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Elastic, electronic and optical properties of the two-dimensional PtX₂ (X=S, Se, and Te) monolayer

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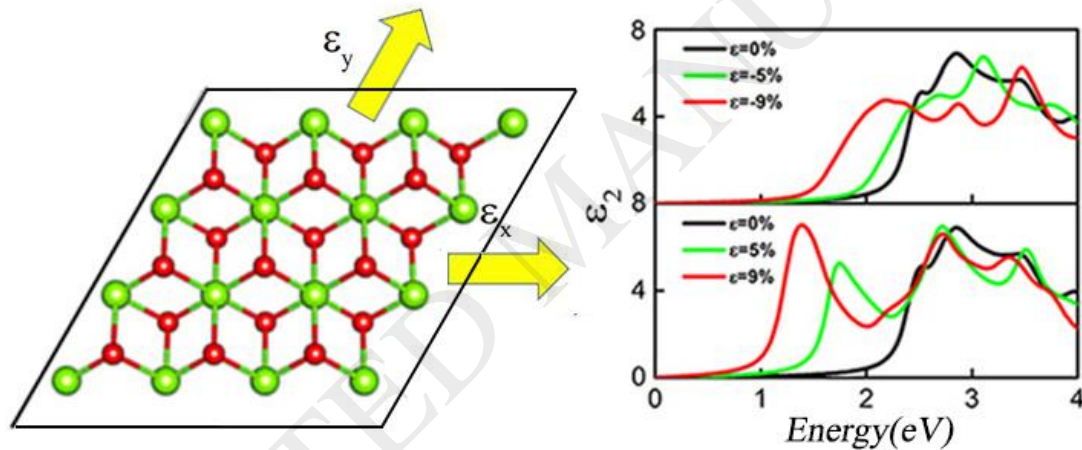
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Graphical Abstract



The in-plane stiffness of PtX₂ monolayer are smaller than that of MoX₂ monolayers. Moreover, the tensile strain can affect obviously the electronic structures and optical properties of PtX₂ monolayer.

Highlights

- The elastic, electronic and optical properties of new PtX₂(X=S, Se, Te) monolayer are studied.

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