Electronic Supplementary Information

Design Optimization of $CsPbBr_3$ Nanocrystals into Zeolite Beta as Ultra-Stable Green Emitters for Backlight Display Applications

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Figure captions

Fig. S1 a XRD patterns of zeolite Beta **b** SEM image of pure zeolite Beta.

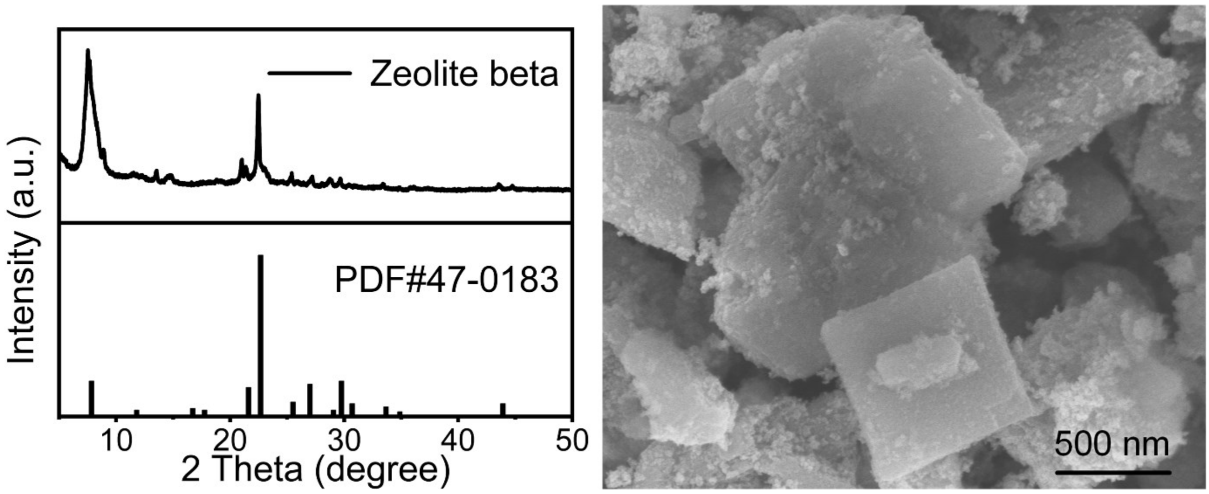
Fig. S2 UV-Vis absorption spectra of $CsPbBr_3$–Beta at different calcination temperature when the mass ratio of ($CsBr$ + $PbBr_2$): Zeolite Beta = 1: 5.

Fig. S3 UV-Vis absorption spectra of $CsPbBr_3$–Beta at different mass ratio when calcined at 600 ^oC.

Fig. S4 Absorption (black line) and emission (green line) spectra of $CsPbBr_3$-Beta. Inset is its photograph under sunlight and UV illumination at 365 nm.

Fig. S5 a XPS spectrum of $CsPbBr_3$–Beta composite; **b** Cs 3d, Pb 4f, Br 3d, Si 2p, O 1s spectra of $CsPbBr_3$–Beta composite, respectively.

Fig. S6 Surface area and pore size of pristine beta and $CsPbBr_3$–Beta ($CsBr$ + $PbBr_2$: Zeolite Beta = 1: 5) calculated with BET/BJH method.



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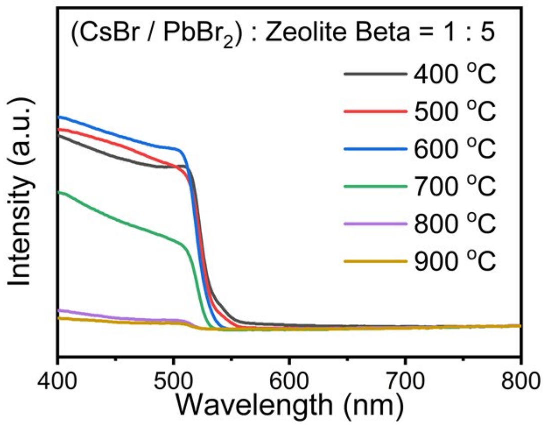

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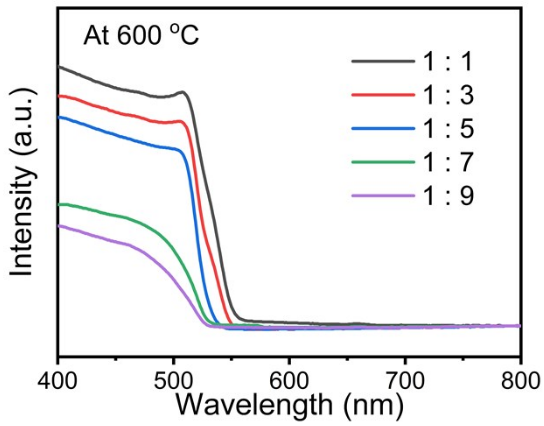

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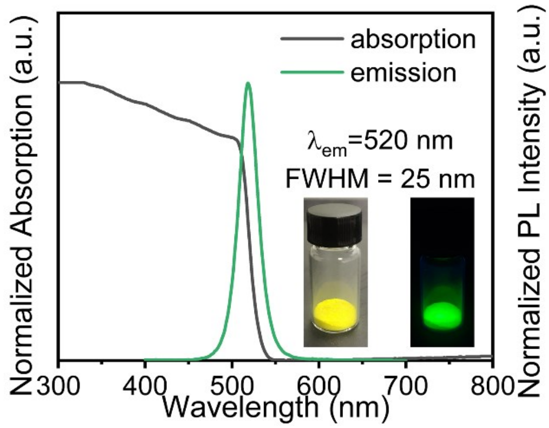

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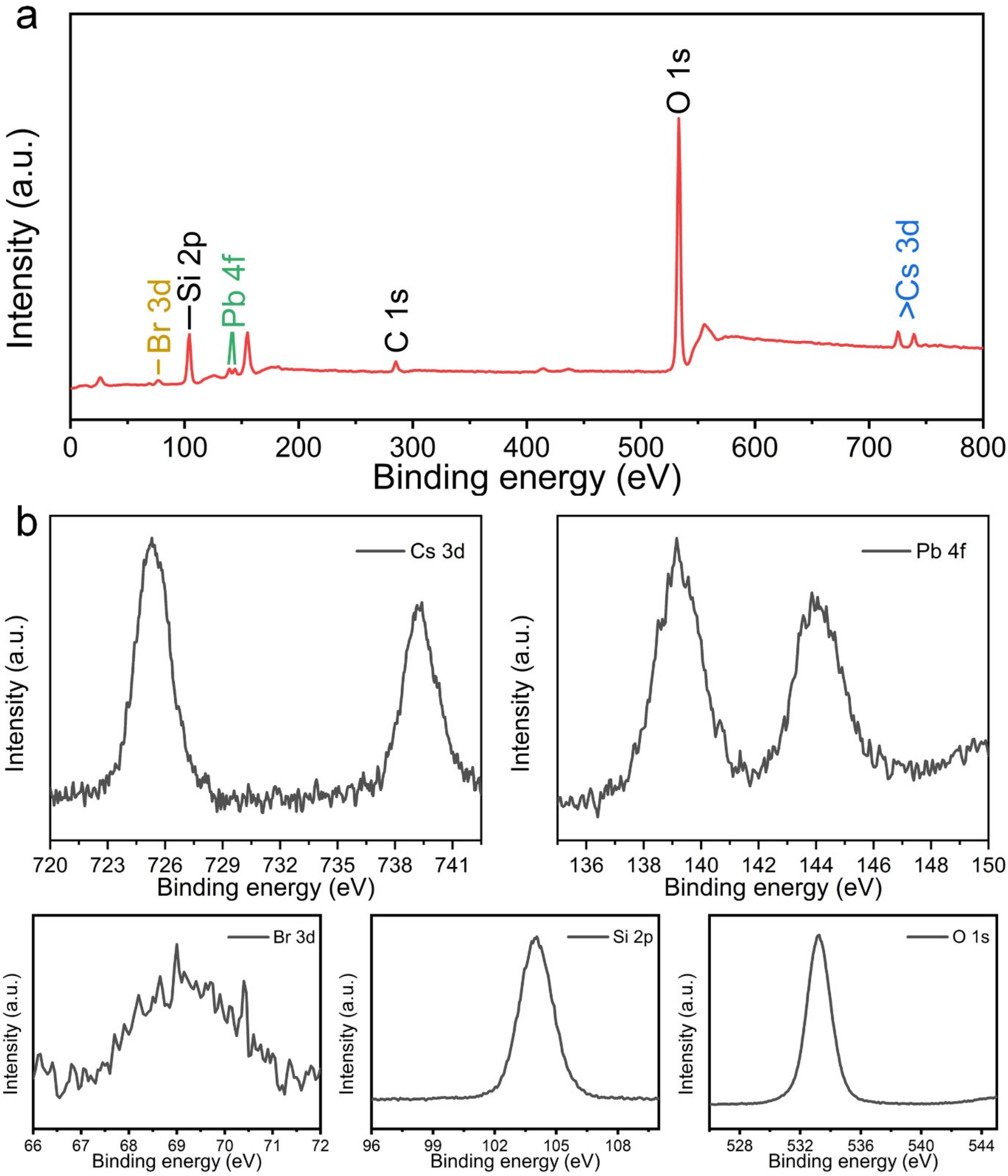

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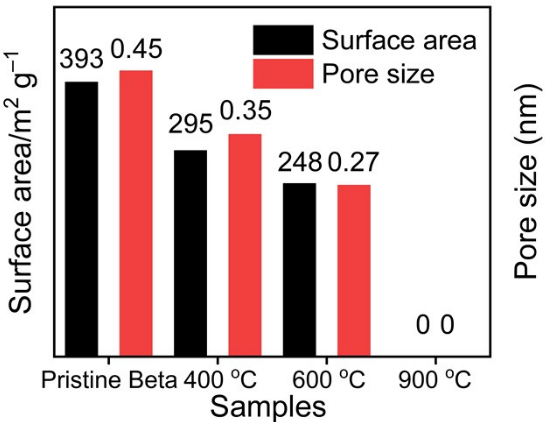

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