

The content of this work is the measurement of thermal conductivity of materials within the MaMBA project. Single crystalline samples of LaNi_5 and PrNi_5 were successfully oriented along a and c axis each and disc-shaped polymer samples of PETG and PLA were 3D printed. Thermal conductivity was measured on these samples. The thermal conductivity electrical resistivity and Seebeck coefficient were measured on the intermetallic compounds in the temperature range 2-390K. A magnetoelastic interaction was observed in the PrNi_5 samples, contributing to the thermal conductivity. The magnetic character of the PrNi_5 compound also contributes to the resistivity at temperatures below 50K. This magnetic contribution was determined for both a and c axis. Finally, the temperature dependence of the thermal conductivity of PETG discs was measured in the temperature range 3-300K. The thermal conductivity of the PLA discs was measured at room temperature.