

Abstract

Recently, Heusler alloys are studied for their interesting magnetic and electronic properties. These properties are strongly dependent on the crystallographic structure. This work deals with Heusler alloys of the A₂BC type. We have powder samples and single-crystalline samples for our study as well. An object of interest was a description of crystallographic structure of the samples, site occupation numbers of each type of atoms and their possible occupation disorder. Powder diffraction and EXAFS have been measured on the powder samples. Classical single-crystal diffractions has been measured on the single-crystalline samples. In the case of a modulated structure in the samples, satellite diffractions have been measured too.