

ELECTRONIC SUPPLEMENTARY INFORMATION (ESI)

Photoluminescence of PdS₂ and PdSe₂ Quantum Dots

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PtS₂ quantum dots (QDs) characterizations

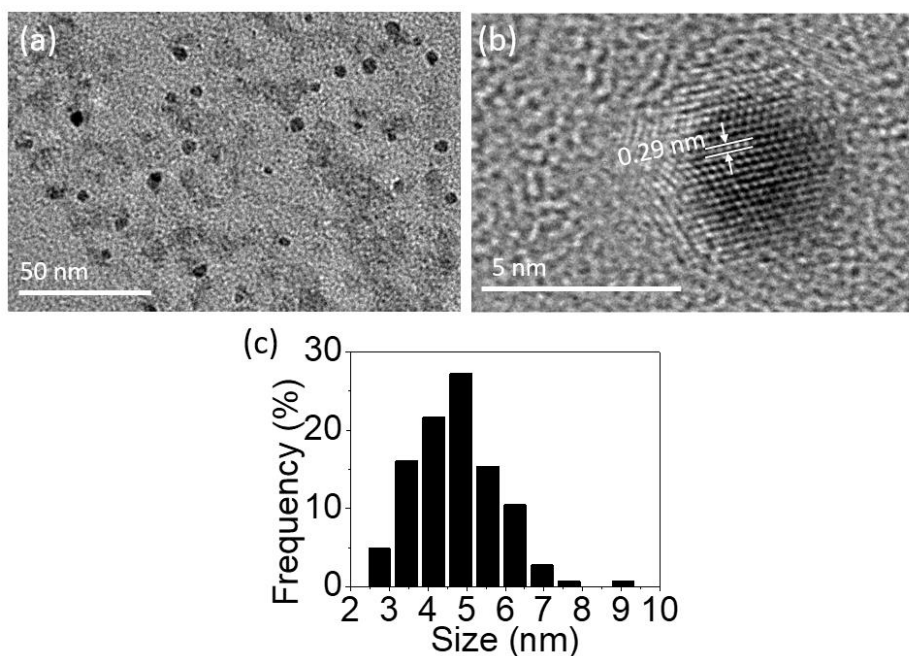


Fig. S1 (a) TEM image; (b) high resolution TEM image; and size distributions based on multiple images of PtS₂ QD.

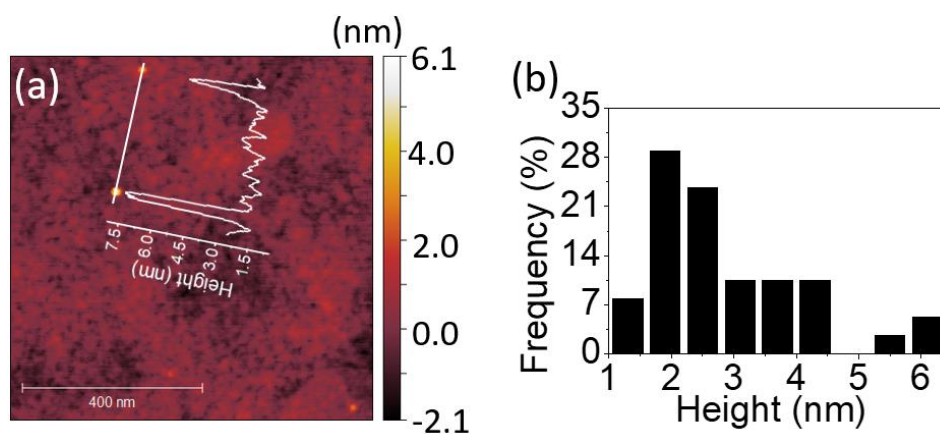


Fig. S2 (a) Line profile and corresponding AFM image; and (b) height distribution of PtS₂ QDs.

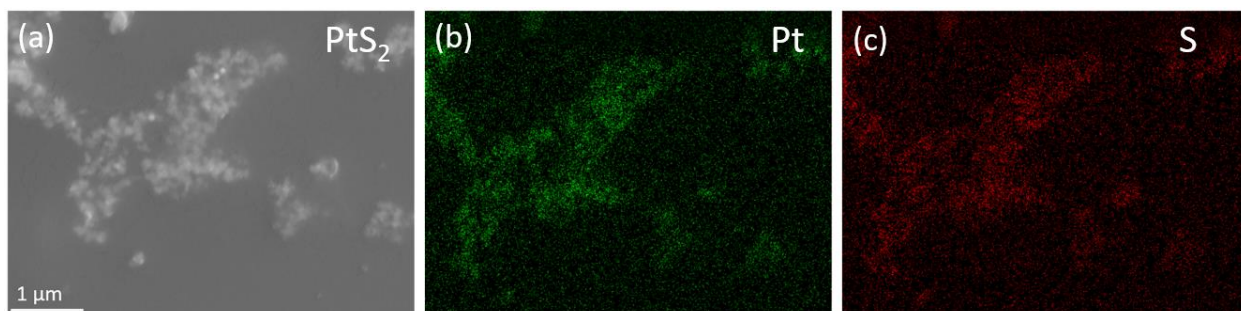


Fig. S3 (a) SEM image of PtS₂ QDs solution drop-casting on silicon substrate; (b-c) EDX elemental maps of Pt and S elements in (a).

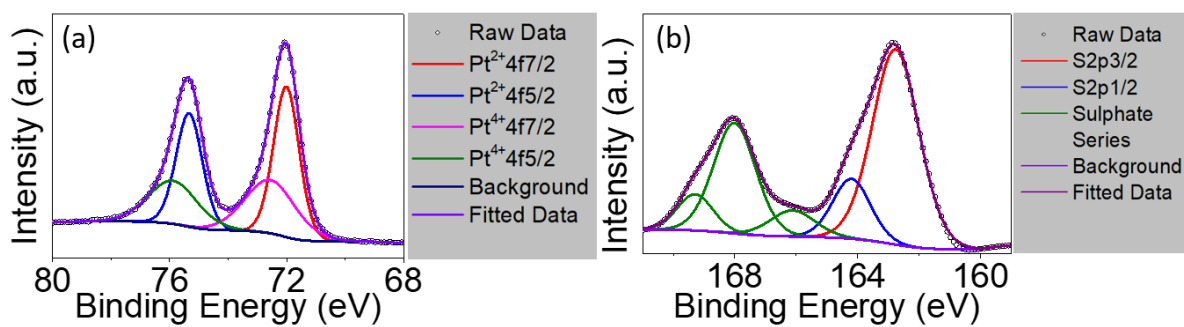


Fig. S4 High resolution X-ray photoelectron spectra of PtS₂ for (a) Pt4f region and (b) S2p region.

PtS₂ QDs optical performances and analyzations

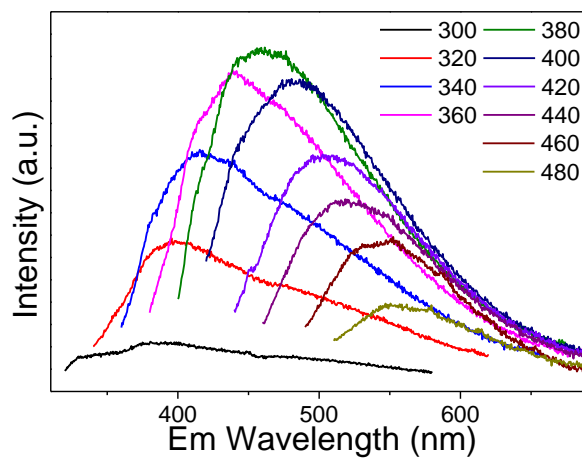


Fig. S5 Emission (Em) spectra of PtS₂ QDs solution.

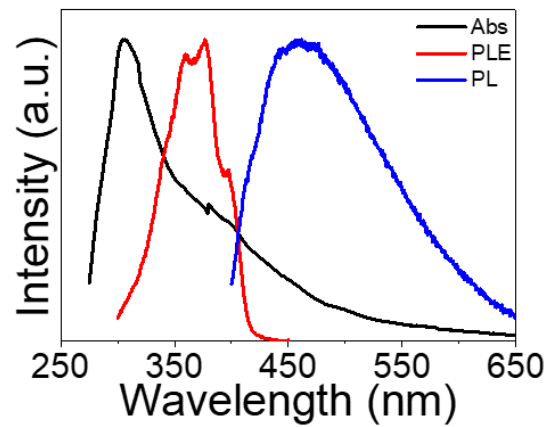


Fig. S6 Normalized absorption spectra (black curve), and photoluminescence excitation (PLE) spectra (red curve) for PtS₂ QDs solution at 468.5 emission wavelengths, which is observed at the peaks of the corresponding emission spectra (blue curve).