

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

NPTEL Video Course - Chemical Engineering - NOC:Introduction to Polymer Physics (IIT-G)

Subject Co-ordinator - Prof. Amit Kumar

Co-ordinating Institute - IIT - Guwahati

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

- Lecture 1 - Introduction to Polymers
- Lecture 2 - Ideal Chain Models
- Lecture 3 - Ideal and Real Chains
- Lecture 4 - Thermodynamics of Polymer Solutions - I
- Lecture 5 - Thermodynamics of Polymer Solutions - II
- Lecture 6 - Thermodynamics of Polymer Solutions - III
- Lecture 7 - Phase Behaviour of Polymer Solutions and Blends
- Lecture 8 - Phase Behaviour of Polymer Blends and Copolymers
- Lecture 9 - Determination of Polymer Molar Mass
- Lecture 10 - Determination of Polymer Molar Mass
- Lecture 11 - Determination of Polymer Molar Mass
- Lecture 12 - Determination of Polymer Molar Mass
- Lecture 13 - Branching
- Lecture 14 - Branching, Network Formation and Gelation
- Lecture 15 - Gelation and Swelling of Network Polymers
- Lecture 16 - Amorphous State of Polymers
- Lecture 17 - Crystalline State of Polymers
- Lecture 18 - Mechanical Properties of Polymers
- Lecture 19 - Viscoelasticity
- Lecture 20 - Viscoelasticity, Dynamic Mechanical Analysis and Rheology
- Lecture 21 - Rubber Elasticity
- Lecture 22 - Unentangled Polymer Dynamics
- Lecture 23 - Entangled Polymer Dynamics
- Lecture 24 - Review

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