Supporting Information

Circularly polarized light emission and detection by chiral inorganic semiconductors

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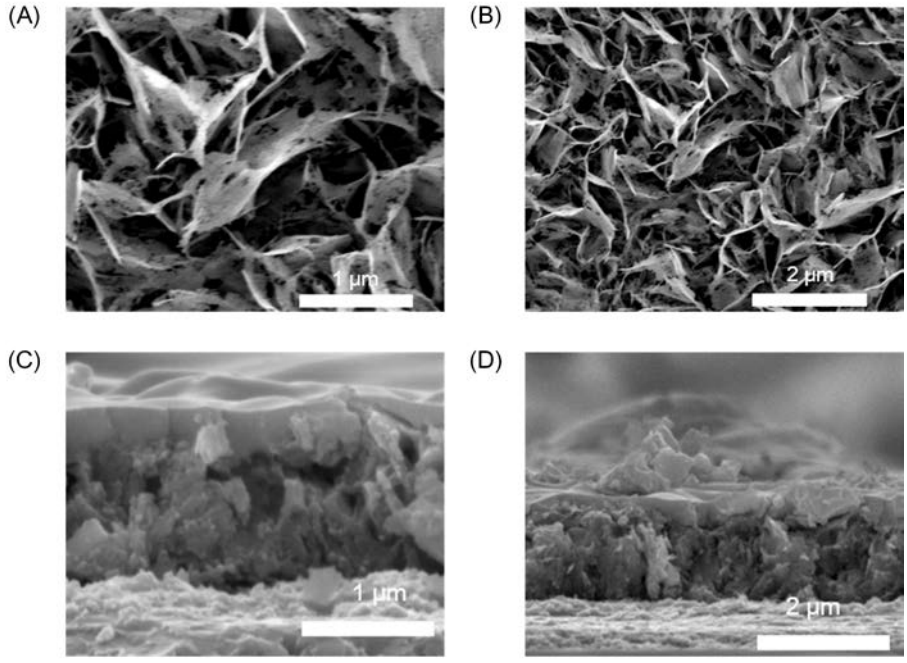

Figure S1. A) and B) The SEM images at varying magnifications of CsPbBr3/ZnO film. C) and D) The cross-section SEM images at varying magnifications of the PbS QDs/ZnO film in our study.

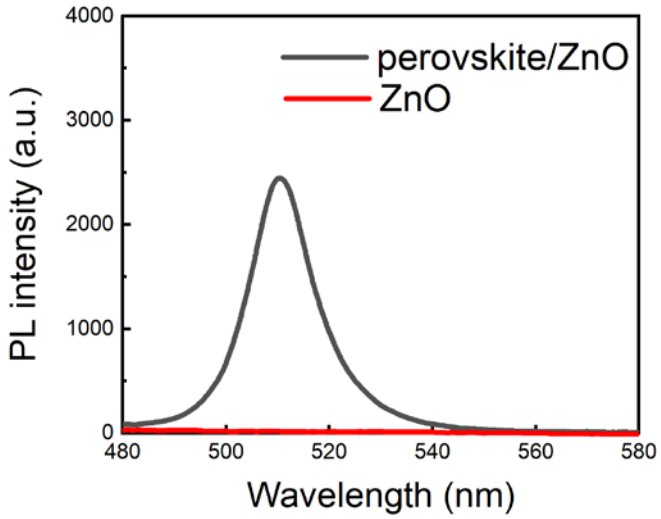

Figure S2. The PL spectra of ZnO film and perovskite $CsPbBr_3$/ZnO film.

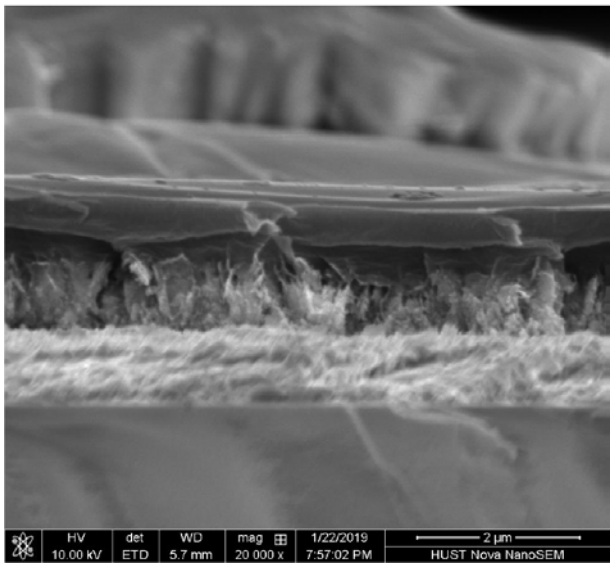

Figure S3. The cross-section SEM image for the $CsPbBr_3$/ZnO with the $CsPbBr_3$ layer lying on the porous ZnO layer and g value of zero for CPL emission.

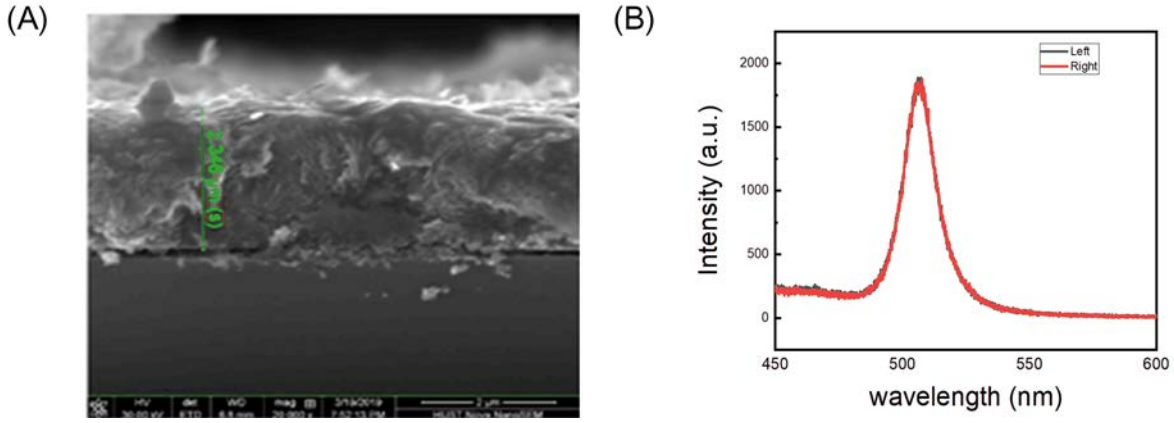

Figure S4. (A) The cross-section SEM image for the $CsPbBr_3$/ZnO with the $CsPbBr_3$ thickness around 2.3 μm. (B) The left-handed and right-handed PL spectrum of this $CsPbBr_3$/ZnO with the zero valued g_{lum}.

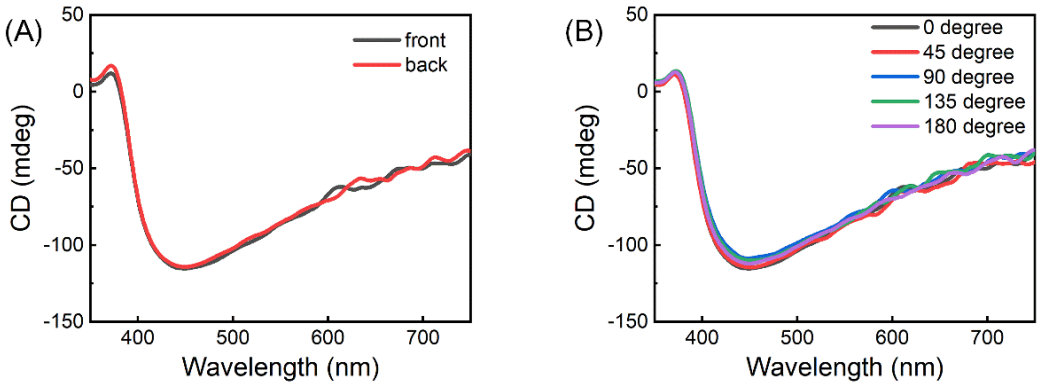

Figure S5. The CD spectra of the ZnO films by measuring (A) from front-side and back-side and (B) with different rotating angles from 0 degree to 180 degree.

Figure S6. The home-made CPL detector system.

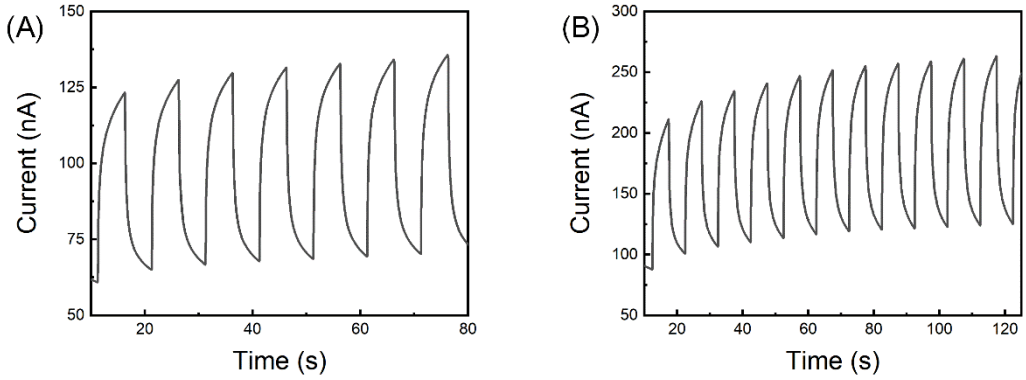

Figure S7. The current-time curve of PbS QDs/ZnO photodetector under the left-/right-handed CPL irradiation with the same power density.

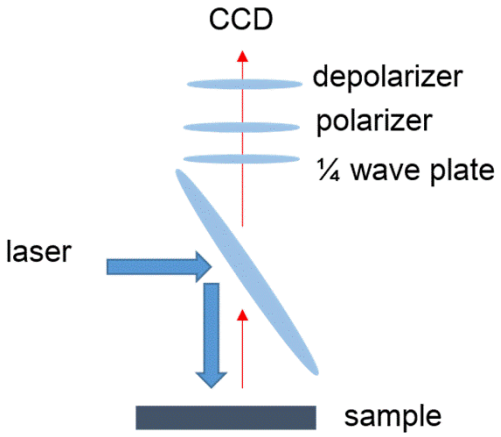

Figure S8. The schema of the home-made Raman spectrometer system with laser source for CPL emission detection.