

New possibilities in non-ambient XRD from Anton Paar

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Non-ambient XRD continues to be a vital tool for both academic and industrial research where it is necessary to monitor changes in a sample under different environmental conditions. The most common environmental parameter which is varied is temperature, but relative humidity, pressure, gas environment, and electrical load are also important factors. This talk will present the latest developments in non-ambient XRD equipment from Anton Paar which further extend the capabilities of in-house XRD measurements.

The talk will cover the DCS 500; an upgrade on the DCS 350 domed cooling stage for 4-circle goniometers. The extended specifications will be presented together with other improvements to the cooling system and temperature control mechanism which give an improved performance for the user. In addition, the latest in non-ambient attachments for energy research will be shown. The battery sample holders for TTK 600 are the first non-ambient possibility on the market for in-situ and in-operando XRD measurements on batteries. The battery sample holders for TTK 600 add an extra dimension to XRD measurements in battery research.