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

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NPTEL Video Course - Metallurgy and Material Science - NOC: Structural Analysis of Nanomaterials
Subject Co-ordinator - Prof. Kaushik Pal
Co-ordinating Institute - IIT - Roorkee
Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable
Lecture 1 - Introduction
Lecture 2 - Structure of Materials
Lecture 3 - Imperfections in Structure of Materials
Lecture 4 - Phase Diagram
Lecture 5 - Transformation of Phases
Lecture 6 - Basic Properties
Lecture 7 - Basic Properties
Lecture 8 - Basic Properties
Lecture 9 - Basic Properties
Lecture 10 - Selection of Nanomaterials based on Applications
Lecture 11 - Introduction to X-Ray Diffraction
Lecture 12 - Diffraction Methods and Directions of XRD
Lecture 13 - Determination of Crystal Structures by XRD Patterns
Lecture 14 - Precise Parameter Measurements
Lecture 15 - Orientation of Single Crystals
Lecture 16 - Qualitative Analysis by Diffraction
Lecture 17 - Quantitative Analysis by Diffraction
Lecture 18 - Microscopic Structural Analysis of Nanomaterials - I
Lecture 19 - Microscopic Structural Analysis of Nanomaterials - II
Lecture 20 - Other Characterization Techniques
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