

High-throughput preparation of Mn²⁺-doped CsPbCl₃ nanocrystals via fluidic channel reaction

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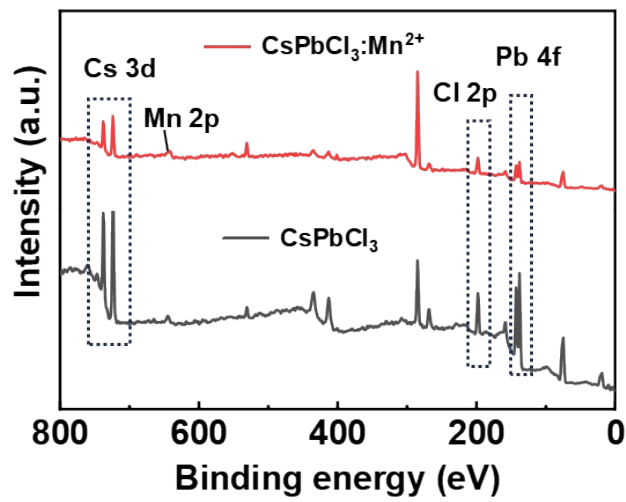


Fig. S1 XPS spectra of survey.

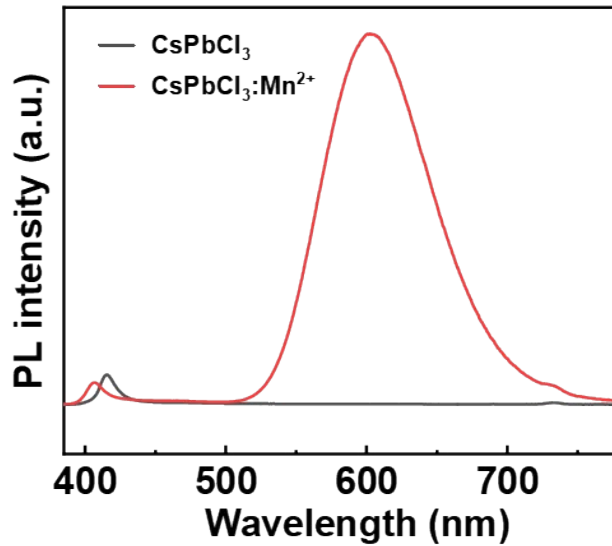


Fig. S2 PL spectra of undoped and Mn-doped CsPbCl_3 NCs.

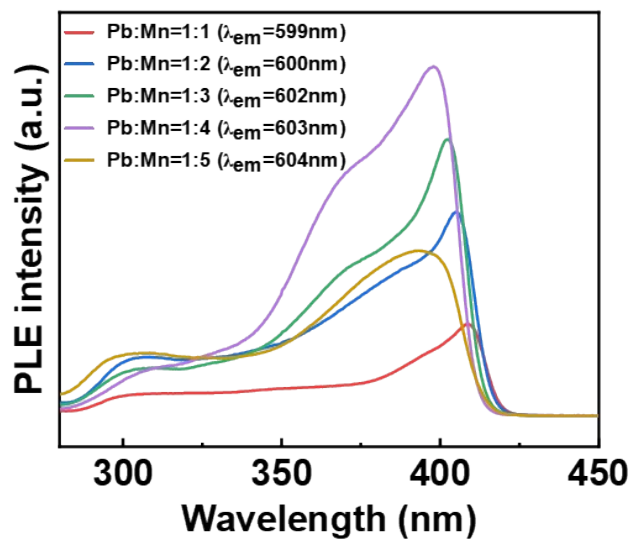


Fig. S3 PLE spectra of Mn-doped CsPbCl_3 NCs monitored at the optimal emission wavelength (599 nm, 600 nm, 602 nm, 603 nm, 604 nm for samples with Pb:Mn ratio of 1:1, 1:2, 1:3, 1:4 and 1:5, respectively).

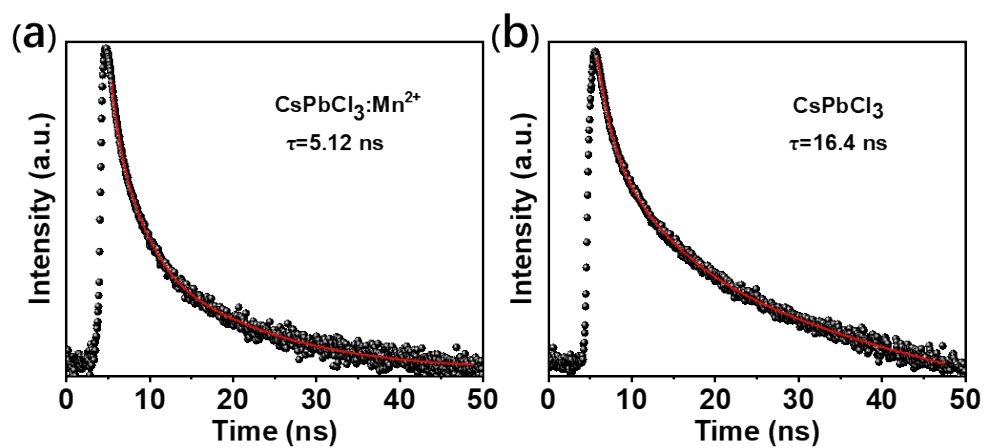


Fig. S4 Time-resolved PL spectra of (a) Mn-doped CsPbCl₃ NCs of excitonic emission and (b) undoped CsPbCl₃:Mn²⁺ NCs.

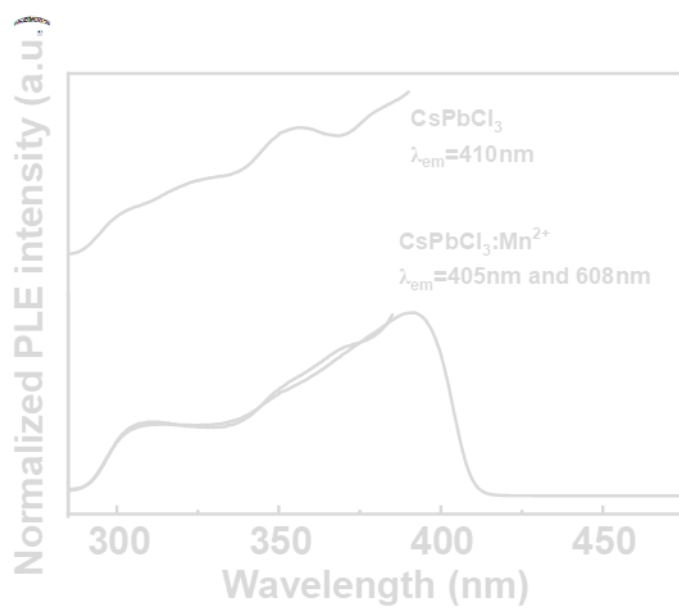


Fig. S5 Comparison of Normalized PLE spectra for undoped CsPbCl₃ and Mn-doped CsPbCl₃ NCs.

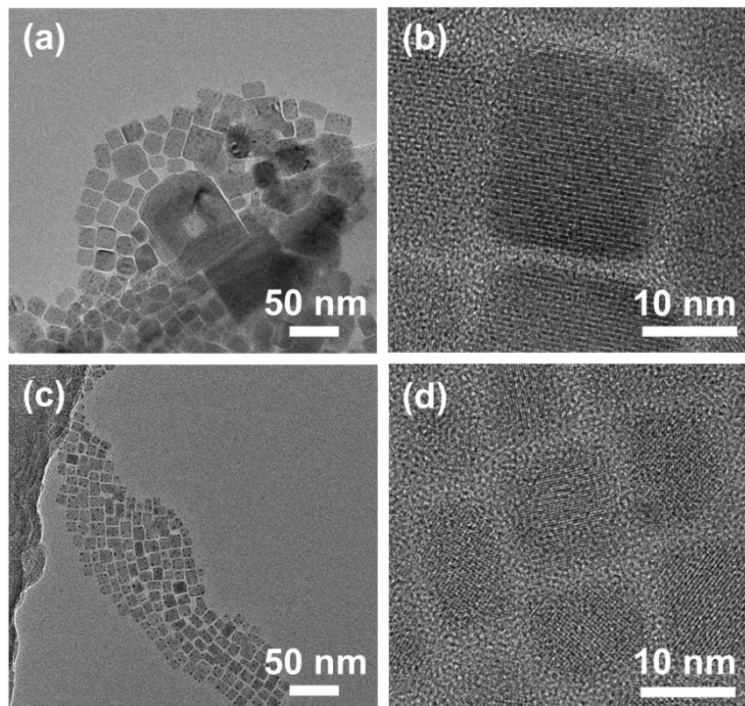


Fig. S6 TEM images of Mn-doped CsPbCl₃ NCs synthesized at flow rates of (a, b) 200 μL/min and (c, d) 1000 μL/min.

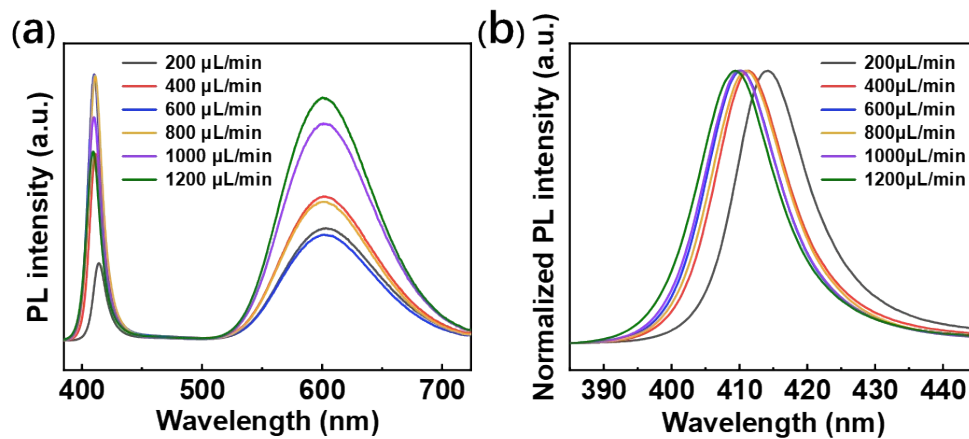


Fig. S7 PL Spectra of (a) Mn-doped CsPbCl₃ NCs at different flow rates and (b) Normalized spectrum at 410nm.

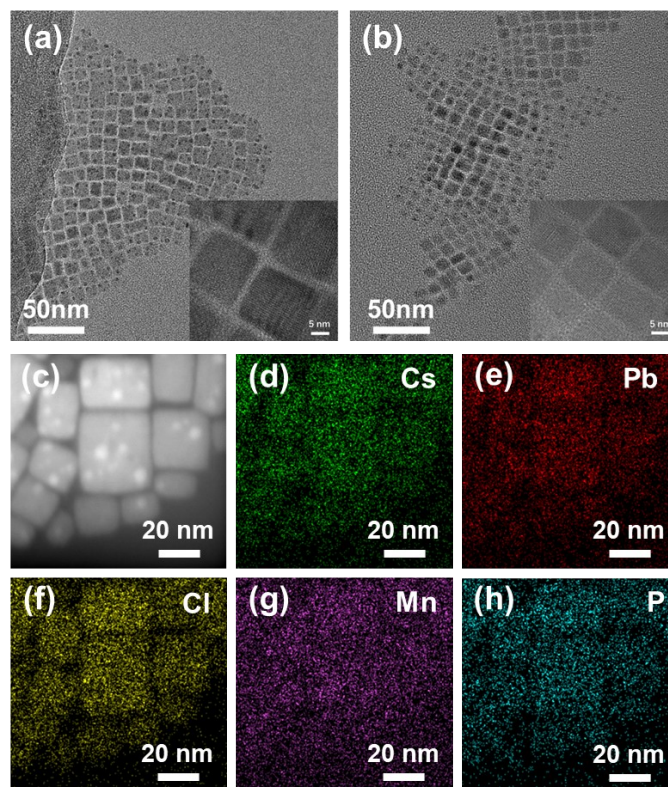


Fig. S8 TEM images of Mn-doped CsPbCl₃ NCs prepared by (a) the fluidic channel reaction strategy and (b) hot injection method, and mapping images (c-h) of Mn-doped CsPbCl₃ NCs prepared by the fluidic channel reaction strategy.

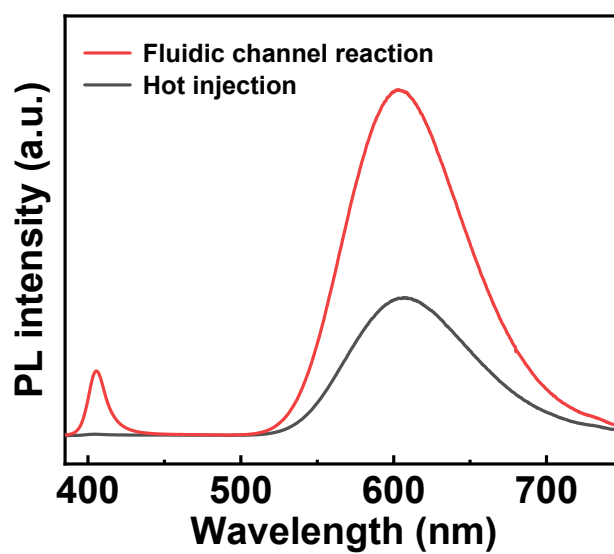


Fig. S9 PL spectra of the Mn-doped CsPbCl₃ samples prepared by the fluidic channel reaction and hot injection method.

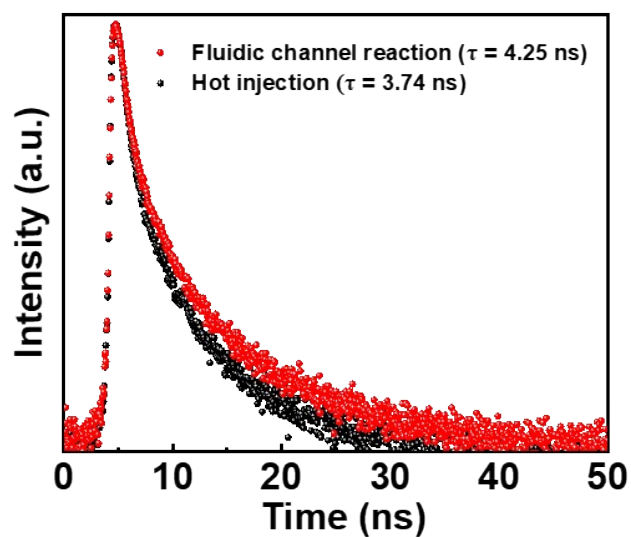


Fig. S10 Time resolved PL lifetime of the Mn-doped CsPbCl₃ samples prepared by the fluidic channel reaction and hot injection methods.

Table S1 Reaction time corresponding to different flow rate

Flow rate (μL/min)	200	400	600	800	1000	1200
Reaction time (s)	37.68	18.84	12.56	9.42	7.54	6.28