

Improved Performance of Pure Formamidinium Lead Iodide Perovskite Light-Emitting Diodes by Moisture Treatment

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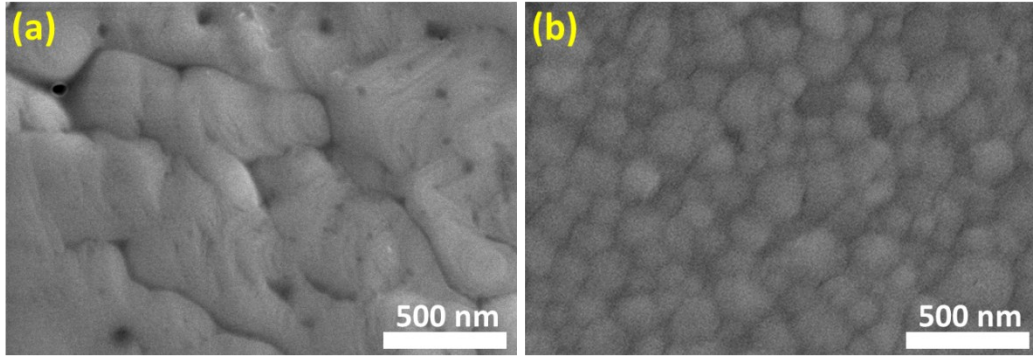


Fig. S1 The enlarged SEM images of FAPbI₃ films without (a) and with (b) chloroform solvent engineering.

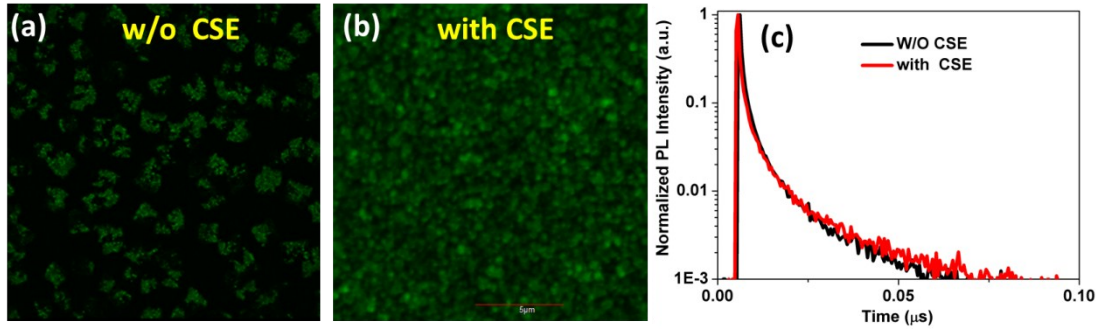


Fig. S2 Confocal fluorescence microscopy images of perovskite film (a) without and (b) with CSE. (c) Time-resolved PL decay curves of perovskite film with and without CSE.

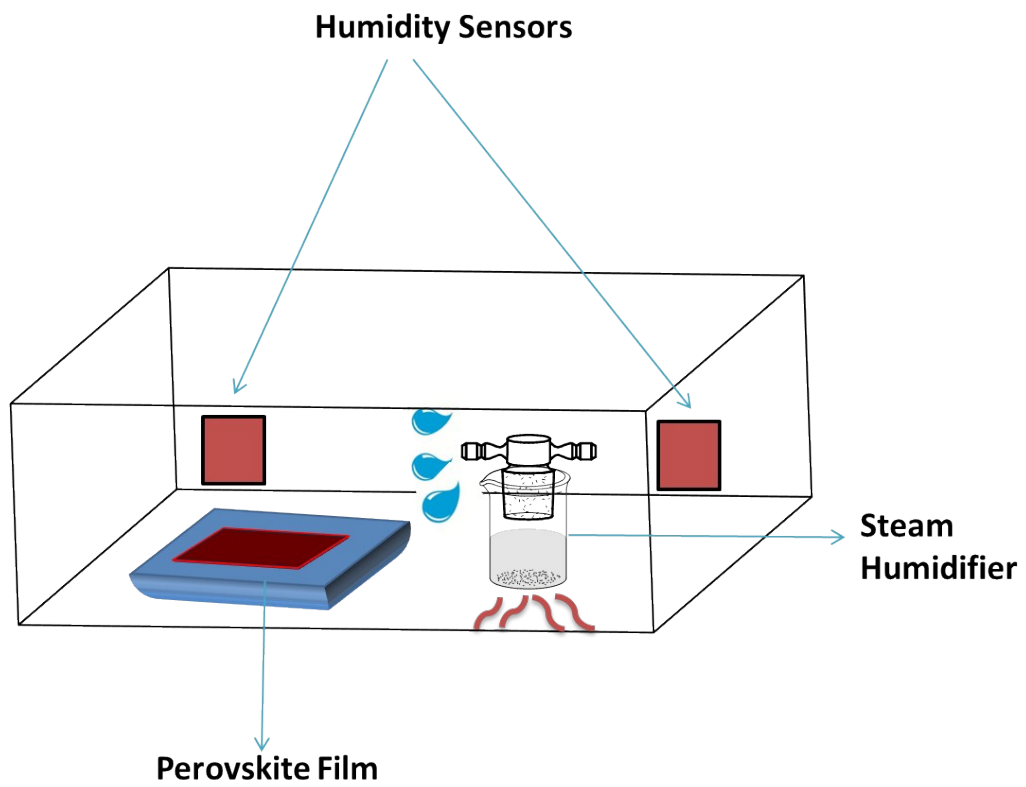


Fig. S3 Scheme of the humidity-controlled chamber.

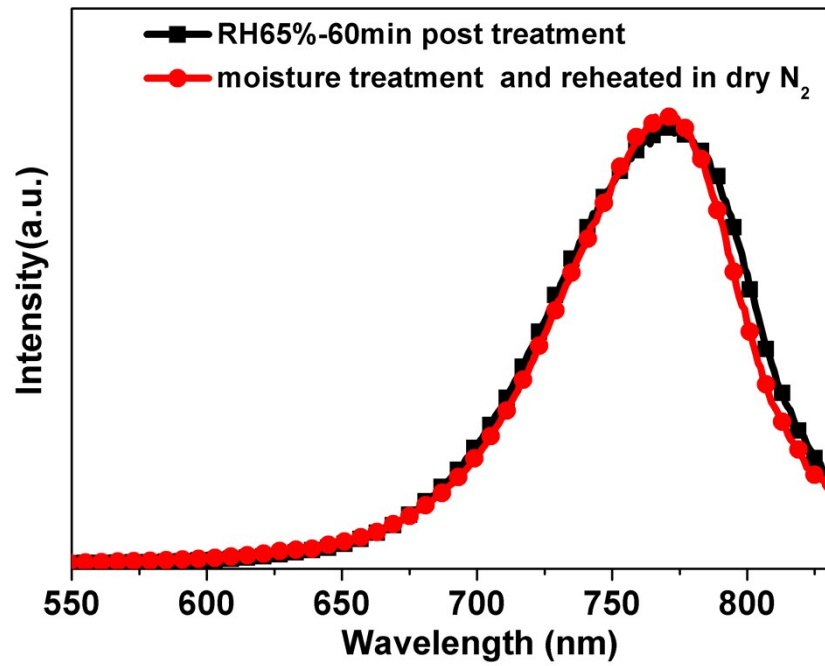


Fig. S4 The PL spectra of perovskite film with moisture treatment and further post heat-treatment at 65 °C in dried N₂.

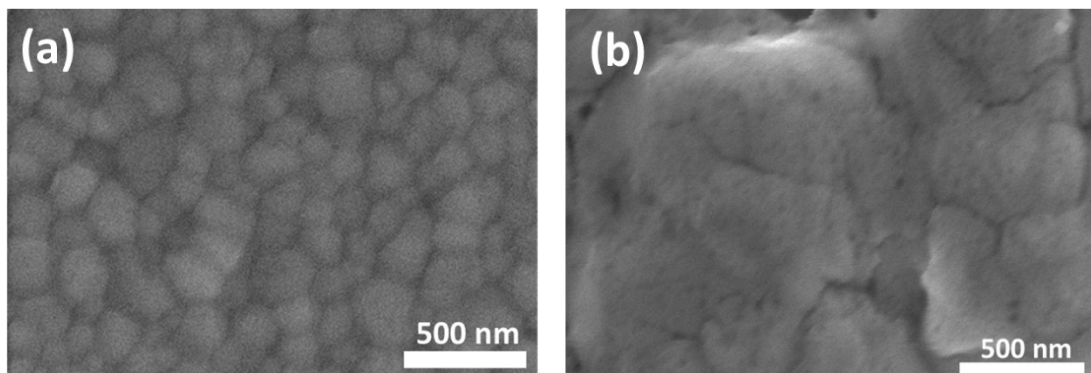


Fig. S5 SEM images of the FAPbI₃ films after (a) 0%RH-60 min and (b) 90%RH-30 min treatment.

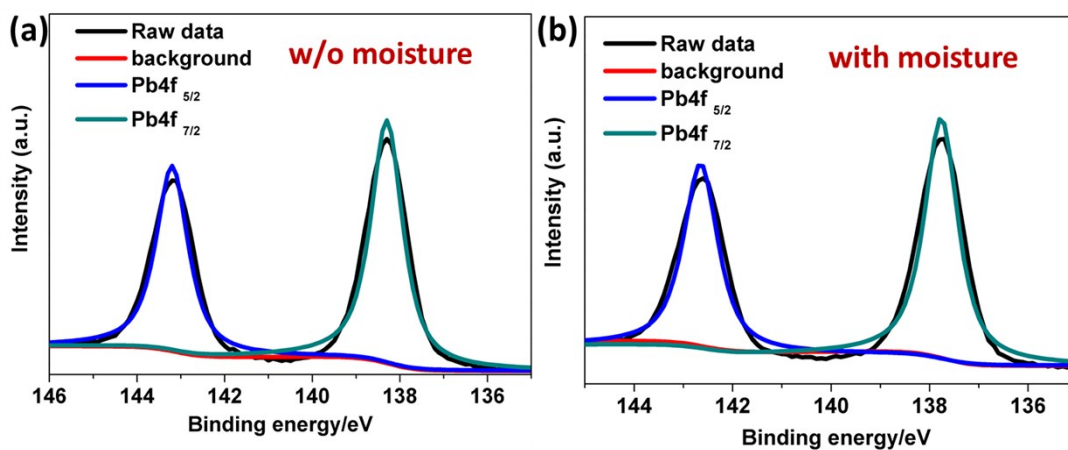


Fig. S6 The spectra of Pb 4f_{7/2} and Pb 4f_{5/2} of perovskite film (a) with and (b) without moisture treatment.

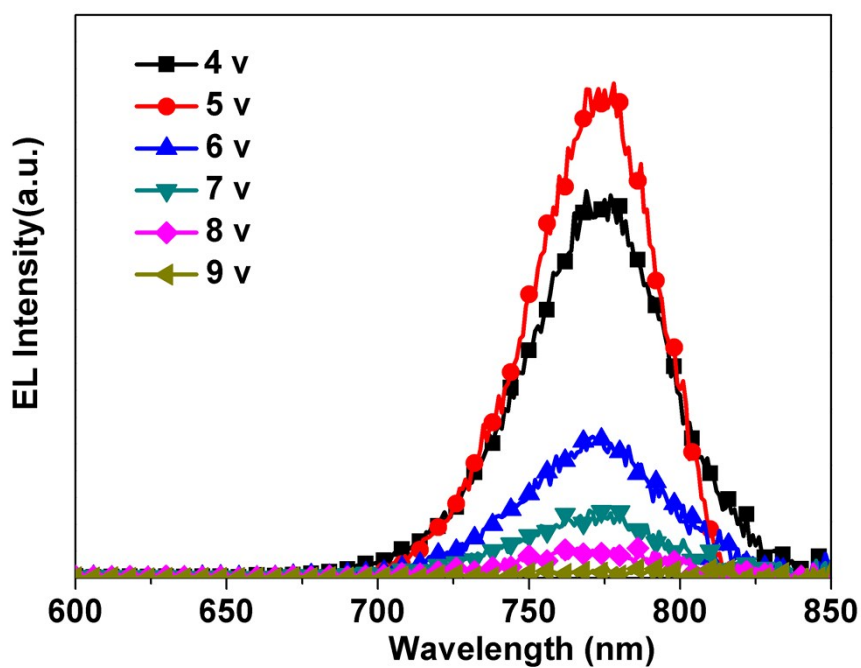


Fig. S7 Electroluminescence spectra of PeLEDs with 65%RH-60 min post treatment under different bias voltages.

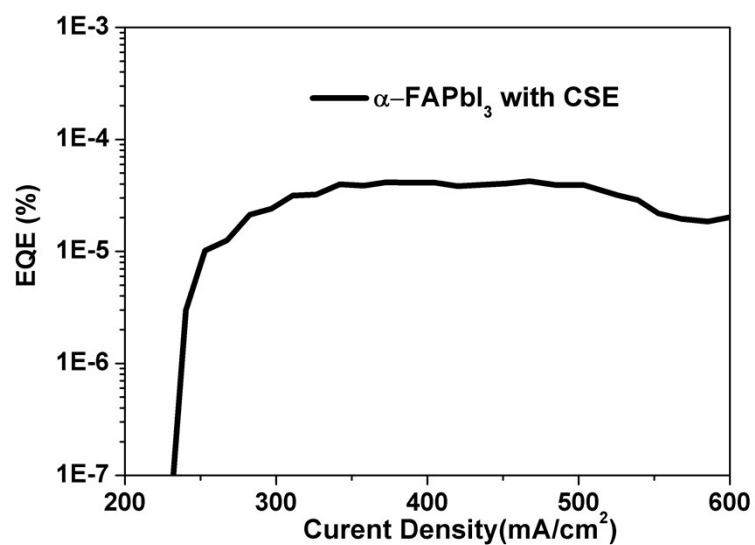


Fig. S8 External quantum efficiency (EQE) versus current density of pure α -FAPbI₃ with CSE.

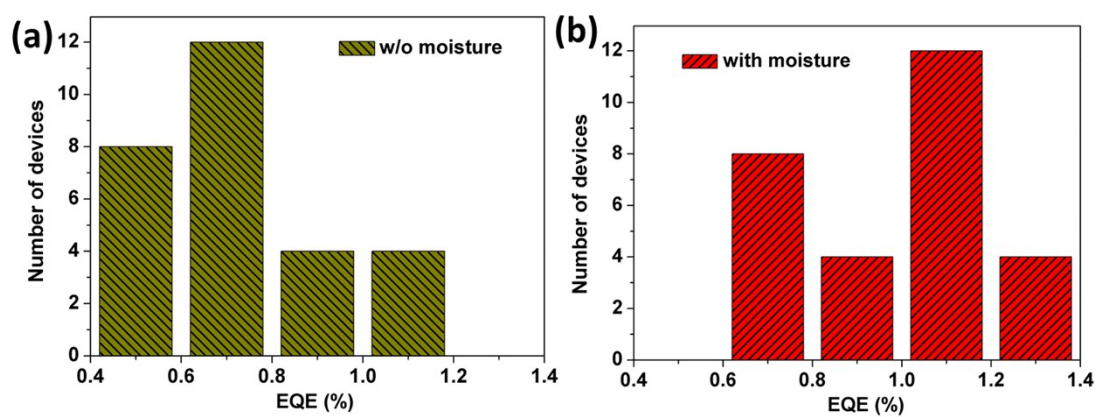


Fig. S9 Distributions of devices EQEs (a) before and after (b) 65%RH-60 min moisture treatment.

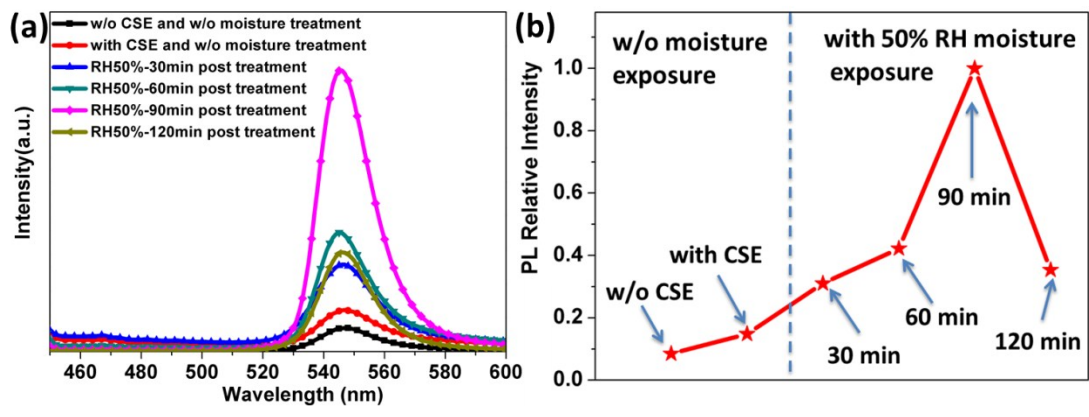


Fig. S10 The PL spectra (a) and the relative PL intensity (b) of MAPbBr₃ films without CSE, with CSE and exposed to moisture with different time under 50% relative humidity.