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Supplementary Information

Synthesis and optical wireless communication application of high efficiency extreme blue $CsPbBr_3$ nanoplates

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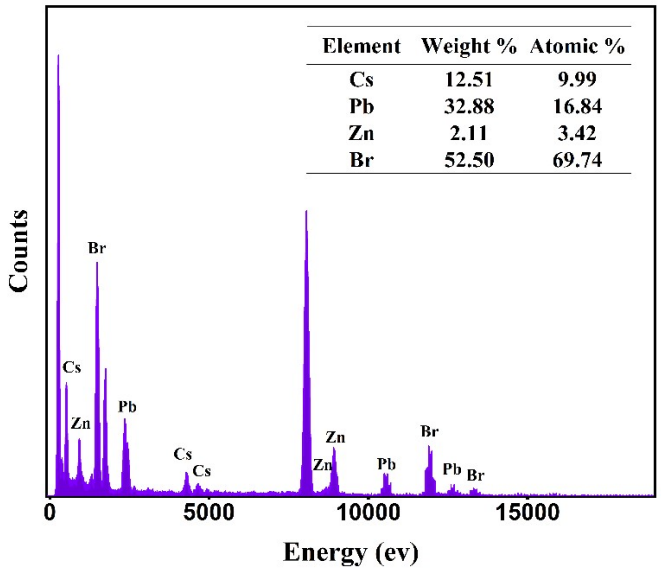

Fig. S1 The atomic percent of $CsPbBr_3$ NPls quantified semiquantitatively from EDS.

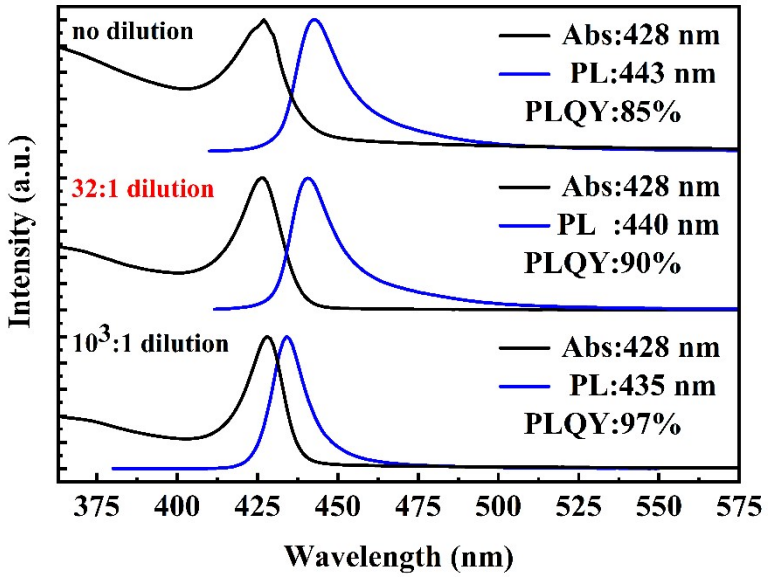

Fig. S2 Spectrum features (absorbance and PL) and PLQY contrast of $CsPbBr_3$ NPls solution with different dilution degree.

According to the results, the absorption peak remained unchanged and was located near 428nm with increasing dilution degree, meaning good stability and optical properties consistency of $CsPbBr_3$ nanoplatelets. The photoluminescence peak redshifts from 443 nm (no dilution), 440 nm (32 times dilution) to 435 nm (1000 times dilution) with increasing dilution degree. Meanwhile, the PLQY increases with increasing dilution degree. Reabsorption phenomenon is responsible for both the change of PL and PLQY. In short, the $CsPbBr_3$ nanoplatelets material still maintains high stability and good optical properties according to our additional experimental results.