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

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NPTEL Video Course - Biotechnology - NOC: Plant Cell Bioprocessing
Subject Co-ordinator - Prof. Smita Srivastava
Co-ordinating Institute - IIT - Madras
Sub-Titles - Available / Unavailable
                                         MP3 Audio Lectures - Available / Unavailable
Lecture 1 - Introduction to plant cell technology
Lecture 2 - History of plant cell and tissue culture
Lecture 3 - Anatomy of plant cells
Lecture 4 - Plant tissues and functions
Lecture 5 - Photosynthesis and Photorespiration
Lecture 6 - In-vitro culture initiation
Lecture 7 - Nutritional requirements of plant cells
Lecture 8 - Organogenesis and Regeneration
Lecture 9 - Somaclonal variation and Micropropagation
Lecture 10 - Somatic embryogenesis and Protoplast culture
Lecture 11 - Synthetic seeds, Cryopreservation and Freezing methods
Lecture 12 - Secondary metabolism in plant cells - Part 1
Lecture 13 - Secondary metabolism in plant cells - Part 2
Lecture 14 - Secondary metabolism in plant cells - Part 3
Lecture 15 - Secondary metabolism in plant cells - Part 4
Lecture 16 - Optimization strategies - Part 1
Lecture 17 - Optimization strategies - Part 2
Lecture 18 - Optimization strategies - Part 3
Lecture 19 - Optimization strategies - Part 4
Lecture 20 - Biotransformation in plant cultures
Lecture 21 - Immobilization of plant cells
Lecture 22 - Genetic transformations in plant cells - Part 1
Lecture 23 - Genetic transformations in plant cells - Part 2
Lecture 24 - Genetic transformations in plant cells - Part 3
Lecture 25 - Plant Cell Bioreactors - Part 1
Lecture 26 - Plant Cell Bioreactors - Part 2
Lecture 27 - Bioreactors for Hairy Root cultures
Lecture 28 - Case study - Part 1
Lecture 29 - Case study - Part 2
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