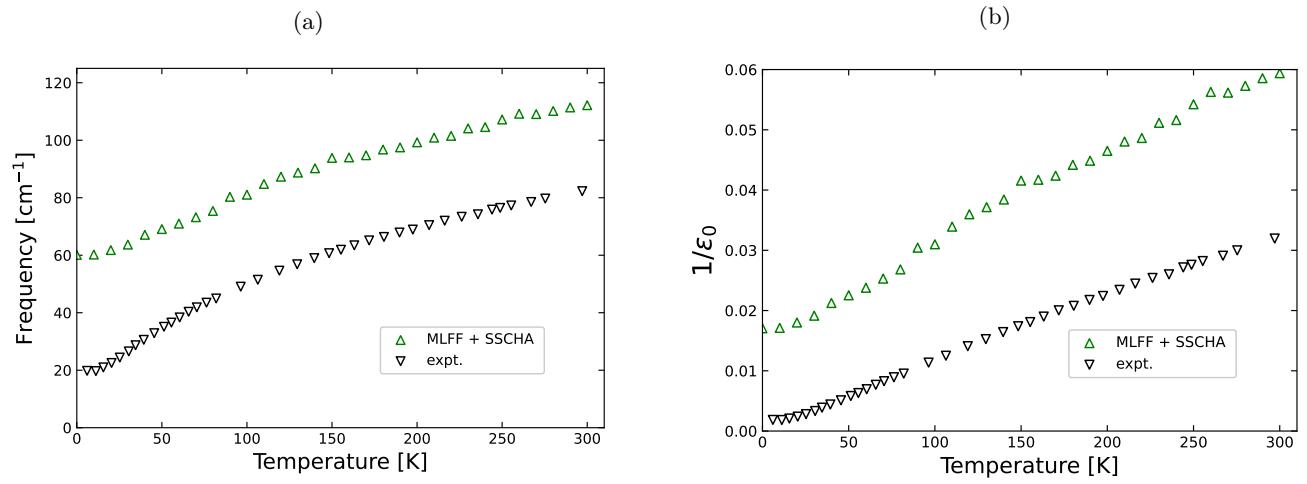


FIG. S1: Temperature evolution of the  $\text{TO}_1$   $\Gamma$ -point frequency (a) and of the inverse of the dielectric constant (b) *without* shifting the computed soft mode frequencies to match the experimental low-temperature value as in Figure 4 in the main text.