

## Extreme Sample Environment at ISIS Neutron Source

The ISIS pulsed neutron and muon source at the Rutherford Appleton Laboratory is a world-leading centre for research in the physical and life sciences. The popularity of neutron scattering experiments is rapidly growing due to the immense progress achieved in neutron scattering instrumentation and sample environment. Here I am going to describe briefly the neutron scattering method and explain why neutron scattering needs cryogenic temperatures. I am also going to present few examples of extreme condition sample environment used in ISIS neutron scattering experiments including: ultra-low temperatures, high magnetic fields, high pressure and cryogenic environment for soft matter samples.

### Summary

**Primary author:** KIRICHEK, Oleg (STFC)

**Presenter:** KIRICHEK, Oleg (STFC)

**Session Classification:** Research in the cryogenic field (chairperson: Christoph Haberstroh)