Electronic Supporting Information

Passivation of defects in inverted perovskite solar cells by imidazolium-based ionic liquid

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Figure S1. Top view SEM images of perovskite film with (a) 1 mg/mL and (b) 2 mg/mL MIP additive.
Figure S2. Histograms of Jsc(a), Fill factor(b) and PCE(c) of 20 devices with pristine perovskite or MPIB-perovskite (0.5).

Figure S3. High-resolution XPS measured on the perovskite and MPIB-perovskite.
Figure S4. FTIR spectroscopy for bare MPIB, PbI2 and MPIB-PbI2 powder.

Figure S5. Stability of the devices with pristine perovskite and MPIB-perovskite tested in the glove box.
Figure S6. Thermal stability of the devices with pristine perovskite and MPIB-perovskite tested under the 85 ℃ in the glove box for 30 minutes.