

XRD facility at SINTEF MK in Oslo

Department: Sorbent Technologies
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- PANalytical Empyrean X-ray diffractometer equipped with a PIXcel^{3D} detector.
- Measurements can be performed in both reflection and transmission mode.
- The instrument is equipped with:
 - A 45 position sample changer.
 - A flat sample holder stage for analysis of powders ,films or solids.
 - A capillary spinner.
 - A programmable divergence slit for both fixed or variable divergence slit.
 - A focusing X-ray mirror.
 - A hybrid monochromator that can for instance be used for small angle X-ray scattering (SAXS) measurements or thin films.
 - A XRK 900 reactor cell from Anton Paar for *in situ* measurements.

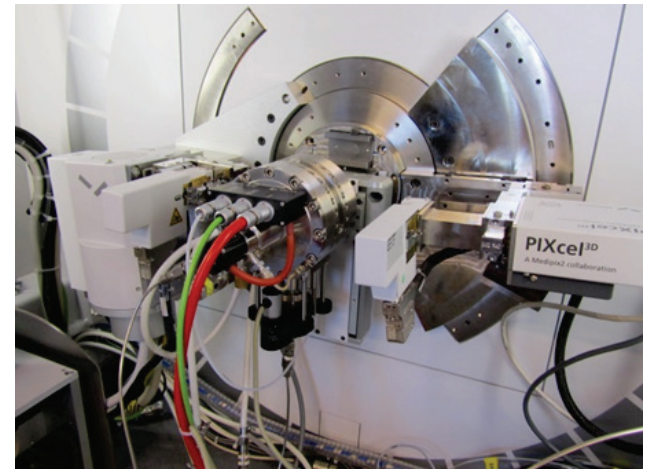
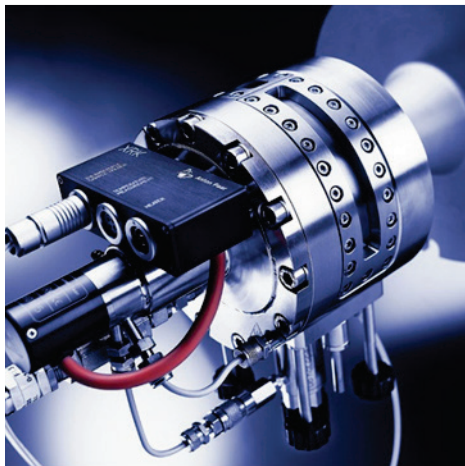


PANalytical Empyrean diffractometer.

XRD: *in situ* studies

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- *In situ* studies can be carried out by coupling an XRK 900 reactor chamber to the diffractometer.
- The *in situ* measurements can be performed using various gas flows, steam or vacuum in a temperature range 20- 900° C and pressures up to 10 bar.
- The reactor cell is coupled to an automated gas switching system.



The Anton Paar XRK 900 reactor chamber for *in situ* studies.