

## NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

NPTEL Video Course - Chemistry and Biochemistry - Co-ordination chemistry (chemistry of transition elements)

Subject Co-ordinator - Prof. D. Ray

Co-ordinating Institute - IIT - Kharagpur

Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

Lecture 1 - Introduction  
Lecture 2 - Definition  
Lecture 3 - Classification of Ligands - I  
Lecture 4 - Classification of Ligands - II  
Lecture 5 - Ligands - III and Nomenclature - I  
Lecture 6 - Nomenclature - II  
Lecture 7 - Coordination Number - I  
Lecture 8 - Coordination Number - II  
Lecture 9 - Coordination Number - III  
Lecture 10 - Coordination Number - IV  
Lecture 11 - Isomerism - I  
Lecture 12 - Isomerism - II  
Lecture 13 - Coordination Equilibria - I  
Lecture 14 - Coordination Equilibria - II  
Lecture 15 - Bonding in Complexes - I  
Lecture 16 - Bonding in Complexes - II  
Lecture 17 - Bonding in Complexes - III  
Lecture 18 - Bonding in Complexes - IV  
Lecture 19 - Jahn-Teller Effect  
Lecture 20 - Spin Crossover and Colour  
Lecture 21 - Optical Spectra  
Lecture 22 - d-d Transitions  
Lecture 23 - Charge Transfer  
Lecture 24 - Orgel Diagram  
Lecture 25 - Tanabe Sugano Diagram  
Lecture 26 - MLCT Transitions  
Lecture 27 - Application of CFT  
Lecture 28 - Spinels  
Lecture 29 - Magnetochemistry

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- Lecture 30 - Magnetic Properties
- Lecture 31 - Magnetic Measurements
- Lecture 32 - Ligand Field Theory
- Lecture 33 - Sigma Orbitals
- Lecture 34 - Pi Orbitals
- Lecture 35 - Reaction Mechanism - I
- Lecture 36 - Reaction Mechanism - II
- Lecture 37 - Reaction Mechanism - III
- Lecture 38 - Reaction Mechanism - IV
- Lecture 39 - Reaction Mechanism - V
- Lecture 40 - Biological Inorganic Chemistry