

Highly luminescent red emissive perovskite quantum dots embedded composite films: ligands capping and caesium doping controlled crystallization process

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Table S1 The fitted lifetimes using the data tested in Fig. S2.

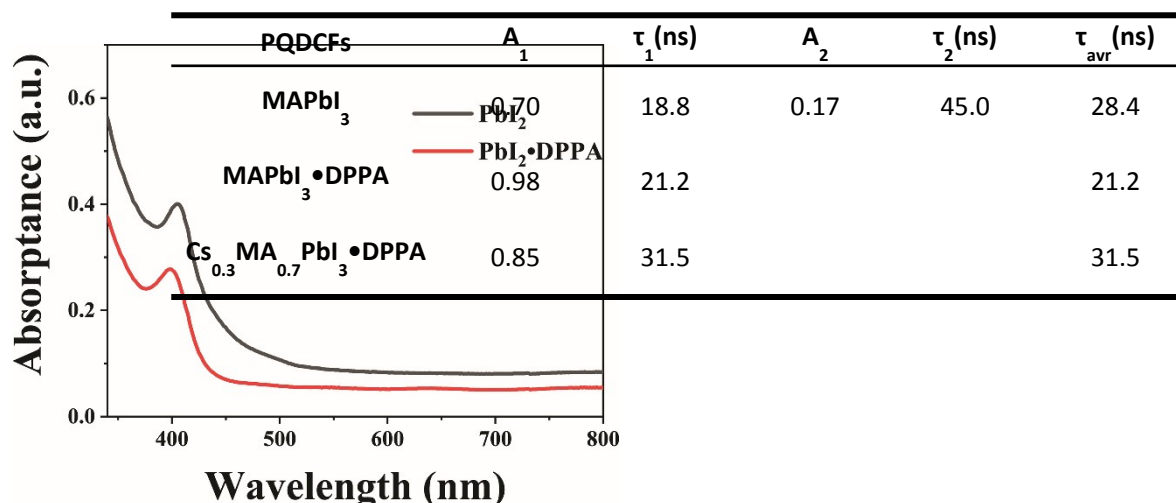


Fig. S1 The absorption spectra comparison between PbI₂ and PbI₂•DPPA based films.

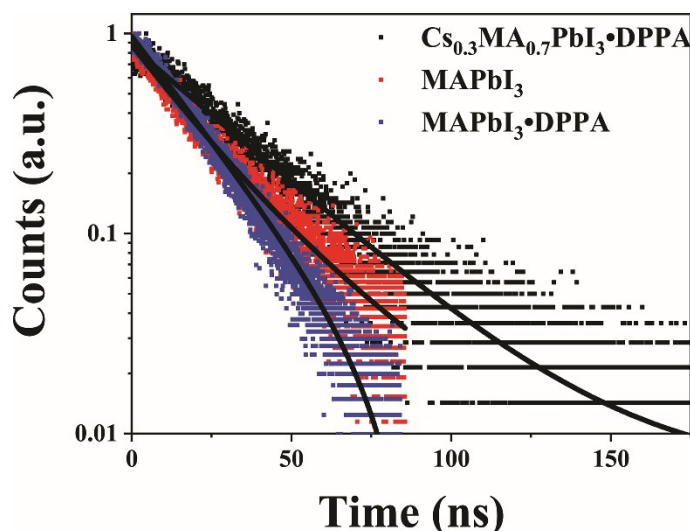


Fig. S2 The room temperature time-resolved PL spectra of MAPbI₃, MAPbI₃•DPPA and Cs_{0.3}MA_{0.7}PbI₃•DPPA based PQDCFs tested at their peak positions.

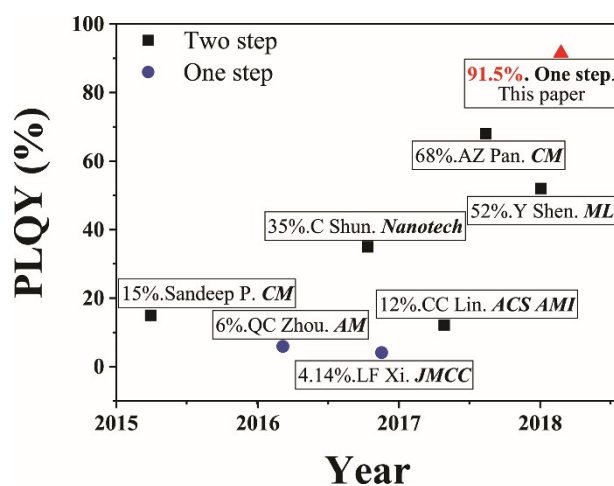


Fig. S3 The statistics of the PLQY about the combination of perovskite red QDs with polymers in recent four years; the red triangle stands for the result in this work.¹⁻⁷

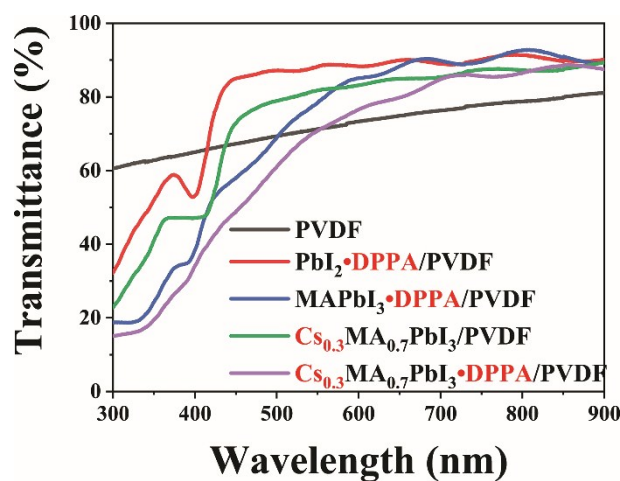


Fig. S4 The transmittance spectra of PVDF, $\text{PbI}_2 \cdot \text{DPPA}$, $\text{MAPbI}_3 \cdot \text{DPPA}$, $\text{Cs}_{0.3}\text{MA}_{0.7}\text{PbI}_3$ and $\text{Cs}_{0.3}\text{MA}_{0.7}\text{PbI}_3 \cdot \text{DPPA}$ PQDCFs.

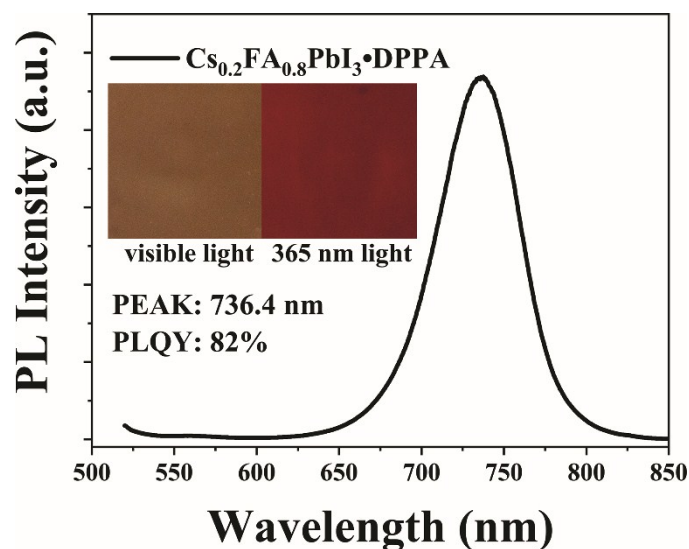


Fig. S5 The photoluminescence spectra of $\text{Cs}_{0.2}\text{FA}_{0.8}\text{PbI}_3 \cdot \text{DPPA}$ based PQDCFs fabricated at 60 °C in the air. The inserts are the photographs of corresponding films under visible and 365 nm UV light.

Notes and references

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