

XRD hands on learning : Better data quality, analysis and interpretation

Friday, 27th of September 2019 - UWA



X-ray diffraction has undoubtedly been integral towards materials science research. We want to gather the XRD community to share knowledge and gain ideas on how to improve materials research. For the upcoming series of Malvern Panalytical's XRD workshops across the Asia Pacific region, we have invited our application specialist, Dr Olga Narygina, to share her knowledge.

Olga was previously the Application Specialist in our Supply Centre in the Netherlands, and has recently moved to Brisbane, Australia. Her specialization is in powder X-ray diffraction at ambient and non-ambient conditions. Alongside esteemed researchers from the University of Western Australia, she will take you through basics of X-ray diffraction for the analysis of geological and synthetic materials and present various examples of cutting-edge in operando/ in situ research.

What you learn at the workshop

- How to analyse powders and thin films using XRD
- How to operate our tabletop XRD
- Tips on good sample prep
- How to perform phase ID & other advanced powder XRD analysis

Date: September 27th 2019

Time: 09.00am - 5.00pm

Location: University of Western Australia,
Bayliss Building, Room G32

Register: bit.ly/31pcDsD

Programme

Apart from useful applications sharing, look out for an interactive day for hands-on learning. Try your hand at operating our latest powder X-ray diffractometer, Aeris, as well as HighScore software. Improve the way you analyse and interpret your data. Morning and afternoon tea will be provided. Please register through link below to attend.

For the HighScore software hands on session, each participant will be given a complimentary demo license. Please bring along your own laptop to download. MAC laptops are not supported.

[Register Now:](#)

bit.ly/31pcDsD

Time and Location	Details
9.00 - 9.30am Bayliss building Room G32	Analytical facilities at UWA
9.30 - 10.45am Bayliss building Room G32	Basic and advanced X-ray diffraction applications: <ul style="list-style-type: none">- X-ray diffraction for characterization of various material types (geological and synthetic materials)- in situ and in operando X-ray diffraction
10.45 - 11.45am	Morning Tea
11.00 - 12.30 Bayliss building XRD lab 4.51	Basic powder XRD experiment: <ul style="list-style-type: none">- Hands-on session using Aeris tabletop XRD (sample prep, optimization of measurement conditions, phase ID using HighScore)
12.30 - 1.30pm	Lunch
1.30 - 2.30pm Bayliss building Room G32	Advanced analyses of XRD data using HighScore Plus: <ul style="list-style-type: none">- quantitative phase analyses- quantification of amorph/crystalline- average crystallite size
2.30 - 2.45pm	Afternoon tea
2.45 - 4.45pm Bayliss building Room G32	Thin film analyses on a laboratory diffractometer: <ul style="list-style-type: none">- overview of various methods for thin film metrology- strategies for setting up grazing incidence experiment for phase ID
4.45 - 5.00pm	Recap and questions
5.00pm	End

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