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

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NPTEL Video Course - Chemical Engineering - NOC: Polymer Reaction Engineering
Subject Co-ordinator - Prof. Shishir Sinha
Co-ordinating Institute - IIT - Roorkee
Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable
Lecture 1 - Introduction to Polymerization Process - I
Lecture 2 - Introduction to polymerization process - II
Lecture 3 - A Short History of polymerization process, monomers and its distribution
Lecture 4 - Gradient and graft copolymer, polymer and its compositions, isomerism in polymers - I
Lecture 5 - Gradient and graft copolymer, polymer and its compositions, isomerism in polymers - II
Lecture 6 - Bonding forces in polymers
Lecture 7 - Molecular weight and its distribution
Lecture 8 - Control on Polymer Synthesis - I
Lecture 9 - Control on Polymer Synthesis - II
Lecture 10 - Control on Polymer Synthesis - III
Lecture 11 - Morphology of polymers
Lecture 12 - Introduction to reactor design - I
Lecture 13 - Introduction to reactor design - II
Lecture 14 - Temperature dependent term and Interpretation of batch reactor data - I
Lecture 15 - Temperature dependent term and Interpretation of batch reactor data - II
Lecture 16 - Interpretation of batch reactor data - III
Lecture 17 - Interpretation of batch reactor data - IV
Lecture 18 - Design equation for ideal reactors
Lecture 19 - Design Equation for Single Reaction System
Lecture 20 - Multiple reactor system
Lecture 21 - Recycle reactor and autocatalytic reaction
Lecture 22 - Multiple reactions system - I
Lecture 23 - Multiple reactions system - II
Lecture 24 - Multiple reactions system - III
Lecture 25 - Problem Solving - I
Lecture 26 - Problem Solving - II
Lecture 27 - Problem Solving - III
Lecture 28 - Step-growth polymerization - I
Lecture 29 - Step Growth Polymerization - II
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Lecture 30 - Step Growth Polymerization - III
Lecture 31 - Step Growth Polymerization - IV
Lecture 32 - Radical Chain Polymerization Introduction
Lecture 33 - Radical Chain Polymerization Comparison with Ionic Chain Polymerization
Lecture 34 - Radical Chain Polymerization Mode of Propagation
Lecture 35 - Radical Chain Polymerization Rate of Polymerization
Lecture 36 - Radical Chain Polymerization Rate Expression
Lecture 37 - Radical Chain Polymerization Process Analysis - I
Lecture 38 - Radical Chain Polymerization Process Analysis - II
Lecture 39 - Radical Chain Polymerization Half-life, Propagation and Termination - I
Lecture 40 - Radical Chain Polymerization Half-life, Propagation and Termination - II
Lecture 41 - Radical Chain Polymerization Redox Initiation
Lecture 42 - Radical Chain Polymerization Photochemical and Ionization Initiation
Lecture 43 - Radical Chain Polymerization Other Initiation Techniques - I
Lecture 44 - Radical Chain Polymerization Other Initiation Techniques - II
Lecture 45 - Heterogeneous Polymerization Introduction - I
Lecture 46 - Heterogeneous Polymerization Introduction - II
Lecture 47 - Population Balance Modeling Other Techniques - I
Lecture 48 - Population Balance Modeling Other Techniques - II
Lecture 49 - Emulsion Polymerization Batch Polymerization
Lecture 50 - Emulsion Polymerization Semi-continuous polymerization
Lecture 51 - Emulsion Polymerization Nucleation, Morphology and Reactor Types - I
Lecture 52 - Emulsion Polymerization Nucleation, Morphology and Reactor Types - II
Lecture 53 - Emulsion Polymerization PSD and Implementation of the Process - I
Lecture 54 - Emulsion Polymerization PSD and Implementation of the Process - II
Lecture 55 - Living and dormant Polymerization
Lecture 56 - Ionic Polymerization - I
Lecture 57 - Ionic Polymerization - II
Lecture 58 - Ionic Polymerization - III
Lecture 59 - Ionic Polymerization - IV
Lecture 60 - Ionic Polymerization - V
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