

Report

Hands-on-Workshop on the Introduction and Applications of UV-Visible Absorption Spectroscopy

Organized by

***Department of Chemistry, DDUC
(Under the aegis of DBT Star College Scheme)
February 20, 2018***

Programme Schedule

A Hands-on-Workshop on the Introduction and Applications of UV-Visible Absorption Spectroscopy was organized by the Department of Chemistry, Deen Dayal Upadhyaya College (University of Delhi) under the aegis of DBT Star College Scheme on February 20, 2018. It constituted of a key note lecture on the topic “UV-Visible Absorption Spectroscopy” by Dr. Vinod Kumar, guest speaker and resource person for the day. The lecture was followed by a Hands-on-session in which students from various science courses of the college participated.

Introduction of the Speaker

Dr. Vinod Kumar is an Assistant Professor of Chemistry at Kirori Mal College, University of Delhi. He obtained his PhD from Department of Chemistry, University of Delhi in the field of oxide semiconductors. He has published many research papers in various national and international journals. He has also organized various scientific lectures and national conferences. He has been awarded with research grants by UGC and SERB amounting to approximately Rs. 38 lakhs. He is also a member of various scientific societies such as the Society of Material Chemistry, Bhabha Atomic research Center, Indian Society of Analytical Scientists, Indian Oil (Faridabad) and a member of Vijana Bharti (VIBHA). Currently, his research focuses on the synthesis, structure and properties of binary/mixed metal oxides and fluorides and their applications such as water splitting, optical properties, dyes degradation etc.



Summary of the Event

The event started with the felicitation of guest speaker and resource person Dr. Vinod Kumar by Dr. S. K. Garg, Principal, Deen Dayal Upadhyaya College. It was followed by a brief introduction of DBT Star College Scheme by Dr. S. K. Garg, Principal. After that, Dr. Vinod enlightened the audience with the keynote lecture on UV-Visible Spectroscopy. Lecture was attended by a total number of 85 students and 13 faculty members of the college. The main key points of the lecture were:-

1. Different spectroscopic techniques
2. Electromagnetic spectrum
3. Absorption spectroscopy- its principle and working
4. Instrumentation and Applications of UV-Visible absorption spectroscopy

The lecture was concluded with a demonstration by Dr. Vinod Kumar using a portable VISIBLE spectrophotometer. He conducted an analysis using solutions of different concentrations of potassium permanganate and showed their respective spectra's.





After the lecture, the Hands-on-Workshop was conducted in the chemistry research lab of the Department in which a total of 32 students participated. It was conducted in batches of five students each. Resource persons Dr. Jyoti, Dr. Nityanand Agasti, Dr. Reema Chhabra and Dr. Chetna Angrish conducted this workshop. The participants acquired the skills of using a Spectrophotometer and understood its principle and its working. The experiment was conducted by all the students with the help of different samples and the data was recorded by the experimentalists. The workshop was concluded with a valedictory ceremony.



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