ELECTRONIC STRUCTURE AND MAGNETIC PROPERTIES OF $Ni_2MnGa_{1-x}Ge_x$ AND $Ni_2Mn_{1-x}Sn_x$ HEUSLER ALLOYS

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The magnetic and electronic properties of Ni_2MnX (X=Ga,Ge,Sn,In) Heusler alloys were studied experimentally and theoretically, recently. In this work we present the influence of atomic disorder in one sublattice on the electronic and magnetic properties of $Ni_2MnGa_{1-x}Ge_x$ and $Ni_2Mn_{1-x}Sn_x$[1] Heusler alloys. Ab-intio band calculations were performed for the experimental lattice parameters. We have applied FPLO-CPA [2] and SPR KKR-CPA [3-5] methods in the local spen density approximation (LSDA).

9.7 cm

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13.4 cm

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