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How neutron scattering can help improve advanced manufacturing industry?

The Australian Centre for Neutron Scattering at ANSTO has several instruments available for materials science and engineering applications. The instruments have a unique non-destructive ability to determine critical imperfections assist performance of engineering apparatus via radiography and tomography, measure internal residual stresses and textures in crystalline materials, such as metals, alloys, ceramics, and composites. These measurements can be carried out on real engineering components, mock-ups, or test samples with minimal preparation. The results directly impact into optimisation of modern manufacturing processes, improved product reliability, enhanced design performance, reduced production cost, and extended life prediction on significant engineering assets. The versatile team has established a strong record in assisting Australian and international researchers and engineers across a wide range of engineering projects. Over time, we have built an exceptional body of skills, experience and technical expertise, which is on offer to support industrial research and development. This presentation will focus on the challenges and highlights of the application of neutron scattering and imaging to target big and small questions of advanced manufacturing industry.

Level of Expertise

Expert

Presenter Gender

Woman

Pronouns

She/Her

Which facility did you use for your research

Australian Centre for Neutron Scattering

Students Only - Are you interested in AINSE student funding

No

Do you wish to take part in the Student Poster Slam

No

Condition of submission

Yes

Primary author(s) : Prof. ANNA PARADOWSKA, Anna (ANSTO/USYD); REID, Mark (ANSTO); GARBE, Ulf (ANSTO)

Presenter(s) : Prof. ANNA PARADOWSKA, Anna (ANSTO/USYD)

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