NPTEL Video Course - Chemistry and Biochemistry - NOC:Symmetry and Structure in the Solid State

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Co-ordinating Institute - IISc - Bangalore

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

Lecture 30 - Crystallographic Directions and Planes
Lecture 31 - Interference of Waves
Lecture 32 - X Ray Scattering ; optical Analogy
Lecture 33 - X Ray Scattering ; Fourier transforms
Lecture 34 - X Ray Scattering ; Deriving Laue Conditions from scattering theory
Lecture 35 - X Ray Scattering ; Laue conditions to Bragg Ã¢â ¬Ë s Law, Introduction to Reciprocal lattice
Lecture 36 - Bragg's Law in Reciprocal Space - 1
Lecture 37 - Bragg's Law in Reciprocal Space - 2
Lecture 38 - Calculation of Intensities - 1
Lecture 39 - Calculation of Intensities - 2
Lecture 40 - Conversion from Direct to reciprocal space, the inverse relations
Lecture 41 - Diffraction and Reciprocal Space (Continued...)
Lecture 42 - Limits of Resolution
Lecture 43 - Concept of Structure Factors
Lecture 44 - Systematic Absences - 1
Lecture 45 - Systematic Absences - 2
Lecture 46 - Systematic Absences - 3
Lecture 47 - Friedel's Law and Laue classes
Lecture 48 - Experimental Aspects of Data Collection
Lecture 49 - Structure Determination - 1
Lecture 50 - Structure Determination - 2
Lecture 51 - Data Reduction
Lecture 52 - Fourier Syntheses
Lecture 53 - Patterson Method - 1
Lecture 54 - Patterson Method - 2
Lecture 55 - Direct Method
Lecture 56 - Powder Diffraction - 1
Lecture 57 - Powder Diffraction - 2
Lecture 58 - Powder Diffraction - 3
Lecture 59 - Quantum Crystallography - 1
Lecture 60 - Quantum Crystallography - 2
Lecture 61 - Intermolecular Interactions