

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

NPTEL Video Course - Nanotechnology - Nano structured materials-synthesis, properties, self assembly and appl

Subject Co-ordinator - Prof. A.K. Ganguli

Co-ordinating Institute - IIT - Delhi

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

- Lecture 1 - Introduction to Nanotechnology
- Lecture 2 - Introduction to Nanotechnology (Continued...)
- Lecture 3 - Synthetic Methodologies
- Lecture 4 - Synthetic Methodologies (Continued...)
- Lecture 5 - Synthetic Methodologies (Continued...)
- Lecture 6 - Synthetic Methodologies (Continued...)
- Lecture 7 - Synthetic Methodologies (Continued...)
- Lecture 8 - Synthetic Methodologies (Continued...)
- Lecture 9 - Template Methods - I
- Lecture 10 - Template Methods - II
- Lecture 11 - Spray Pyrolysis
- Lecture 12 - V-L-S Method
- Lecture 13 - Lithography - I
- Lecture 14 - Lithography - II
- Lecture 15 - Fullerenes and Carbon Nanotubes - I
- Lecture 16 - Fullerenes and Carbon Nanotubes - II
- Lecture 17 - Fullerenes and Carbon Nanotubes - III
- Lecture 18 - Metal and Metal Oxide Nanowires - I
- Lecture 19 - Metal and Metal Oxide Nanowires - II
- Lecture 20 - Metal and Metal Oxide Nanowires - III
- Lecture 21 - Self Assembly of Nanostructures - I
- Lecture 22 - Self Assembly of Nanostructures - II
- Lecture 23 - Self Assembly of Nanostructures - III
- Lecture 24 - Core Shell Nanostructures - I
- Lecture 25 - Core Shell Nanostructures - II
- Lecture 26 - Core Shell Nanostructures - III
- Lecture 27 - Nanocomposites - I
- Lecture 28 - Nanocomposites - II
- Lecture 29 - Photocatalysis - I

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- Lecture 30 - Photocatalysis - II
- Lecture 31 - Photocatalysis - III
- Lecture 32 - Dielectric Properties - I
- Lecture 33 - Dielectric Properties - II
- Lecture 34 - Magnetic Properties - I
- Lecture 35 - Magnetic Properties - II
- Lecture 36 - Magnetic Properties - III
- Lecture 37 - Optical Properties - I
- Lecture 38 - Optical Properties - II
- Lecture 39 - Mechanical Properties
- Lecture 40 - Concluding Lecture

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

NPTEL Video Course - Nanotechnology - Nanostructures and Nanomaterials: Characterization and Properties

Subject Co-ordinator - Dr. Anandh Subramaniam, Dr. Kantesh Balani

Co-ordinating Institute - IIT - Kanpur

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

Lecture 1 - Introduction to Nanomaterials  
Lecture 2 - Introduction to Nanomaterials  
Lecture 3 - Introduction to Nanomaterials  
Lecture 4 - Introduction to Nanomaterials  
Lecture 5 - Introduction to Nanomaterials  
Lecture 6 - Introduction to Nanomaterials  
Lecture 7 - Introduction to Nanomaterials  
Lecture 8 - Introduction to Nanomaterials  
Lecture 9 - Introduction to Nanomaterials  
Lecture 10 - Introduction to Nanomaterials  
Lecture 11 - Surface Effects and Physical properties of nanomaterials  
Lecture 12 - Surface Effects and Physical properties of nanomaterials  
Lecture 13 - Surface Effects and Physical properties of nanomaterials  
Lecture 14 - Surface Effects and Physical properties of nanomaterials  
Lecture 15 - Surface Effects and Physical properties of nanomaterials  
Lecture 16 - Defect Structure & Mechanical Behaviour of Nanomaterials  
Lecture 17 - Defect Structure & Mechanical Behaviour of Nanomaterials  
Lecture 18 - Defect Structure & Mechanical Behaviour of Nanomaterials  
Lecture 19 - Defect Structure & Mechanical Behaviour of Nanomaterials  
Lecture 20 - Defect Structure & Mechanical Behaviour of Nanomaterials  
Lecture 21 - Electrical, Magnetic and Optical Properties of Nanomaterials  
Lecture 22 - Electrical, Magnetic and Optical Properties of Nanomaterials  
Lecture 23 - Electrical, Magnetic and Optical Properties of Nanomaterials  
Lecture 24 - Electrical, Magnetic and Optical Properties of Nanomaterials  
Lecture 25 - Electrical, Magnetic and Optical Properties of Nanomaterials  
Lecture 26 - Atomic Bonding  
Lecture 27 - Overview of Nano structures and Nano materials  
Lecture 28 - Carbon Nanostructures  
Lecture 29 - Multi-Scale Hierarchy

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- Lecture 30 - Self Assembly
- Lecture 31 - Nanomaterials in Nature
- Lecture 32 - Surfaces and Interfaces
- Lecture 33 - Non-wetting
- Lecture 34 - Nanomaterials Science and Nanomanufacturing
- Lecture 35 - Surface Adsorption Isotherms (Langmuir/Bet)
- Lecture 36 - Reciprocal Lattice
- Lecture 37 - Transmission Electron Microscopy
- Lecture 38 - Transmission Electron Microscopy
- Lecture 39 - Auger Electron Spectroscopy
- Lecture 40 - X-Ray Photoelectron Spectroscopy (XPS)
- Lecture 41 - Electron Energy Loss Spectroscopy (EELS)
- Lecture 42 - Deformation Behavior of Nanomaterials
- Lecture 43 - Fracture and Creep
- Lecture 44 - Nanomechanics
- Lecture 45 - Nanotribology