

Neutron Brillouin scattering in dense nitrogen gas

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ABSTRACT: In order to develop the field of neutron Brillouin scattering, we have assembled a new neutron spectrometer system and have used it to study the scattering from dense nitrogen gas at wave numbers from 0.05 to 0.15 Å⁻¹. We have demonstrated both that the new system is efficient and successful, and that these new data conform to existing theory.