

Detailed report of workshop

Title: Workshop on Nanomaterials Synthesis, Characterization, and Applications using Electrochemical Methods

Date & venue: 26.07.2024 , Smart Class room-II

The workshop aimed to provide a comprehensive overview of the synthesis, characterization, and applications of nanomaterials using electrochemical methods. The event brought together experts and researchers in the field to share their knowledge and expertise.

Objectives:

- To understand the principles of electrochemical methods for nanomaterials synthesis
- To learn about various characterization techniques for nanomaterials
- To explore the applications of electrochemically synthesized nanomaterials

Workshop Overview:

The session covered topics such as:

- Electrochemical synthesis of nanomaterials using various electrodes.
- Electrochemical synthesis of metal organic frame work.
- Characterization techniques: IR, Mass, TEM, SEM, XRD, Cyclic voltammetry and electrochemical methods
- Applications: energy storage, sensing, catalysis, and biomedical applications

Key Takeaways:

- Electrochemical methods offer a versatile and cost-effective approach for nanomaterials synthesis
- Advanced characterization techniques are essential for understanding nanomaterials' properties and behaviour
- Nanomaterials have vast potential in various fields, including energy, healthcare, and environmental remediation

Conclusion:

The workshop provided a valuable platform for knowledge sharing and networking among researchers and experts in the field of nanomaterials. The participants gained a deeper understanding of electrochemical methods for nanomaterials synthesis, characterization, and applications.

Recommendations:

- Future workshops should focus on specific applications of nanomaterials
- Hands-on training sessions should be increased to provide more practical experience
- Collaboration among researchers and industries should be encouraged to translate research into real-world applications.