

Abstract: This thesis deals with magnetic properties of the HoCo₂ compound, which is composed of rare earth and transition metal elements. The study is focused on properties at ambient pressure and changes of the magnetic behavior of the material under hydrostatic pressure. At the ambient pressure, there was performed analysis of the sample quality with a finding of presence of three magnetic transitions: flipping temperature magnetization of Co clusters $T_f = (125 \pm 1)$ K, Curie temperature $T_C = (79,5 \pm 0,1)$ K and spin-reorientation temperature $T_R = (16,4 \pm 0,5)$ K. When applying the hydrostatic pressure up to 3 GPa, there was observed a shift of the temperatures of the magnetic transitions and in the case T_f and T_R their consequent vanishing. From the shifts of the T_C and T_f towards lower temperatures and from the vanishing of the T_f , it was concluded that Co magnetism is being suppressed by the influence of the hydrostatic pressure.