

Webinar Series: Waste Derived Nanomaterials Part-II

BIO2NANO: BioResources to Sustainable Nanoproducts- Interventions, Current Status & the Future Perspective



उच्च पौष्टिकी विभाग
Department of Biotechnology
Ministry of Science & Technology
Government of India



20th October, 2021

Time: 14.00- 16:00 IST (GMT +05:30)

KEY FEATURES

- » Harnessing Agricultural & Algal System for Circular Bioeconomy
- » From lab to audience: Models that demonstrate the advancement of research and development in the area of lignocellulosics and algae based nanoproducts.
- » Burgeoning potential of 'agro-residues' in sustainable development of advanced bio-based nanoproducts: Challenges & Opportunities
- » E-certificates
- » Networking
- » Algal based sustainable bioeconomy model

Speakers



Dr. Reshmy R.

Department of Chemistry,
Bishop Moore College,
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Dr. Sudesh Kumar Yadav

Center of Innovative and
Applied Bioprocessing (CIAB),
Mohali, Punjab, India



Dr. Akhilesh Kumar Singh

Department of Biotech, School
of Life Sciences, Mahatma
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Dr. Vandana Vinayak

Diatom Nano-engineering and
Metabolism Laboratory (DNM), School
of Applied Sciences, Dr. Harisingh
Gour Vishwavidyalaya, Sagar, Madhya
Pradesh, India

Chair



Dr. Vibha Dhawan
Director General, TERI

Coordinator



Dr. Pushplata Singh, Acting Director,
TERI Deakin Nanobiotechnology Centre

Co-Cordinator



Dr. Ruchi Agrawal
Associate Fellow, TERI



Dr. Amritpreet Kaur Minhas,
Associate Fellow, TERI

BACKGROUND CONCEPT

Nanotechnology continues to have a broad impact on nearly all sectors of the global economy from electronics, energy, to medicine, health and agriculture. In recent years, sufficient growth has been achieved in the area of nanotechnology, although the development of economic and environmentally benign processes for the scale-up production of nanomaterials and nanoproducts is one of the biggest challenges. The use of low cost and alternative renewable precursors like lignocellulosic biomass, algae and their residues for the production of bio(nano)products is the way forward owing to their flexibility, the ease and the variety of procedures through which the biosynthesis of valuable nanoproducts is implemented. The unique nanoscale properties of renewable biomass present valuable opportunities in the field of nanoscience and technology. Despite various advances in the field of bio-derived nanoproducts, the innovative greener synthesis of bio(nano)products are needed towards development of an economical and sustainable society. Although still burgeoning, the nano based products from renewable natural resources may thrive and see dramatic developments in the near future. This webinar series will highlight the various leads being taken to derive nano-materials from agricultural waste and algal resources via a 'Circular Economy' model, which is based upon the principle of 'process', 'recycle' and 'reduce waste'.

Organizer: TERI-Deakin Nanobiotechnology Centre

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