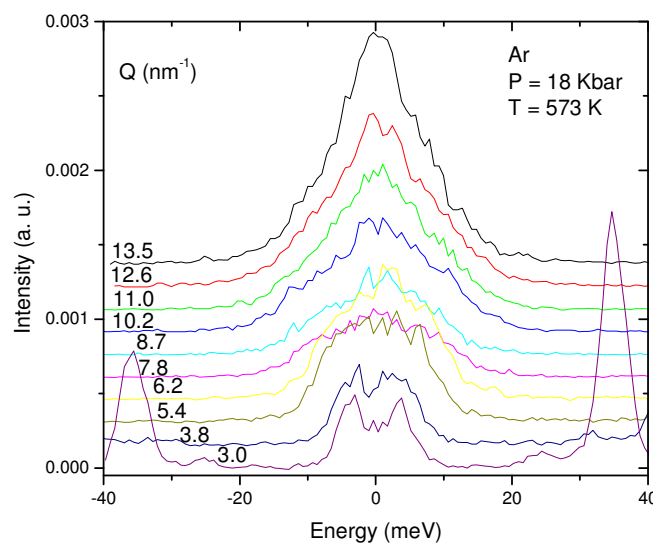


We performed some preliminary measurements on fluid Argon at high pressure and temperature at 5 thermodynamics points: 3.3 GPa and 573 K, 2.4 GPa and 573 K, 2.1 GPa and 410 K, 1.1 GPa and 298 K and 1.8 GPa and 573 K.

The empty cell subtraction was not perfect and the diamonds were not properly oriented, so that the region of the quasi elastic peak is not fully reliable, in particular at low Q. For this reason the measurements should be repeated using well oriented diamonds and a special vacuum chamber which we have built in collaboration with the ID28 staff, dedicated to experiments on fluids with the DAC at high temperature. This vacuum chamber has been successfully used, showing that the spurious extra intensity of the quasi-elastic peak at low Q has been completely removed, and making the residual one at least reproducible so that it can be reliably subtracted from the total measured signal.

Due to the long integration times and preferring to have a few thermodynamical points on Ar, we did not have the time to measure also fluid Neon. We will probably submit a continuation of this experiment for this purpose.



IXS measurements on fluid Ar at the indicated pressure and temperature. The empty cell contribution has been subtracted.