

**Advanced Thermodynamics**  
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**Free energy of solutions, free energy-composition diagrams**

**Questions:**

1. Can you name a phase transformation where the transformation temperature does not change with pressure?
2. Derive the expression for configurational entropy for a binary solution.
3. What would be the configurational entropy for an ordered alloy?
4. Configurational entropy is not affected by the nature of elements in the solutions, while the enthalpy mixing does. Comment on this statement.