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(POS-2) Studying Advanced Materials using X-ray Emission Spectroscopy at the REIXS Beamline

Tuesday 10 June 2025 18:00 (2 minutes)

Advanced materials, including superconductors, light emitting materials and battery materials, play an ever-increasing role in society today. Studying these materials is key to reducing overall energy consumption for everyday technology. Soft x-rays have the ideal energy for probing the electronic properties of lighter metal and non-metal elements in these materials; x-ray absorption spectroscopy (XAS) and x-ray emission spectroscopy (XES) are robust techniques to measure the electronic structure in general. More advanced techniques, including resonant inelastic x-ray scattering (RIXS), are invaluable for studying electron correlations in novel materials. The Resonant Elastic and Inelastic X-ray Scattering (REIXS) beamline at the Canadian Light Source (CLS) is a soft x-ray beamline specializing in photon-in/photon-out techniques including those mentioned above. There are many opportunities at REIXS for material scientists wanting to study the electronic properties of their advanced materials. We will showcase the current capabilities offered at REIXS with highlights of some case studies.

Keyword-1

X-ray Emission Spectroscopy

Keyword-2

Advanced Materials

Keyword-3

Author: BOYKO, Teak (Canadian Light Source)

Co-authors: MOEWES, Alexander (University of Saskatchewan); Dr HE, Feizhou (Canadian Light Source); SU-TARTO, Ronny (Canadian Light Source)

Presenter: BOYKO, Teak (Canadian Light Source)

Session Classification: DAPI Poster Session & Student Poster Competition | Session d'affiches DPAI et concours d'affiches étudiantes (5)

Track Classification: Technical Sessions / Sessions techniques: Applied Physics and Instrumentation / Physique appliquée et de l'instrumentation (DAPI / DPAI)