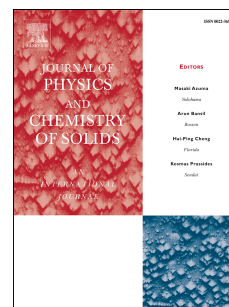


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Tuning electronic and magnetic properties of single-layer PN phases by point defects

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- Buckled and asymmetric washboard phases of PN (b-PN and aw-PN) are stable structures.
- The single layers are nonmagnetic and indirect band gap semiconductors.
- All the creation of point defects types rise a magnetization on the single layers.
- The aw-PN single layer with P atom vacancy becomes narrow band gap semiconductor.
- The b-PN single layer with P atom vacancy shows a indirect-direct band gap transition.

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