

3rd International Workshop on Ion Beam Applications & Defects in Nanomaterials

05-07 August 2019 Organized by National Centre for Physics, Islamabad In collaboration with Northwestern Polytechnical University, China

Introduction

A three-day **"International workshop on Ion Beam Application and defects in nanomaterials"** is being organized at the National Centre for Physics (NCP) Islamabad on 5-7 August 2019. The workshop is planned around the Pelletron Tandem Accelerator facility installed in NCP, which offers research opportunity in vast scientific areas, such as material science; Gemstone industry; environment and biological sciences; nano-technology etc. National and international user workshop have been successfully organized in past.

International and national experts on Ion Beam Applications will delivered series of lectures and hands-on-training to raise awareness among young scientists, researchers and engineers, both from academia and industry to make it possible for them to interact with international experts in the field of ion beams. In-addition, this platform will also enhance the ability and expertise of respective users starting from data acquisition and its refinement along with operational hardware namely Ion sources (SNICS & (Alphatross); Operation and Control of Tandem Accelerator; Ion Beam Analysis (IBA); Theory & Data Acquisition; IBA Data Analysis using XRUMP & SIMNRA. Moreover, this workshop will also enhance the ability and expertise of the attendees in using ion beams to address their specific scientific problems. Following topics will be addressed in the workshop. **Topics**

- > Ion beam techniques for materials analysis
- > Ion beam induced defects in nanostructure materials and thin films
- Industrial application of Ion beam accelerator (namely pharmaceutical, biological, food, agricultural and mining industries)
- > Detection and monitoring of trace elements in sample matrix (PIXE)
- > Analysis of light elements at the verge of detection limit (PIGE)
- Ion beam modification and analysis of nanomaterials and thin films for various technological applications
- > Charged particle activation (CPA) and nuclear reaction study

Participation

Research students, post-doctoral researchers, faculty members, scientists and engineers are encouraged to apply for participation. The travel expenses of the participants shall be borne by the parent institutes. Partial travel assistance may be provided to selected outstation student participants on merit basis.

Registration Fee

Local Students: Pak Rs. 1500/-Outstation Students: Pak Rs. 2000/-Employees: Pak Rs. 3000/-

How to apply

Application Form can be accessed at: http://ncp.edu.pk/wibadn-2019.php

For further Information, Please Contact: caad@ncp.edu.pk

Collaborations & Academic Activities Department (CAAD) Tel: 051-9006216, 051-2077363, Fax: 051-2077342

Directors

Ishaq Ahmad (Pakistan) Tingkai Zhao (China)

Foreign Speakers

Maaza Malik (South Africa) Tingkai Zhao (China) Mlungisi Nkosi (South Africa) Liangdeng Yu (Thailand) Mahmoud Izerrouken (Algeria) Karen Cloete (South Africa) Morgan Madhuku (South Africa) Christopher Mtshali (South Africa) Fabian I. Ezema (Nigeria) Samson O. Aisida (Nigeria)

Local Speakers

Muhammad Usman Javaid Hussain Turab Ali

Technical Committee

Muhammad Usman Turab Ali Ali Awais

Management and Organizing Committee Rizwan Ali Khan Abdul Hamid

Technical Coordinator

Javaid Hussain Email: javaid007@yahoo.com

> APPLICATION DEADLINE

5 May 2019 For Foreign Participant 20 June 2019 For Local Participant