

Electronic Supplementary Information (ESI) to:

A scaling law for distinct electrocaloric cooling performance in low-dimensional organic, relaxor and anti-ferroelectrics

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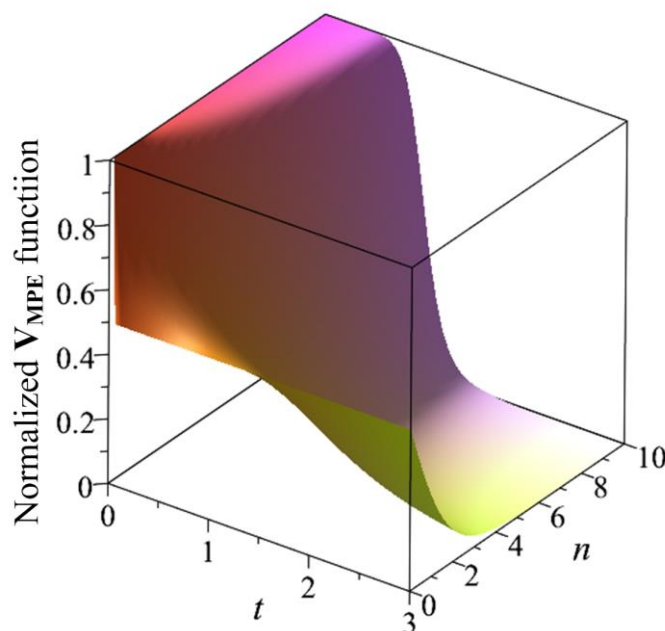


Figure S11. A 3D plot of differently diffused MPE volume (normalized by V_{cr}) in EC materials as a function both t and n .

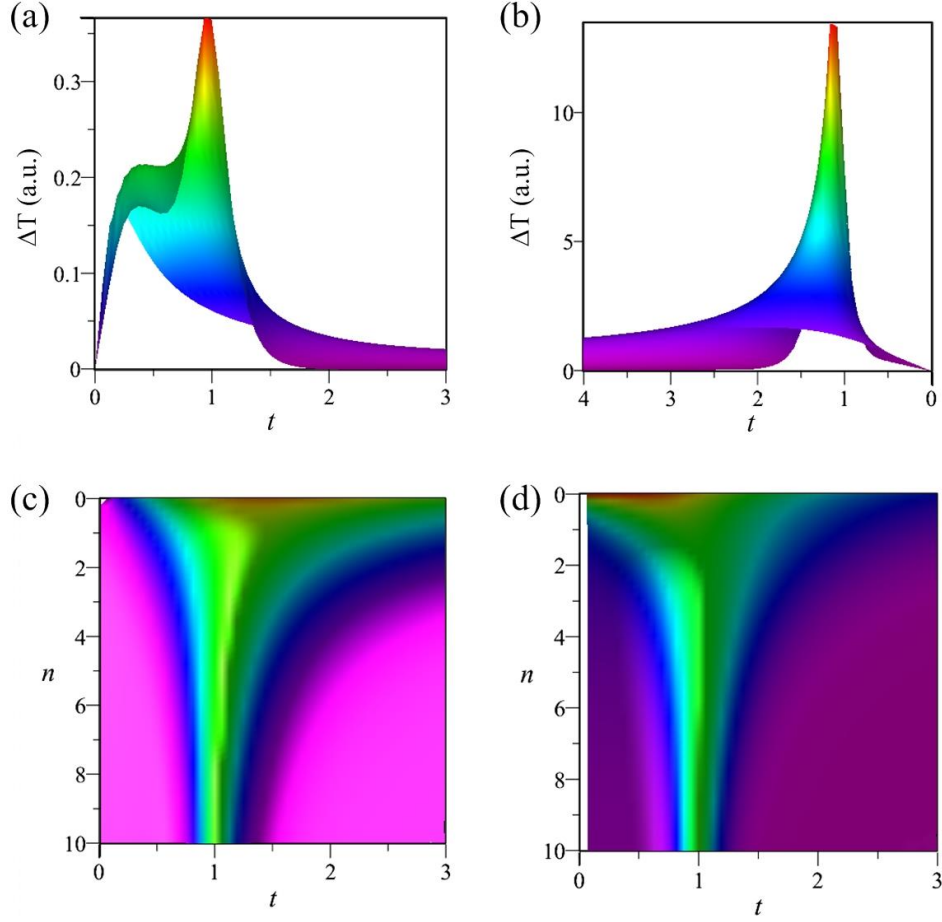


Figure SI2. (a, b) ΔT - t plane projection of calculated ΔT 3D surfaces in Figures 2(a) and 2(b) in the main paper; (c, d) n - t plane projection of the ΔT and $(-\Delta S)$ 3D surfaces shown in Figures 2(d) and 2(e).

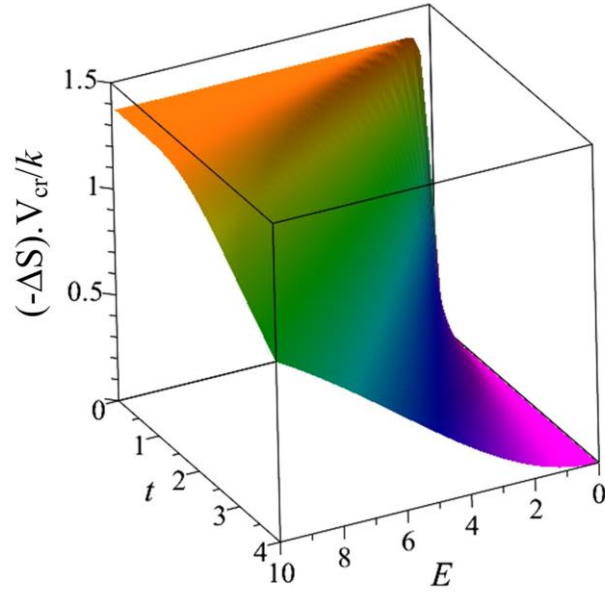


Figure SI3. A 3D plot of negative entropy change (normalized by k/V_{cr}) as a function of both t and E activations in the $n=0$ electrocaloric materials and structures.

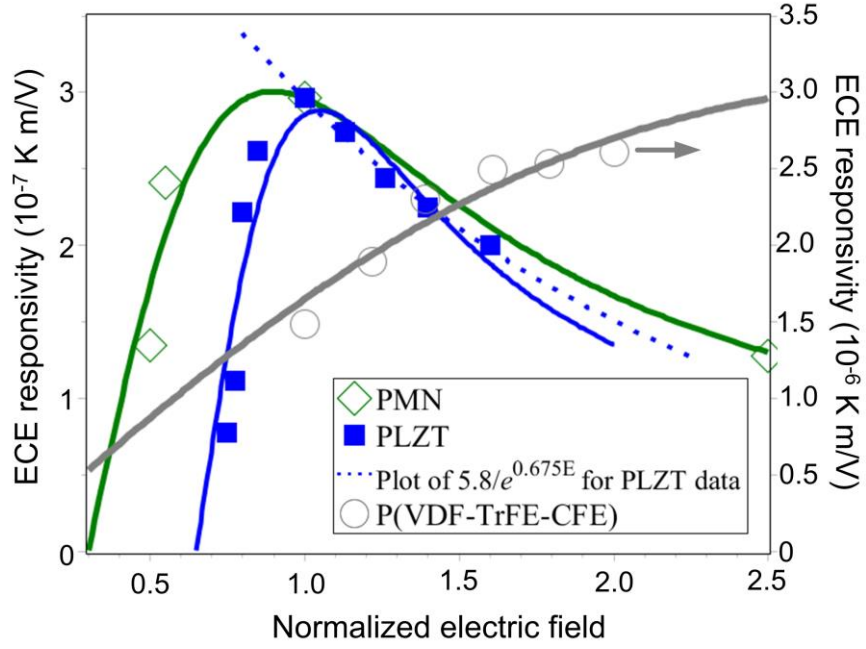


Figure SI4. Our ECE responsivity fitting curves for the experimental data measured in PMN, PLZT and P(VDF-TrFE-CFE). An exponential decay is also plotted for the PLZT data for a direct comparison. The PMN and PLZT data are derived from ref. 36; P(VDF-TrFE-CFE) data are from ref. 10. Reference codes and material abbreviations refer to the main paper.