

Supporting Information

A CTAB-Mediated Antisolvent Vapor Route to Shale-Like Cs₄PbBr₆ Microplates Showing an Eminent Photoluminescence

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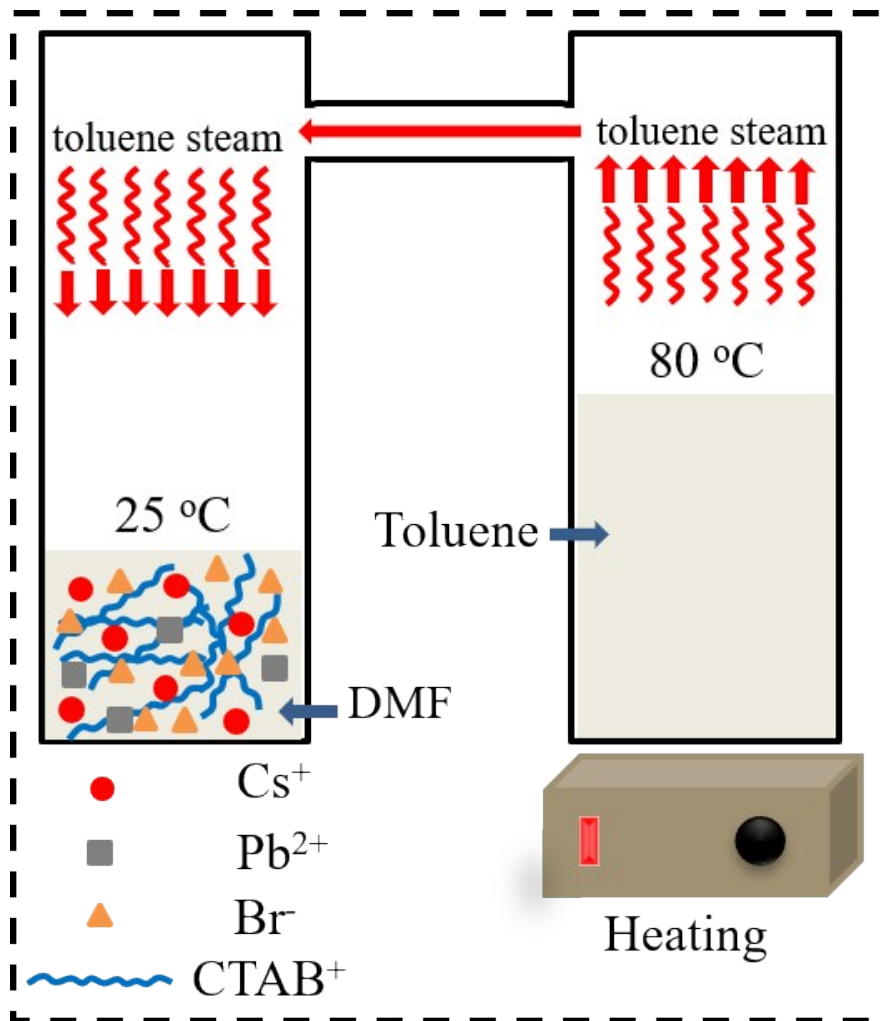


Figure S1. Schematic illustration for the synthesis process of shale-like Cs₄PbBr₆ perovskite microplates.



Figure S2. The corresponding EDS spectrum of the shale-like Cs_4PbBr_6 perovskite microplates in Figure 1d.

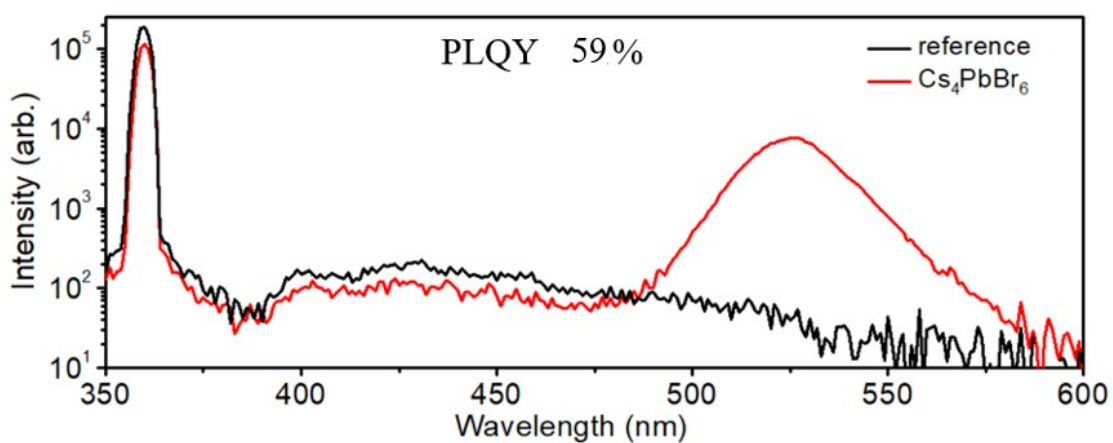


Figure S3. Photoluminescence quantum yield of the as-prepared shale-like Cs_4PbBr_6 perovskite microplates. Black line: reference spectrum, red line: Cs_4PbBr_6 perovskite microplates.

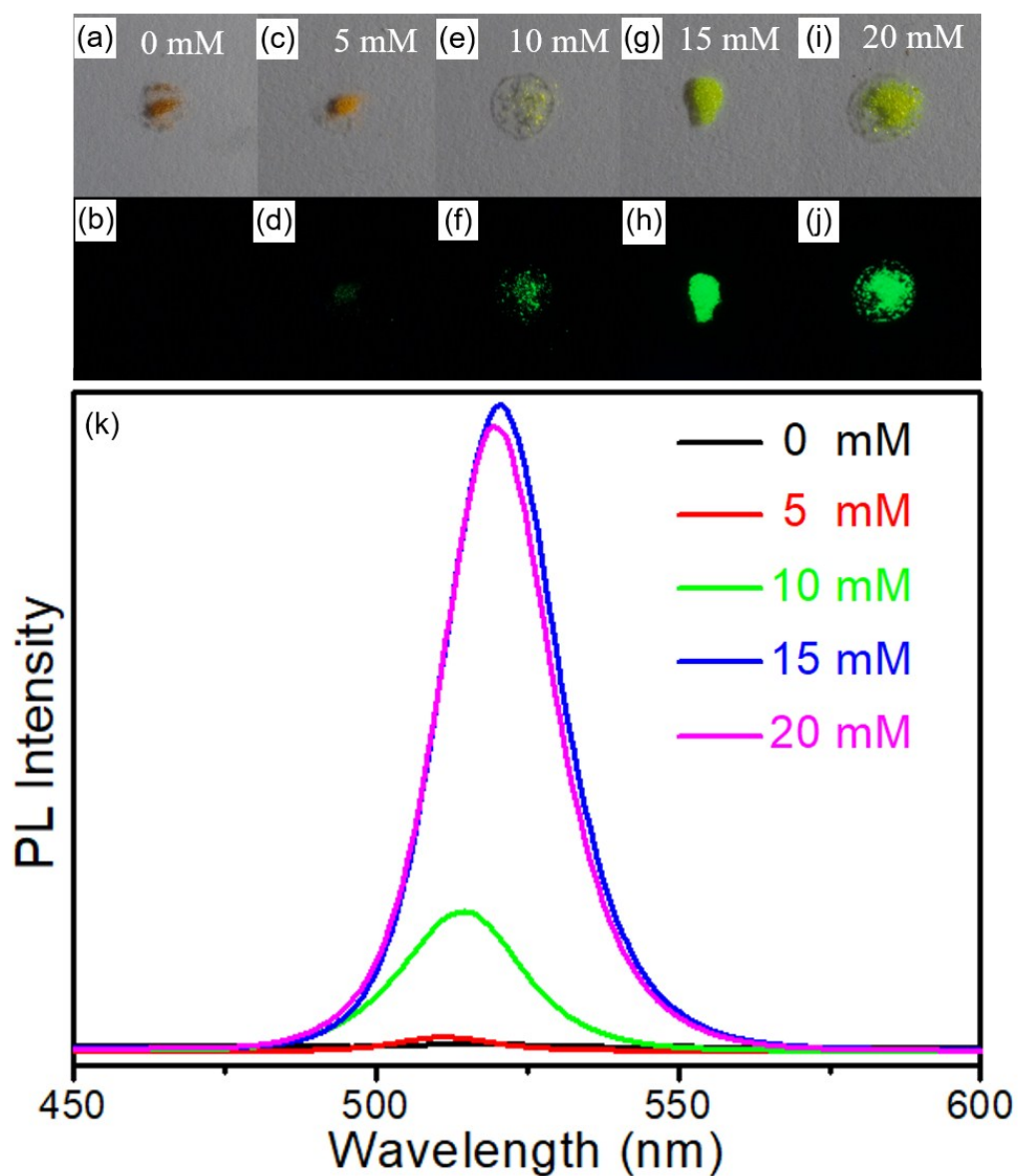


Figure S4. (a), (c), (e), (g), (i) optical microscope pictures under nature light, and (b), (d), (f), (h), (j) fluorescent pictures under 365 nm UV light and (k) PL emission spectra of the perovskite crystals with different concentrations of CTAB from 0 mM to 20 mM.

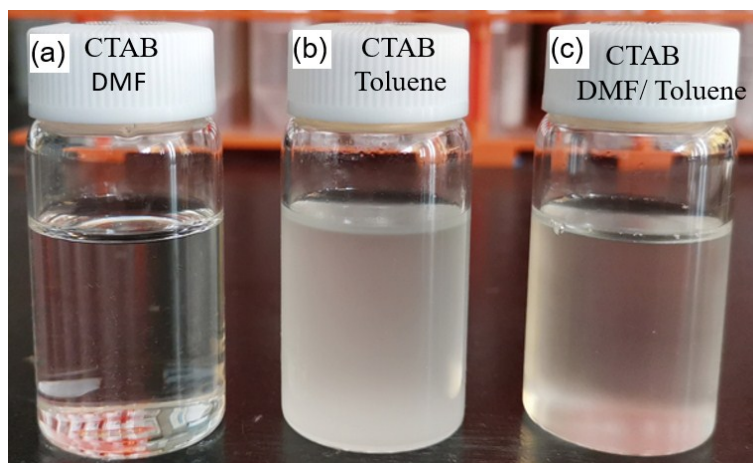


Figure S5. CTAB in (a) DMF, (b) toluene, and (c) the mixed solution of DMF and toluene with volume ratio 2:5.

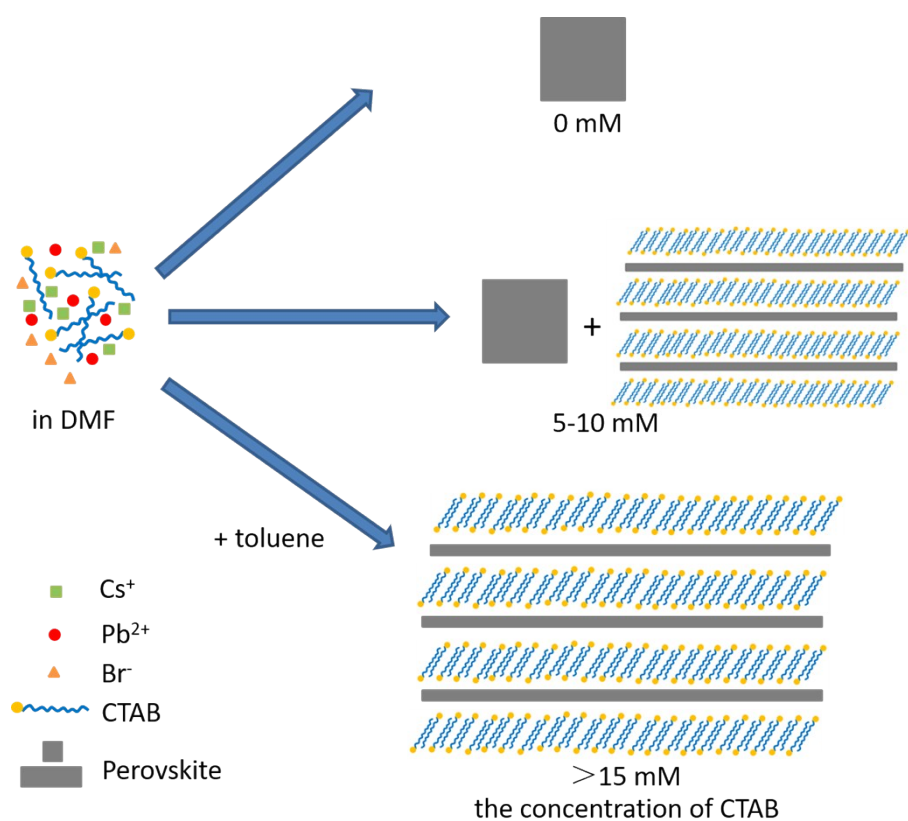


Figure S6. Schematic illustration for the morphologies of Cs₄PbBr₆ perovskite-related materials obtained with CTAB of different concentrations.