

# Phase Diagram

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## Key Term

Solubility limit — Maximum concentration of solute atoms that is dissolvable in the solvent. In liquid form, sugar water solution is an example. In the solid form carbon in iron is an example of solid solution solubility limit.

phase Equilibrium — It is a thermodynamic equilibrium as a result of minimum free energy state in the solid solution. At this energy state the phases in the solid are stable and does not change with time.

one phase component — When a single component stays in various phases with the variations in temperature & pressure. Example is → water stays in vapor, liquid and solid phase with the combinations of pressure and temperature.

## Binary phase system —

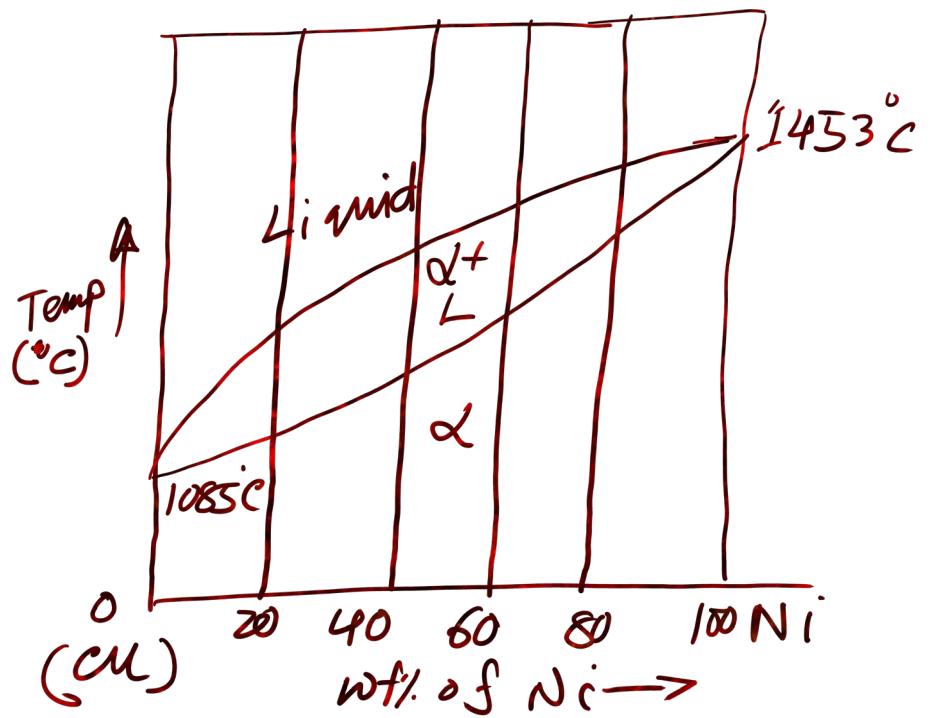


Fig:— The copper-Nickel  
phase diagram

