

## Achievements

- We signed in December 2019 a technical annex for an Estonian in-kind contribution to the Fluids, Liquids, Vapours, Gases and Complex Fluids sample environment, FLUCO. This in-kind project on developing two cell for in-situ/operando electrochemistry for the neutron scattering instruments started in February of this year with a visit from our Estonian partners at ESS.
- Alice Corani started as the joined Sample Environment Technician between FLUCO and SULF (Sample and User Laboratory Facilities) last fall. She is bridging the gap between preparing and conditioning the samples within the sample environment equipment in the lab to moving the whole setup to the neutron scattering experiment. This is an important step for many of FLUCO's in-situ cells, e.g. cycling of batteries in the in-situ impedance cells for neutron scattering.
- FLUCO has moved its office to the E04 buildings on-site and begun to move equipment to our intermediate lab space in E04 that will be ready by summer. We will work there and close to our colleagues from the other sample environment platforms and SULF until the lab fit-out in D04 will commence in 2021.
- FLUCO completed the first manual gas handling manifold usable for inert as well as flammable gases like hydrogen, methane (see Figure 1). This is of interest to the renewable energy community. This will allow gas adsorption experiments between 1 mbar and 10 bar in calibrated volumes of 50 ml, 150 ml and 500 ml.

## Challenges

- FLUCO is proceeding nicely and according to plan. The only uncertainty is currently the COVID19 pandemic.



Figure 1: Gas handling manifold. Front view (left) and back view (right).