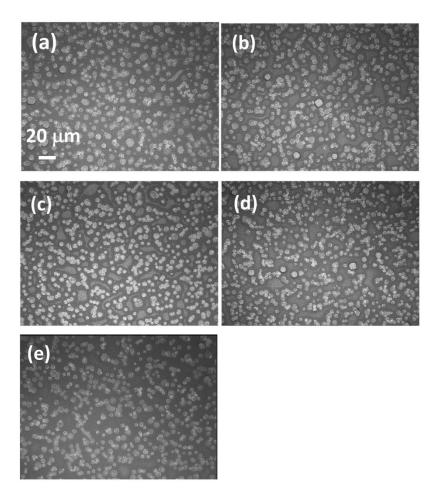
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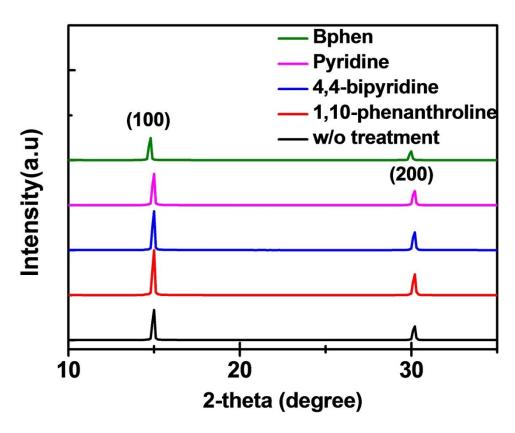
## **Supporting Information**

## Bidentate chelating ligands as effective passivating materials for perovskite lightemitting diodes

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**Figure S1.** The SEM images of the CH<sub>3</sub>NH<sub>3</sub>PbBr<sub>3</sub> thin films after various surface treatments : (a) without any treatment; (b) 1,10-phenanthroline; (c) 4,4'-bipyridine; (d) pyridine; (e) Bphen.



**Figure S2**. The magnified XRD images of the CH<sub>3</sub>NH<sub>3</sub>PbBr<sub>3</sub> thin films after various surface treatments.