

## *Supporting Information*

# Interplay of Structural Fluctuations and Charge Carrier Dynamics is Key for High Performance of Hybrid Lead Halide Perovskites

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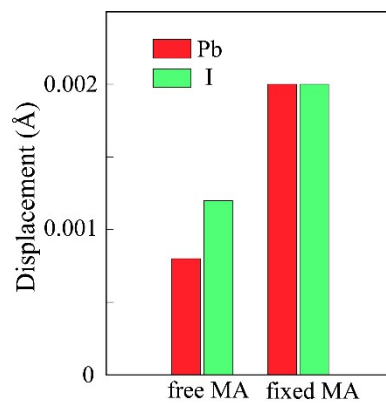
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**Figure S1.** The simulated root-mean-square displacements of Pb and I atoms in the MAPbI<sub>3</sub> perovskite with free and fixed MA cations.