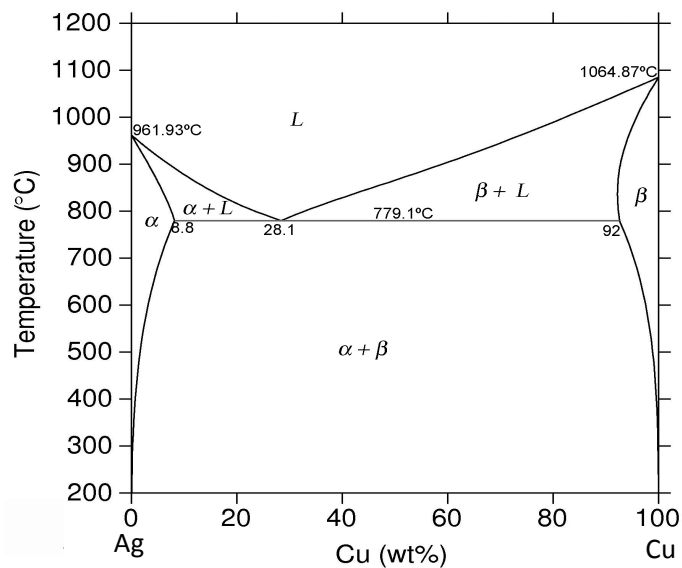




Exercises

- Using the Ag-Cu phase diagram given below calculate the amount, chemical composition and mass fractions of the phases and microconstituents present at $T_1 = 900^\circ\text{C}$, $T_2 = 780 + \Delta T$ °C, $T_3 = 780 - \Delta T$ °C, $T_4 = 500^\circ\text{C}$ for an alloy of composition:
 - 70%Cu
 - 28.1%Cu
 - 15%Cu



- Answer the following questions with respect to the Al-Ni phase diagram shown.

- Determine the invariant reactions that take place when cooling at the following temperatures, indicating the reaction's equation, the composition of each phase in the reaction and its name: 640°C, 700°C, 854°C, 1133°C.
- What intermetallic compounds that appear in the diagram? Explain whether they represent a congruent or incongruent fusion.
- Indicate the phases present, the mass fraction and composition of each phase, and the mass fraction of each microconstituent for an alloy that has a 21% of Ni at a temperature of 600°C.

