

50 Years of Neutron Backscattering Spectroscopy



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A performance boost for reactor backscattering - IN16B at ILL

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The new flexible high flux sub- μeV backscattering spectrometer IN16B at ILL is in full user operation with its Si111 configuration, offering more than a factor of 10 higher flux, a better signal-to-noise ratio, a wider dynamic range and an improved energy resolution than its predecessor IN16. Furthermore a Si311 configuration is commissioned and a GaAs200 and a time-of-flight option (BATS) are planned for commissioning end 2016. In this talk we present the main instrumental features which characterise this largely improved spectrometer: quasi ballistic focusing guide, background chopper, PST, Doppler drive and increased analyser solid angle in the vacuum housing of the secondary spectrometer. We report on the performance of the above mentioned instrument configurations as measured on standard samples.

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