

Precipitation reactions and gravimetric analysis

1. Precipitation equilibrium: solubility product, thermodynamic solubility product and conditional solubility product.
2. Why is the solubility of the compound increased due to the presence of electrolytes in the solution? How do we call this effect? Explain using the appropriate equations and dependencies.
3. Why the solubility of the compound decreases due to the presence of a common (with compound) ion in the solution? How do we call this effect? Explain using the appropriate equations and dependencies.
4. Common ion effect.
5. Diverse ion effect.
6. Briefly describe: Ostwald ripening.
7. Effect of acidity on solubility.
8. Effect of complexation on solubility.
9. The gravimetric determination of nickel- give reaction and appropriate conditions
10. Gravimetric determination of iron as Fe_2O_3 - give reaction and appropriate conditions.
11. Gravimetric factor – brief description.
12. Coprecipitation- give definition and brief description.
13. Give definition of the solubility product and write its concentration and thermodynamic form.