

Decades of scientific work dedicated to the investigation of phase diagrams gave significant benefit to industry and science. After all those years of phase diagram investigation still there is missing information about phase diagram of some ternary systems. One of those systems is Cu-Ge-Pb. It is known importance of Cu-based alloys and Ge-based alloys in electro industry. Since such combination is not tested before this work will provide information about phase diagram of ternary Cu-Ge-Pb system. In this work ternary Cu-Ge-Pb system has been tested experimentally and analytically by using Calphad model. Two isothermal sections at 600 and 400 °C and three vertical sections are experimentally tested and results were compared with calculated corresponding phase diagrams. None of the ternary compound and large solubility of third element in binary compound is not confirmed. Liquidus projection, invariant reaction and scheme of invariant reaction are presented. Scheil and Lever simulation of solid phases for $\text{Cu}_{80}\text{Ge}_{10}\text{Pb}_{10}$ alloy were calculated.