

LECTURE 27 TRANSITION METALS

I. Formation of Coordination Complexes

- A. Donor atoms: ligands
- B. Acceptor atoms
- C. Coordination complexes
- D. Coordination number
- E. Coordination complex notation

II. Structures of Coordination Complexes

- A. Chelate effect
 - 1. Vitamin B₁₂
 - 2. Ethylenediamine tetraacetic acid (EDTA)
- B. Geometric isomers
- C. Optical isomers (enantiomers)

III. d-Electron Counting in Coordination Complexes

IV. d Orbitals