

Solid solutions of BaNiSn₃ type CeTX₃ (T and X denote a transition metal and Si/Ge, respectively) compounds were studied. Polycrystalline samples of solid solutions CeCo_xRh_{1-x}Si₃ ($x = 0.5$, $x = 0.8$, $x = 0.9$ and $x = 1.0$) and CeIr(Si_xGe_{1-x})₃ ($x = 0.1$, $x = 0.4$, $x = 0.6$ and $x = 0.8$) were successfully grown. A superconducting transition at 0.7–0.9 K was exhibited by all four compositions of the solution CeCo_xRh_{1-x}Si₃. Based on measurements of specific heat, we conclude that the superconductivity is probably caused by impurity phases. We have determined crystallographic, thermodynamic and magnetic properties of the solution CeIr(Si_xGe_{1-x})₃. Magnetic phase transition temperatures were established, the character of the transitions changed significantly in all four compositions, the temperatures themselves did not.