Supporting Information

Ultra-High Seebeck Coefficient and Low Thermal Conductivity of Centimeter-sized Perovskite Single Crystal Acquired by a Modified Fast Growth Method

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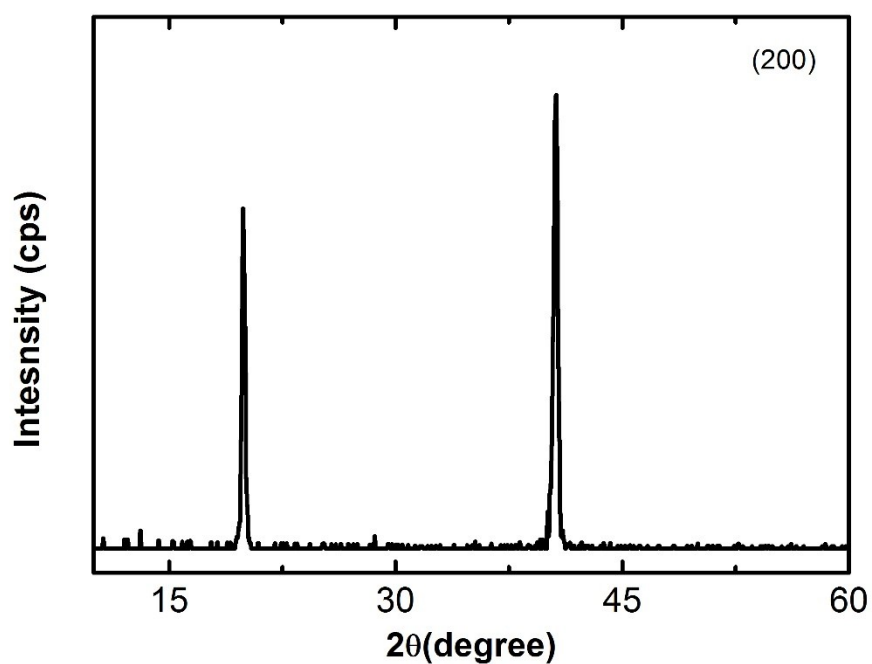Email: seeram@nus.edu.sg (S. R.)

Figure S1. 2θ scan profile for the large perovskite $CH_3NH_3PbI_3$ crystal for the (200) plane.
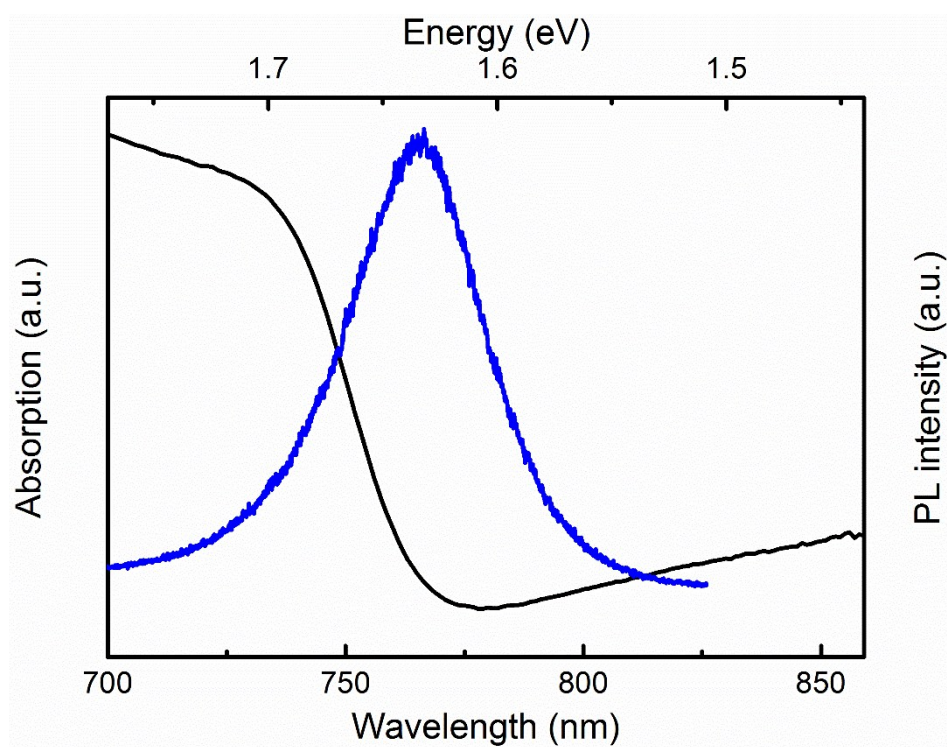

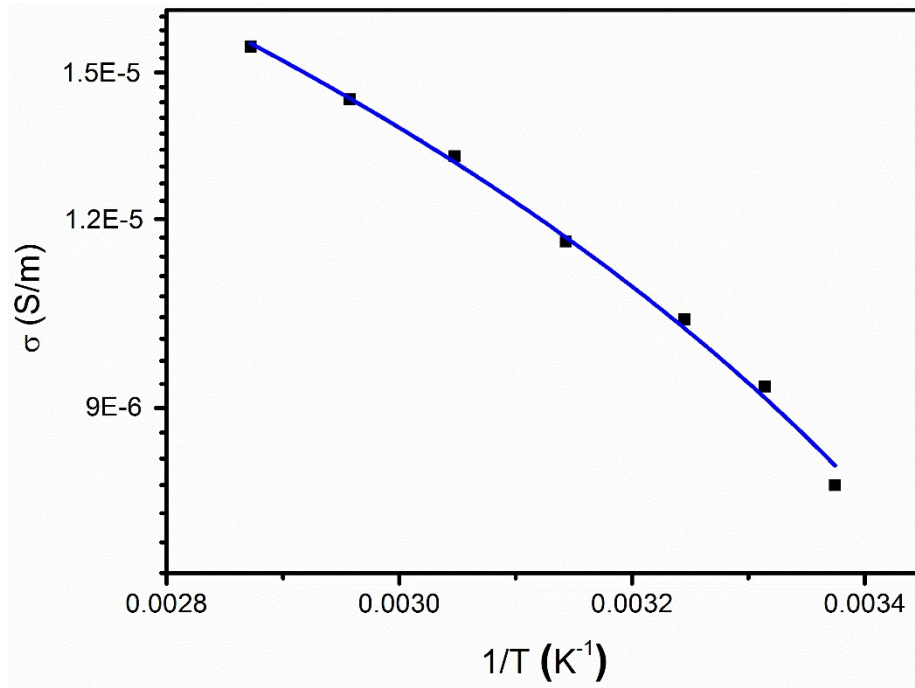Figure S2. Optical absorption (black) and PL (blue) of a $MAPbI_3$ thin film sample.

Figure S3. Arrhenius plot of the electrical conductivity of the perovskite single crystal. The thermally activated relation can be defined as: $\delta \sim \exp(E_a/T)$, E_a is the energy barrier.