NPTEL Video Course - Metallurgy and Material Science - Materials Characterization

Subject Co-ordinator - Dr. S. Sankaran

Co-ordinating Institute - IIT - Madras

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

Lecture 29 - Effect of crystallite size and strain on intensity of X-rays
Lecture 30 - Profile fit, Factors affecting peak brodening
Lecture 31 - Indexing of diffraction pattern, Quantitative analysis
Lecture 32 - Indexing, Quantitative analysis-continuation, Residual stress measurements
Lecture 33 - XRD and Residual stress measurement- lab demonstration
Lecture 34 - Introduction to Transmission Electron Microscopy (TEM)
Lecture 35 - Fundementals of Transmission Electron Microscopy (TEM)
Lecture 36 - Basics of Diffraction-1
Lecture 37 - Basics of Diffraction-2
Lecture 38 - TEM imaging-1
Lecture 39 - TEM imaging-2
Lecture 40 - TEM instrument demonstration
Lecture 41 - TEM sample preparation-1
Lecture 42 - TEM sample preparation-2
Lecture 43 - XRD Tutorial - 1
Lecture 44 - XRD tutorial - 2
Lecture 45 - TEM Tutorial - 1
Lecture 46 - TEM Tutorial - 2
Lecture 47 - Quantitative metallography - Tutorial 1
Lecture 48 - Quantitative metallography - Tutorial 2
Lecture 49 - Quantitative metallography - Tutorial 3
Lecture 50 - Quantitative metallography - Tutorial 4
Lecture 51 - Quantitative metallography - Tutorial 5
Lecture 52 - Quantitative metallography - Tutorial 6
Lecture 53 - Quantitative metallography - Tutorial 7