Supplementary Information

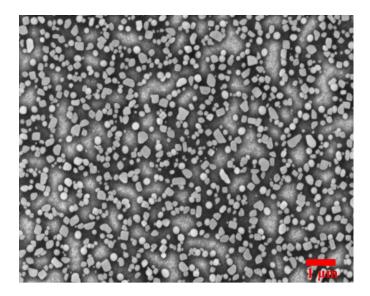
Transparent Near-Infrared Perovskite Light-Emitting Diodes

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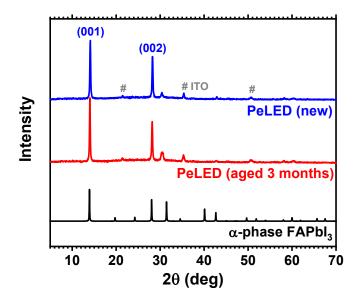
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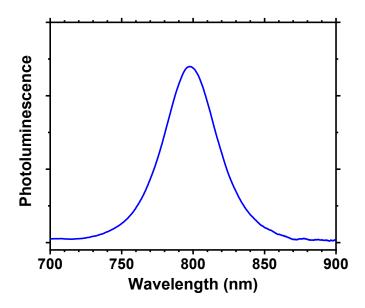
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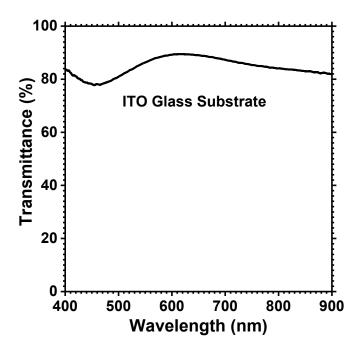
Supplementary Figure 1. Scanning electron microscopy image of the FAPbI $_3$ perovskite layer. Scale bar is 1 μm .



Supplementary Figure 2. X-ray diffraction pattern of FAPbI₃ perovskite in PeLED. New and aged devices show negligible differences.

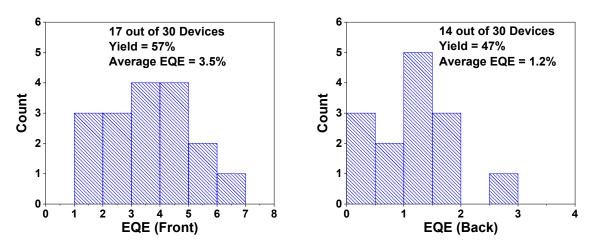


Supplementary Figure 3. Photoluminescence spectrum of FAPbI₃ perovskite.

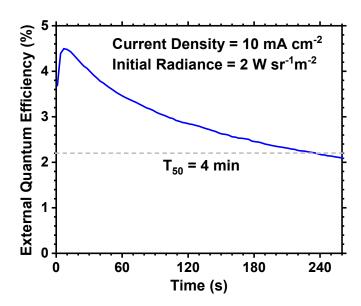


Supplementary Figure 4. Transmittance spectrum of ITO-coated glass substrate.

a b



Supplementary Figure 5. Histogram of the maximum external quantum efficiency of the (a) front emission and (b) back emission. The device yield is smaller for the back emission because some devices failed after being driven to 5 V in the front emission measurement.



Supplementary Figure 6. Lifetime study of transparent PeLED at a constant current density of 10 mA cm⁻².