Contribution of s-d Interaction to the Internal Magnetic Field in Heusler Alloys

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Abstract

Spin echoes and their external magnetic field effects have been observed on Heusler alloys, Cu_2MnAl, Cu_2MnIn and Cu_2MnSn at 4.2°K. The sign of the internal magnetic field at nuclei of the constituent elements has been determined to be negative, and on the basis of the R-K-K-Y interaction semiquantitative agreement between calculated and observed internal magnetic fields has been obtained in Cu_2MnAl, Cu_2MnIn and Cu_2MnSn. The spectra for Cu, Mn and Sn in Cu_2MnSn, In in Cu_2MnIn and Al in Cu_2MnAl have been observed for the first time.

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