Supplementary Materials

Facile Synthesis and Optical Properties of $CsPbX_3$/ZIF-8 Composites for Wide-Color-Gamut Display

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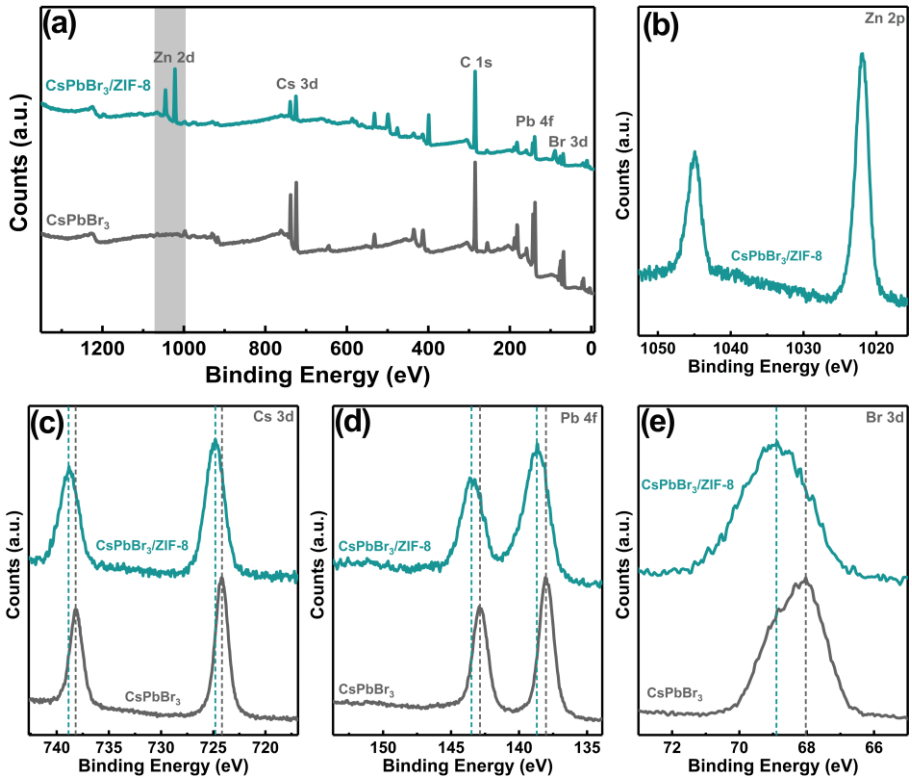

Figure S1. (**a**) XPS spectra of $CsPbBr_3$ QDs and $CsPbBr_3$/ZIF-8 composite and binding energy spectra of (**b**) Zn 2p, (**c**) Cs 3d, (**d**) Pb 4f and (**e**) Br 3d for the comparison.

Table S1. The atomic ratio of each component in $CsPbBr_3$ and $CsPbBr_3$/ZIF-8.

Sample	C/atom. %	Cs/atom. %	Pb/atom. %	Br/atom. %	Zn/atom. %
$CsPbBr_3$	82.72	3.61	2.81	10.86	—
$CsPbBr_3$/ZIF-8	84.99	1.52	1.04	4.02	8.43

Table S2. Relevant parameters of the synthesized $CsPbX_3$ and $CsPbX_3$/ZIF-8 powders.

Sample	λem (nm)	FWHM (nm)	PL QY (%)	PL decay (ns)
$CsPbBr_3$	516	20	33.6%	12.55
$CsPbBr_3$/ZIF-8	521	20	41.2%	18.39
$CsPbBr_{1.2}I_{1.8}$	636	31	29.1%	26.82
$CsPbBr_{1.2}I_{1.8}$/ZIF-8	643	31	34.8%	30.29

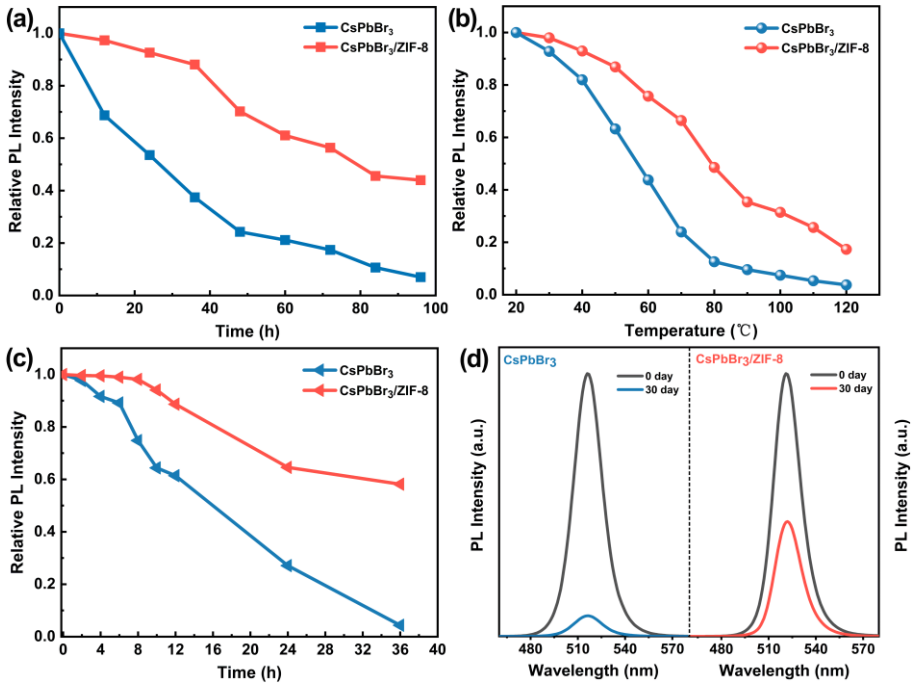

Figure S2. (**a**) Photostability, (**b**) thermal stability, (**c**) moisture resistance and (**d**) long-term storage stability test of $CsPbBr_3$ QDs and $CsPbBr_3$/ZIF-8 composites.

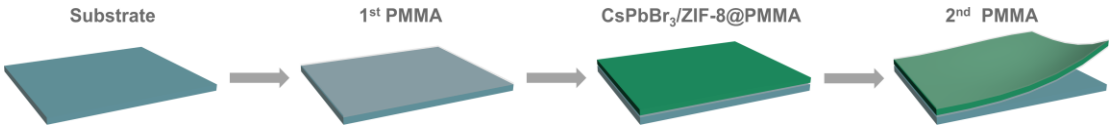

Figure S3. Schematic representation of the preparation process of $CsPbBr_3$/ZIF-8@PMMA film.