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Non-Specialist Talk - Use of neutron diffraction for residual stress mapping in industrial applications

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Abstract :

High penetration of neutrons and high fluxes from neutron beams on the modern neutron reactors provide an excellent opportunity to undertake residual stress mapping non-destructively. Neutron residual stress experiment can be adapted in order to meet various needs in different industrial applications. Measurements can be made inside large and bulk engineering components or high spatial resolution (0.2 mm and better) can be achieved to measure stress distributions in small-scale objects. In this contribution, a short description of the techniques and methods of neutron stress mapping is given and illustrated with multiple examples from different industrial applications.

Award :

No

Level :

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Supervisor :

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Paper :

No

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