

Durham X-ray Absorption Facility (DXAF) – Newsletter

February 2023

Welcome all to this month's newsletter for DXAF. There have been a few developments in the facility in the past few weeks including new experiments and branding! A big thank you, as since the last newsletter we have had contact from many keen readers looking to use the facility. So, enjoy this month's updates below!

What has been going on?

New Holder!

Over the last few months, a holder has been developed to perform *ex situ* XAFS studies using a capillary. This has the potential of running samples which have been run on other analytical equipment (such as PXRD), or a sample under a particular atmosphere (e.g. if it is air sensitive) can now be run by sealing the capillary under those conditions and bringing to the machine! This is also important for ultimately flowing gases through a capillary *in situ*.

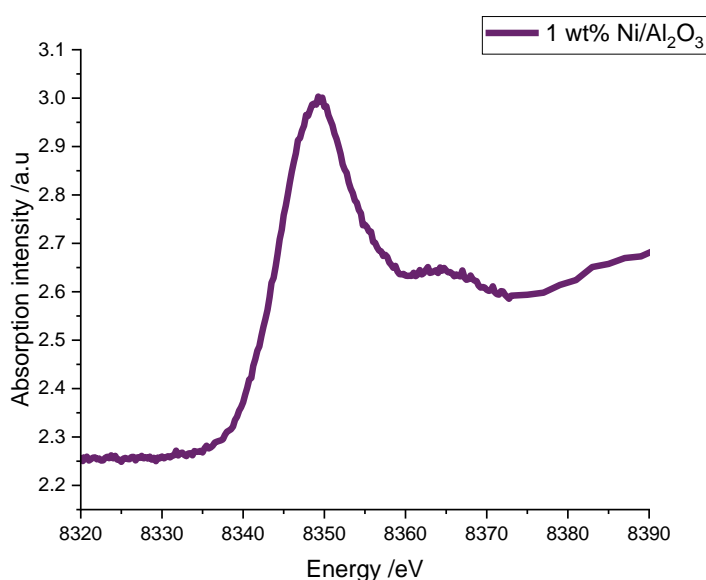
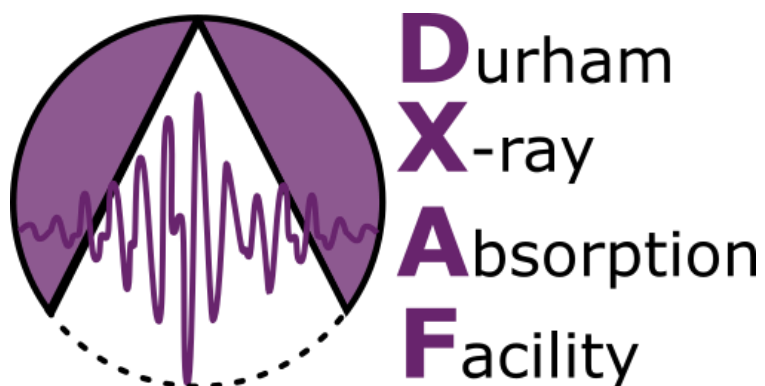


Fig. 1: New capillary holder (left) and a Ni K-edge XANES on 1 wt% Ni /Al₂O₃ collected through a 0.01 mm thick capillary and an internal diameter of 3 mm.

We have been able to successfully get spectra from Cu and Ni samples using the holder and now ready to test it on other systems.

We have a logo!



You can't have an X-ray facility without a radiating logo to match! DXAF has now got some branding which should be used in all future correspondence including the next newsletter!

What is coming up?

We have seen a growth in people interested in DXAFS. From the previous newsletter we have received a lot of interest in conducting XANES experiments using the EasyXAFS. We are still looking for more eager scientist to conduct some 'light-touch' pellet experiments, so get in touch!

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Useful links:

<https://www.easyxafs.com/>

Durham Uni DXAF website coming soon!