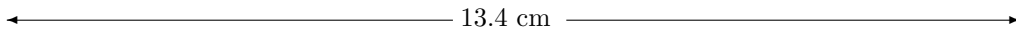


Magnetism in doped two-dimensional honeycomb structures of III-V binary compounds.

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Using first-principles plane-wave calculations systematic study of magnetic properties of doped two-dimensional honeycomb structures of III-V binary compounds have been conducted, either for magnetic or nonmagnetic dopants. Calculations show, that in some cases magnetic state is energetically more favorable. For such cases band structure, binding energies, partial density of states, mulliken charges, and electron density were calculated and analyzed in detail. The possible applications of these structures were also discussed.



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