

Supplementing Information

Solution Assisted Layer Peeling for Stable and High Efficiency Zn:MAPbBr_xCl_{3-x}@PbBr(OH) Cyan Phosphors

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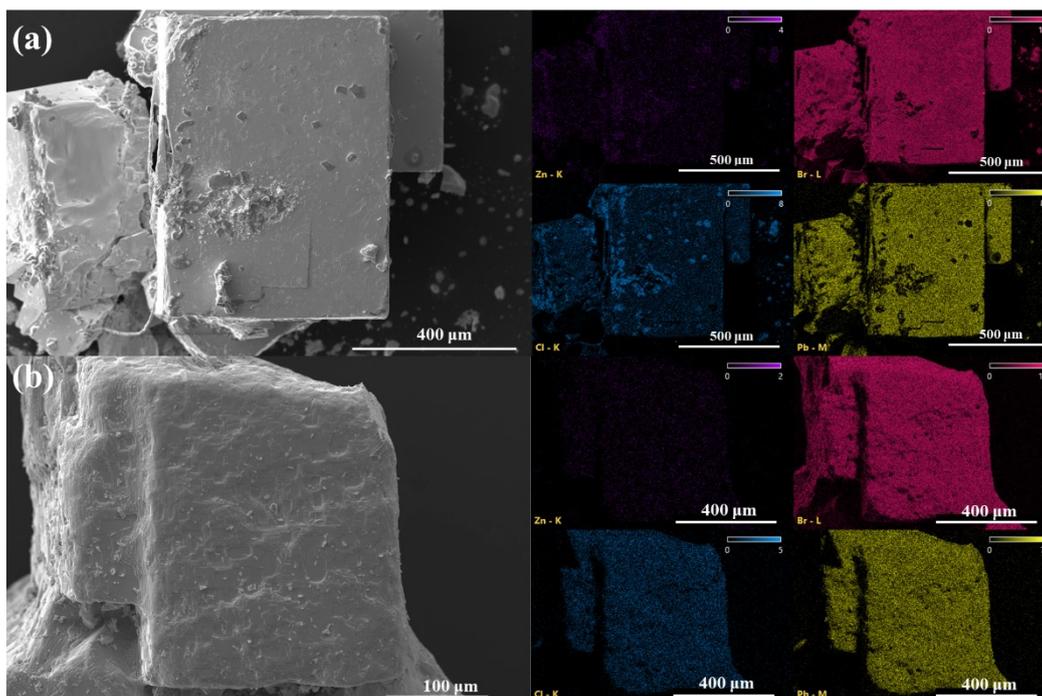


Figure S1. SEM and EDS images of Zn:MAPbBr_{2.2}Cl_{0.8} single crystal surface (a) before and (b) after reaction with mixture solution.

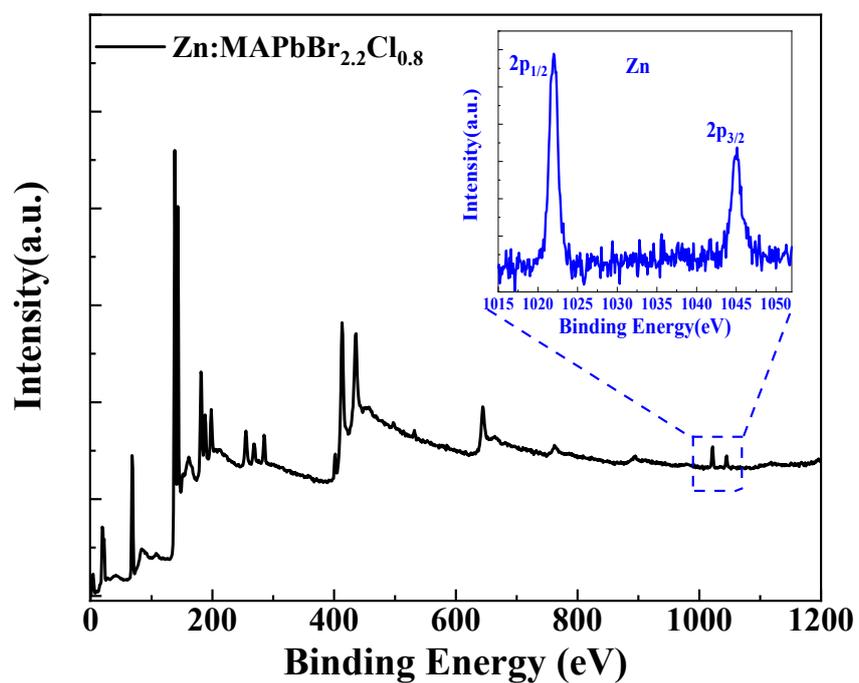


Figure S2. XPS spectra of Zn:MAPbBr_{2.2}Cl_{0.8} single crystal. The insert is the High-resolution XPS spectra corresponding to Zn 2p for Zn:MAPbBr_{2.2}Cl_{0.8}.

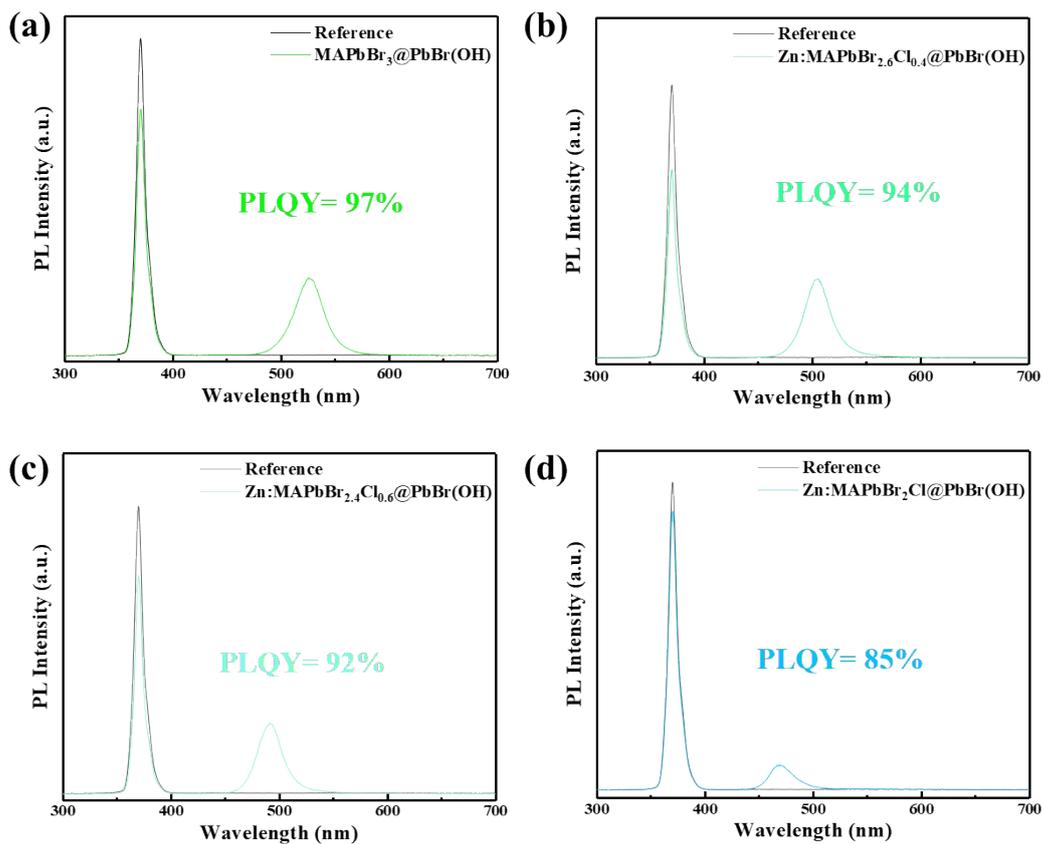


Figure S.3 The PLQYs of Zn:MAPbBr_xCl_{3-x}@PbBr(OH) with different Br ratios.

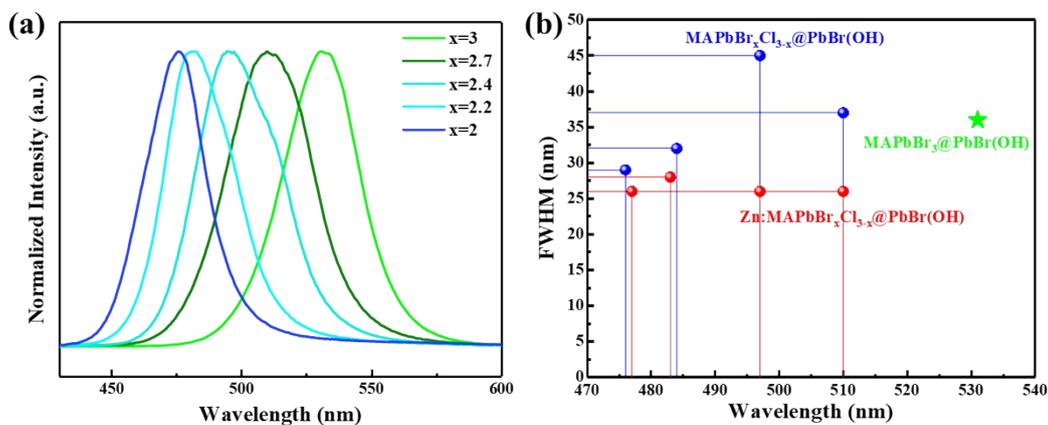


Figure S4. (a) The PL spectra of the MAPbBr_xCl_{3-x}@PbBr(OH) with different Br ratios. (b) Comparison with FWHM of the Zn:MAPbBr_xCl_{3-x}@PbBr(OH) and MAPbBr_xCl_{3-x}@PbBr(OH) phosphor.

Table S1. Atomic ratios of Pb and Br elements of the Zn:MAPbBr_{2.2}Cl_{0.8}@PbBr(OH) characterized by XPS.

Sample	Br (At%)	Pb (At%)	Br/Pb
Zn:MAPbBr _{2.2} Cl _{0.8} @PbBr(OH)	31.4	24.8	1.3

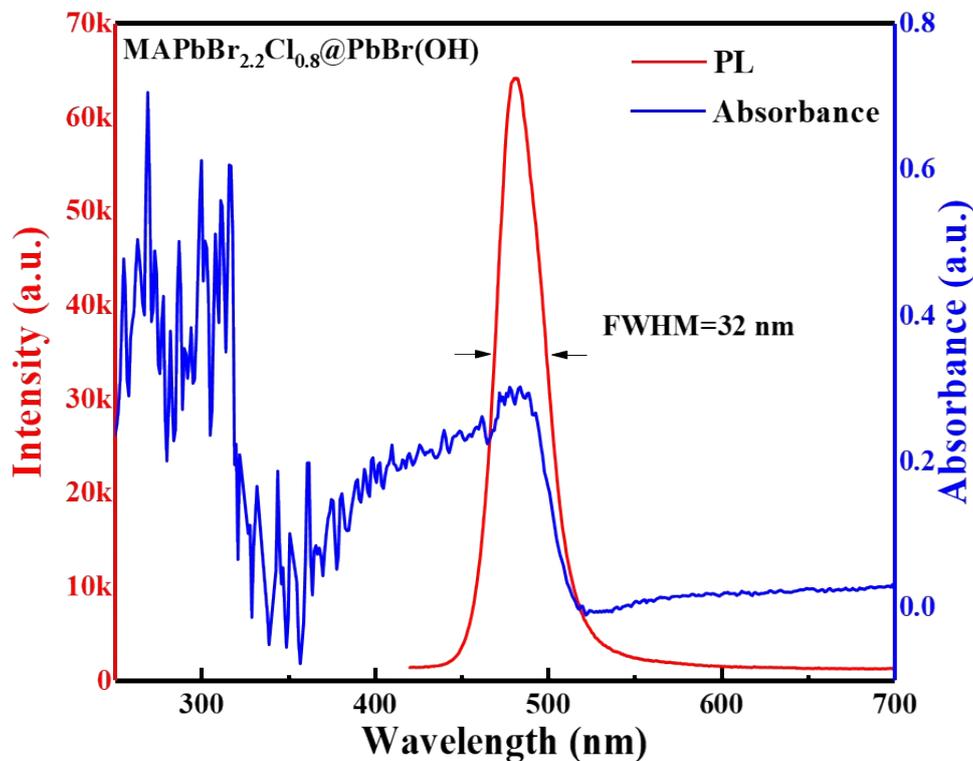


Figure S5. PL spectra and UV-Vis absorbance of the MAPbBr_{2.2}Cl_{0.8}@PbBr(OH).