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

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NPTEL Video Course - Chemistry and Biochemistry - Chemistry of Materials
Subject Co-ordinator - Prof. S. Sundar Manoharan
Co-ordinating Institute - IIT - Kanpur
Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable
Lecture 1 - Introduction to Materials Chemistry
Lecture 2 - Preparative routes
Lecture 3 - Preparative routes
Lecture 4 - Preparative routes
Lecture 5 - Preparative routes
Lecture 6 - Preparative routes
Lecture 7 - Preparative routes
Lecture 8 - Preparative routes
Lecture 9 - Preparative routes
Lecture 10 - Molecular Beam Epitaxy
Lecture 11 - Pulsed Laser Deposition
Lecture 12 - Pulsed Electron Deposition
Lecture 13 - Sputtering deposited thin films and applications
Lecture 14 - Crystal growth-Single crystals.
Lecture 15 - Applications of X-ray diffraction
Lecture 16 - Applications of X-ray Photoelectron spectroscopy
Lecture 17 - Applications of X-ray Absorption spectroscopy
Lecture 18 - Applications of Thermal analysis techniques
Lecture 19 - Applications of Scanning Tunneling microscopy
Lecture 20 - Applications of Electron Microscopy
Lecture 21 - Case Study of ZnO
Lecture 22 - Magnetic materials - I
Lecture 23 - Magnetic Materials - II
Lecture 24 - Magnetic Materials - III & Related Phenomena
Lecture 25 - Shape Memory Materials
Lecture 26 - Spintronic Materials - I Colossal Magentoresistive Oxides
Lecture 27 - Spintronic Materials - II Giant Magnetoresistive Materials
Lecture 28 - Spintronic Materials - III Tunelling Magnetoresistive Materials
Lecture 29 - Spintronic Materials - IV Dilute Magnetic Semicondcutors
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Lecture 30 - High Tc Superconductors

Lecture 31 - The New Carbon family - I - Fullerenes and Nanotubes

Lecture 32 - The New Carbon family - II - Graphene

Lecture 33 - Optoelectronic Materials - I - OLEDS

Lecture 34 - Optoelectronic Materials - II - OLEDS

Lecture 35 - Inorganic Phosphors - I

Lecture 36 - Inorganic Phosphors - II

Lecture 37 - Phosphor Materials

Lecture 38 - Solar Cells

Lecture 39 - Interview with C N R Rao and Interview with E C Subba Rao

Lecture 40 - Perceptions & Projections
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