

Advanced Materials Characterisation Webinar Series

Raman Spectroscopy for Materials Characterisation

Thursday 27th May 2021 | 13:00 – 14:00 (BST)

The line-up of international speakers include:



Chair – Raman Spectroscopy for Materials Characterisation

Dr. Sebastian Wood

National Physical Laboratory (NPL), UK

Raman spectroscopy is an enormously powerful and versatile chemical analysis technique, which is widely used in both academia and industry for detailed characterisation of materials. Chemical structure, phase, crystallinity, molecular interactions and packing are all accessible with Raman spectroscopy but effective use requires expert knowledge. This webinar will provide an accessible introduction to the capabilities of Raman spectroscopy for materials characterisation using examples to illustrate specific applications and measurement considerations.



The VAMAS international initiative for Raman standardisation

Dr. Erlon Henrique Martins Ferreira

National Institute of Metrology, Quality and Technology (Inmetro), Brazil

Raman spectroscopy has drawn more and more interest in the last decades as a powerful technique in the characterisation of materials. As a consequence, the need for standardisation emerges to guarantee more reliability in measurements specially for non-specialist users.



Polystyrene reference material for Raman spectrometers

Dr. Nobuyasu Itoh

National Metrology Institute of Japan (NMIJ)

Raman shift is one of the most important parameters for Raman spectrometers. However, there are currently no useful materials to validate it. This presentation will focus on the development of polystyrene reference material for Raman spectrometers.



Understanding variation in measurement of graphene using Raman spectroscopy

Dr. Keith Paton

National Physical Laboratory (NPL), UK

Raman spectroscopy is one of the most widely used measurement techniques for graphene and related 2D materials, providing information on structural disorder, strain, doping and layer number. I will present the results of an international interlaboratory study on the measurement of CVD-produced graphene, highlighting the importance of instrument calibration and choice of data processing algorithms on the variability in the measured metrics.

Organised by the: **Southern Counties Materials Minerals and Mining Society**
(formerly West Surrey Materials Society - WSMS)

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