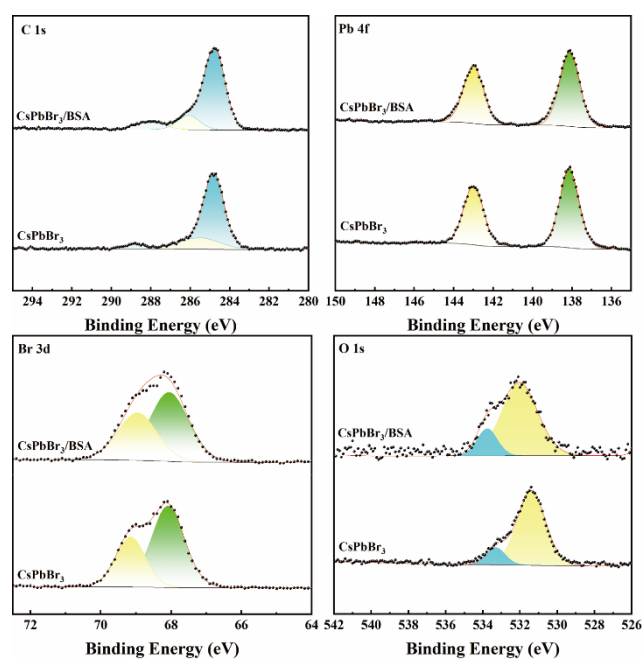
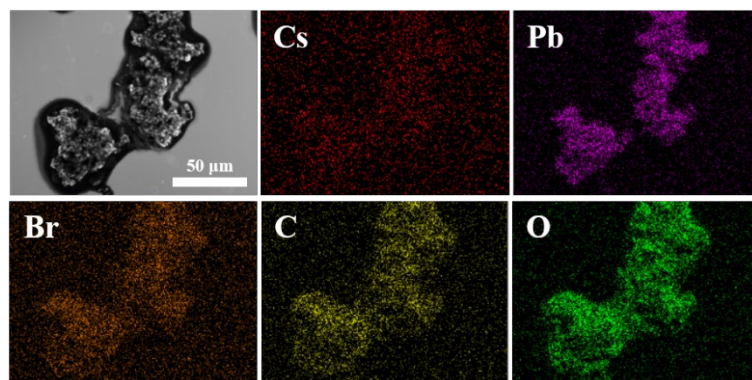


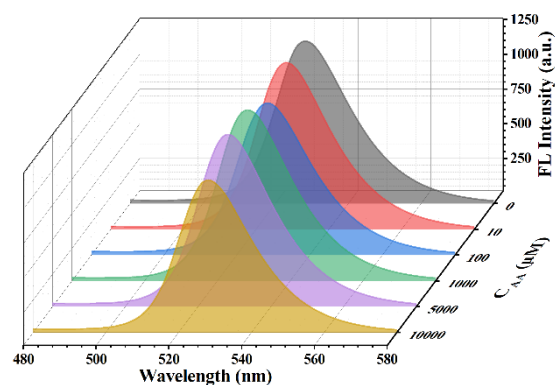
**Figure S1.** EDS digital (TEM) of CsPbBr<sub>3</sub>/BSA NCs.



**Figure S2.** High-resolution XPS scans of CsPbBr<sub>3</sub> and CsPbBr<sub>3</sub>/BSA NCs.



**Figure S3.** EDS of the precipitate resulting from the reaction of CsPbBr<sub>3</sub>/BSA NCs and AA.



**Figure S4.** The fluorescence intensity of CsPbBr<sub>3</sub> NCs (without BSA) with different concentration of AA.

**Table S1.** Comparison with several reported ALP biosensors.

Method	Linear range (U/L)	LOD (U/L)	Reference
Fluorescence	1 - 30	0.92	[1]
Chemiluminescence	0 - 400	0.07	[2]
SERS	0.72 - 3	0.01	[3]
DPV	0.1 - 5	0.03	[4]
EIS	100 - 1000	9.1	[5]
Fluorescence	40 - 500	15.5	This work

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