

Critical measurement of the phase fine structures across the copper K-edge

Monday, 2 December 2019 18:26 (1 minute)

Current applications of X-ray Absorption Fine Structure to low absorbing samples such as ultra-thin films in semiconductor and nano-devices have been limited. This is not the case for the phase component of the fine structure as it is generally orders of magnitude larger than the absorption component in the x-ray regime. We will present a technical methodology to retrieve the phase and absorption components of a copper thin film simultaneously at the XFM beamline (Australian Synchrotron) by applying the HERALDO technique across the copper K-edge. The results provide critical experimental benchmark for further theoretical development and has potential to delve into the phase equivalent of the XAFS technique.

Level of Expertise

Student

Do you wish to take part in the poster slam

Yes

Travel Funding

Yes

Speakers Gender

Male

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Session Classification: Welcome Function