

2. Ni_2MnSn , Pd_2MnSn の光吸収スペクトル

高 倉 信 行

The optical absorption spectra $\epsilon_2(o, \omega)$ of Ni_2MnSn and Pd_2MnSn are evaluated on the basis of the realistic band structure obtained by the tight-binding orthogonalised plane wave (TB-OPW) method. The transitions between OPW in the hybridised states contribute dominantly to the main structure of the spectra, as was the case in Cu_2MnAl . The common properties in $\epsilon_2(o, \omega)$ of the ferromagnetic Heusler alloys X_2MnZ ($\text{X} = \text{Ni}, \text{Pd}, \text{Cu}$; $\text{Z} = \text{Al}, \text{Sn}$) are examined using the present results and those obtained previously for Cu_2MnAl . Three peaks below 4eV and a peak above 7eV beyond which $\epsilon_2(o, \omega)$ decreases rapidly are observed as the common structures of the three alloys. These structures are related to the d state of Mn in the three alloys.