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QUOKKA a 40 m small angle neutron scattering (SANS) instrument

QUOKKA is a versatile small angle neutron scattering (SANS) instrument in operation at the Australian research reactor, OPAL [1]. SANS is a powerful techniques for structural characterisation require a minimum of special preparation. As a conventional 40 m pinhole instrument operating with a neutron velocity selector the instrument¹ is capable of providing a statistical and non-destructive perspective on structure over length scales from 10's to 1000's of Ångstrom. QUOKKA has a large flexible sample area, capable of accommodating a variety of sample environments including: standard 20 position sample changer for automated measurements on solids, liquids, pastes and powders; Couette geometry rheometer for in situ rheometry/SANS; a stopped flow device; and a differential scanning calorimeter. QUOKKA is available for general use through a biannual proposal system.

[1] Wood, K.; Mata, J.; Garvey, C. J.; Wu, C. M.; Hamilton, W. A.; Abbeywick, P.; Bartlett, D.; Bartsch, F.; Baxter, P.; Booth, N.; Brown, W.; Christoforidis, J.; Clowes, D.; d'Adam, T.; Darmann, F.; Deura, M.; Harrison, S.; Hauser, N.; Horton, G.; Federici, D.; Franceschini, F.; Hanson, P.; Imamovic, E.; Imperia, P.; Jones, M.; Kennedy, S.; Kim, S. J.; Lam, T.; Lee, W. T.; Lesha, M.; Mannicke, D.; Noakes, T. J.; Olsen, S. R.; Osborn, J. C.; Penny, D.; Perry, M.; Pullen, S. A.; Robinson, R. A.; Schulz, J. C.; Xiong, N.; Gilbert, E. P., QUOKKA, the Pinhole Small-angle Neutron Scattering Instrument at the OPAL Research Reactor, Australia: Design, Performance, Operation and Scientific Highlights. J App Crys 2018, 51.

Topic

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