

Supporting Information

Designing highly luminescent nanocrystals embedded bulk single crystals for X-ray scintillators

Yinsheng Xu, Xiaoxi Li, Mengling Xia^{*}, Xianghua Zhang

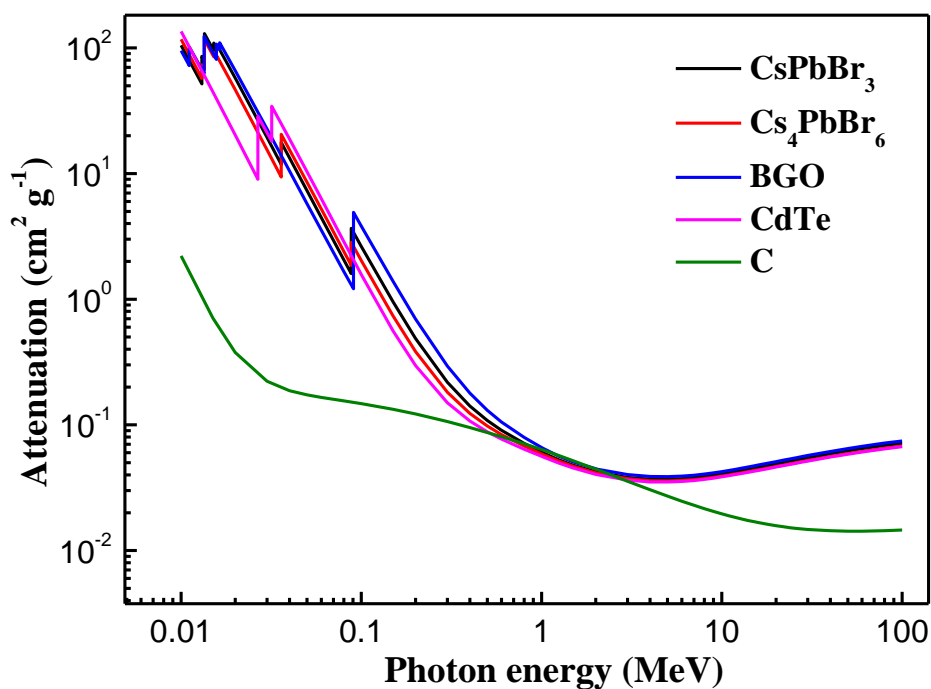


Figure S1. Attenuation coefficient of CsPbBr_3 , Cs_4PbBr_6 and some traditional detection materials towards high-energy photons.

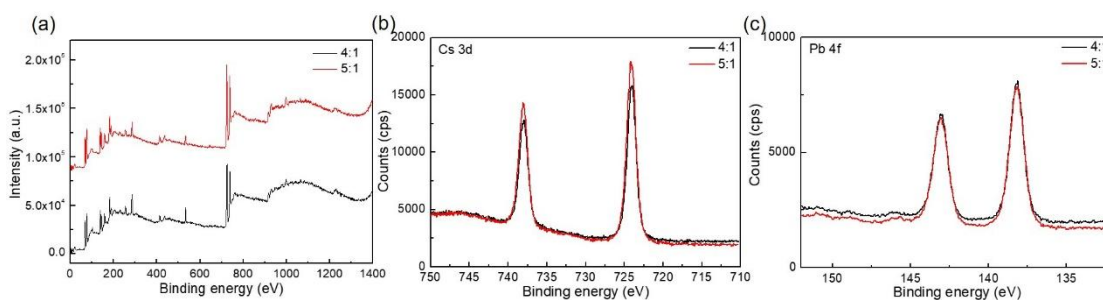


Figure S2. (a) Overall XPS spectra, high-resolution XPS spectra of (b) Cs 3d and (c) Pb 4f of the PNCs embedded PSC with $\text{CsBr}/\text{PbBr}_2=4:1$ and $5:1$.

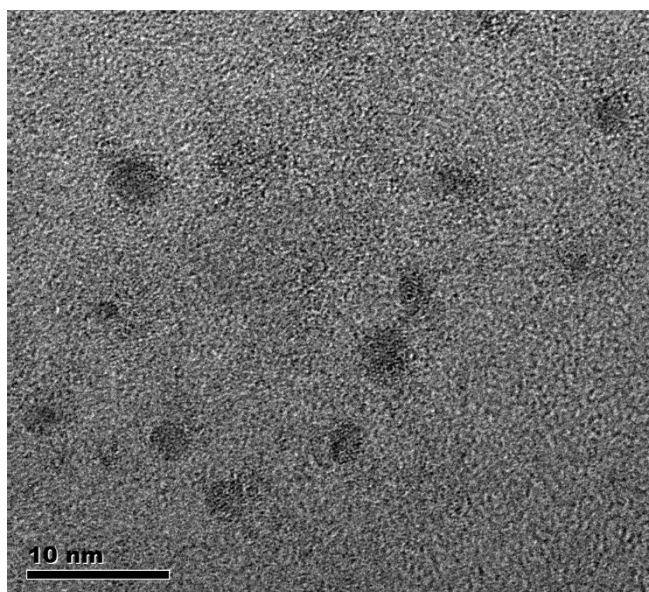


Figure S3 TEM image of PNCs embedded PSC with a few of nanosized NCs inside.

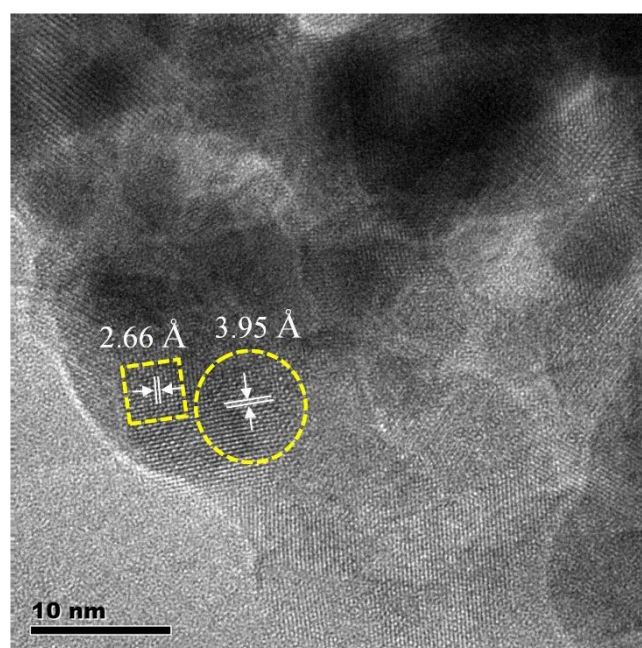


Figure S4 HRTEM image of PNCs embedded PSC.

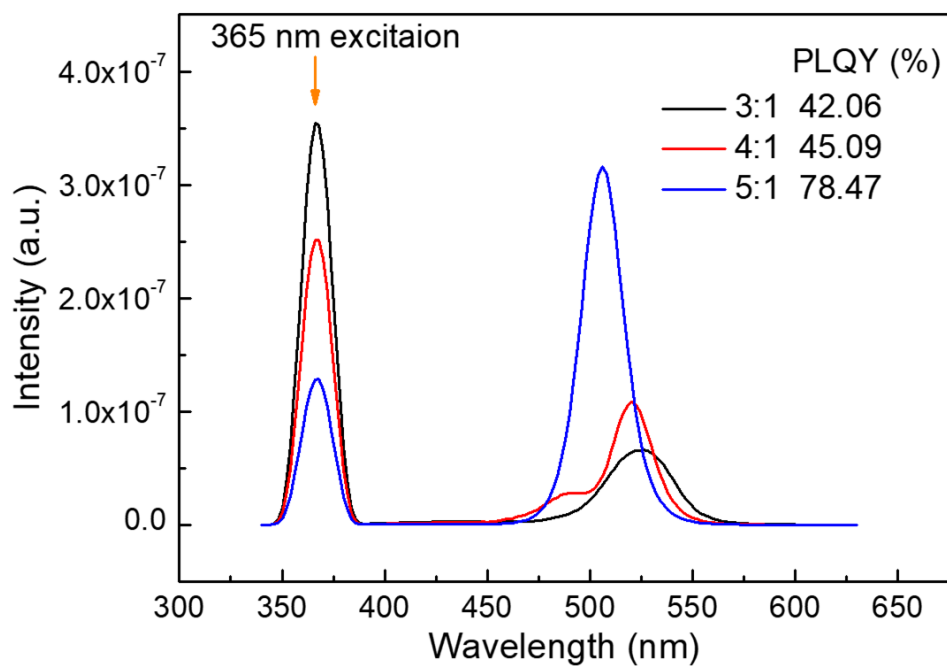


Figure S5 PLQY spectra of PNCs embedded PSC excited by 365 nm measured from an integrating sphere.

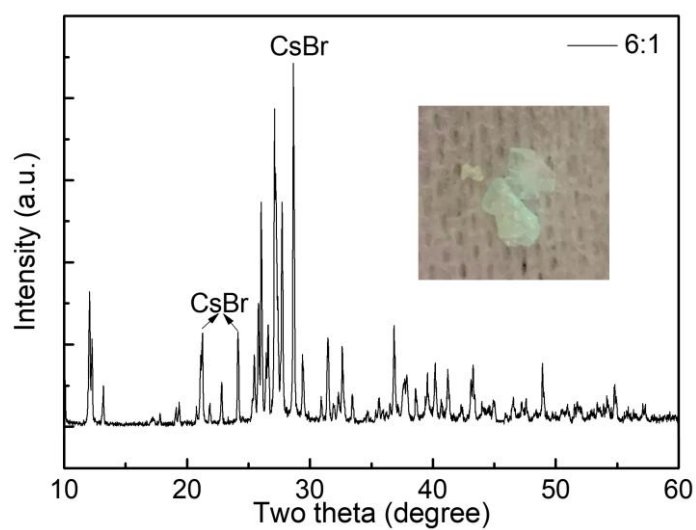


Figure S6 XRD pattern of PNCs embedded PSC with the ratio of CsBr/PbBr₂=6:1. The inset is the corresponding photo image of the crystals excited by 365 nm LED.