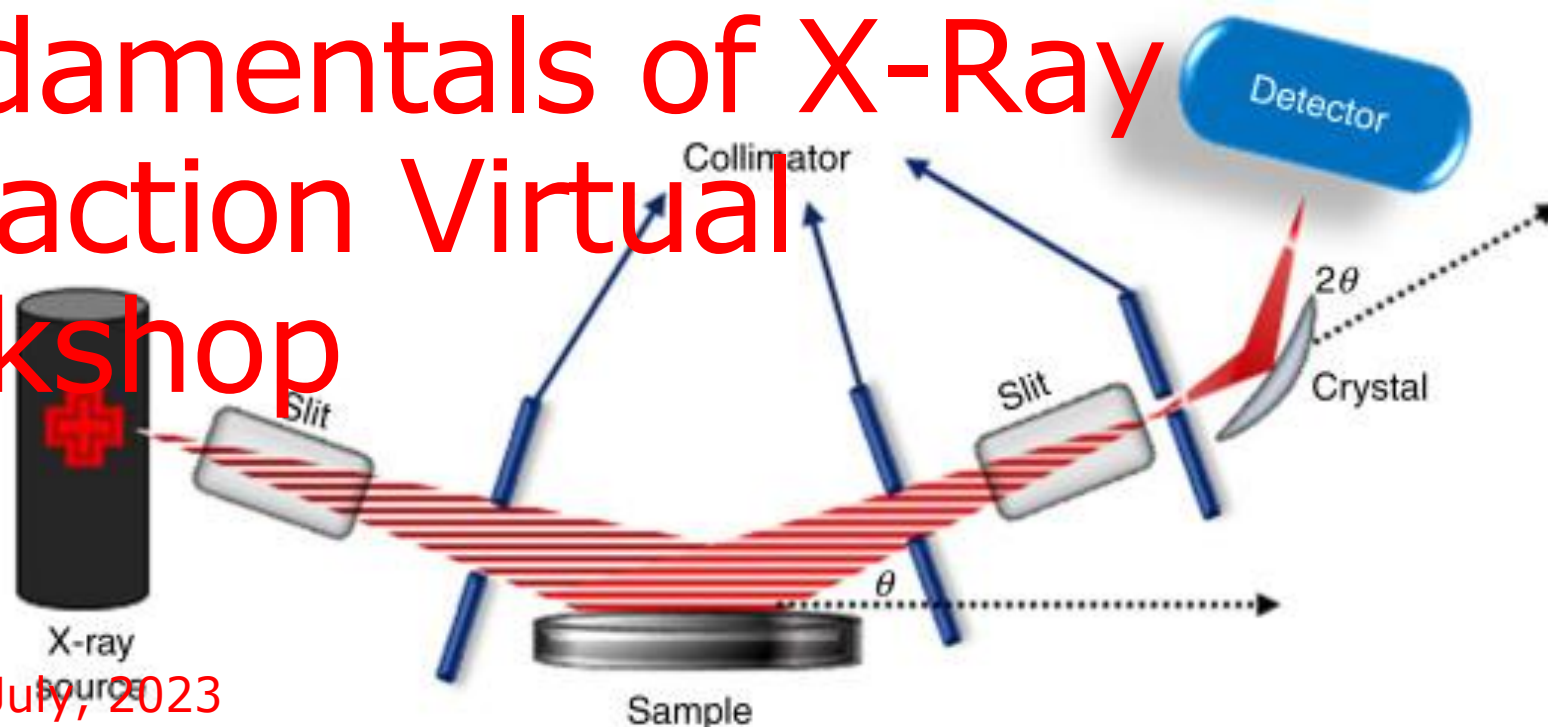


Fundamentals of X-Ray Diffraction Virtual Workshop



18th – 20th July, 2023

Materials Research Society of Kenya

Nairobi, Kenya

The Materials Research Society of Kenya is promoting crystallography in Kenya by offering a series of virtual X-Ray Diffraction workshops. This first workshop aims at training participants on the basics of XRD as a useful tool for characterization of materials.

Description:

The use of X-ray analytical methods has seen continued growth in the areas of materials characterization and phase identification. Over the years, the development of procedures, techniques, and advanced equipment have greatly enhanced the versatility of the method.

The purpose of this XRD workshop is to provide participants with a fundamental understanding of the theoretical basis as well as the practical application and implementation of diffractometry in today's laboratory. This knowledge and understanding is applicable whether the attendee works in academia, industry, or government laboratory, or whether they are a student, professor, researcher, or analyst.

Fundamentals of X-ray Powder Diffraction is directed to both relative newcomers in the field and to more experienced users wishing to broaden their understanding of fundamental concepts and established procedures. The major emphases of Fundamentals of X-ray Diffraction are the acquisition of reliable experimental data and qualitative phase identification using both manual and automated search techniques. Previous X-ray diffraction or crystallography knowledge is not required.

Topics:

- Production and properties of X-rays;
- Components of the diffraction pattern;
- Acquisition of good diffraction data;
- Phase identification;
- Data mining with the Powder Diffraction File™ (PDF®);
- Remote lab demo, solving and structure analysis for single crystal data;
- Applications of X-ray diffraction;
- Computer softwares for visualization and analysis of XRD structures;

Trainers:

Prof. Thomas Blanton, International Centre for Diffraction Data, USA.

Prof. El-Eumi Bendeif, CRM², University of Lorraine, France.

Dr. Ilaria Gimondi, The Cambridge Crystallographic Data Centre, United Kingdom.

Dr. Bernard Owaga, University of KwaZulu-Natal, South Africa.

Local Organizing Committee:

Prof. D. M. Andala, National Research Fund, Kenya

Prof. G. O. Amolo, Technical University of Kenya, Kenya.

Prof. F. W. Nyongesa, University of Nairobi, Kenya.

Prof. R. J. Musembi, University of Nairobi, Kenya.

Dr. M. J. Mageto, Masinde Muliro University of Science and Technology, Kenya.

Dr. B. V. Odari, Masinde Muliro University of Science and Technology, Kenya.

Dr. E. Njogu, Multimedia University, Kenya.

Dr. Z. M. Wanjiku, Chuka University, Kenya.

Mr. J. S. Sifuna, Catholic University of Eastern Africa, Kenya.

How to register:

Fill the form via the link below:

<https://forms.gle/z1Q4EMB83C>

Hgh2jm8 The workshop is free to all participants.

Registration Deadline:

10th July 2023