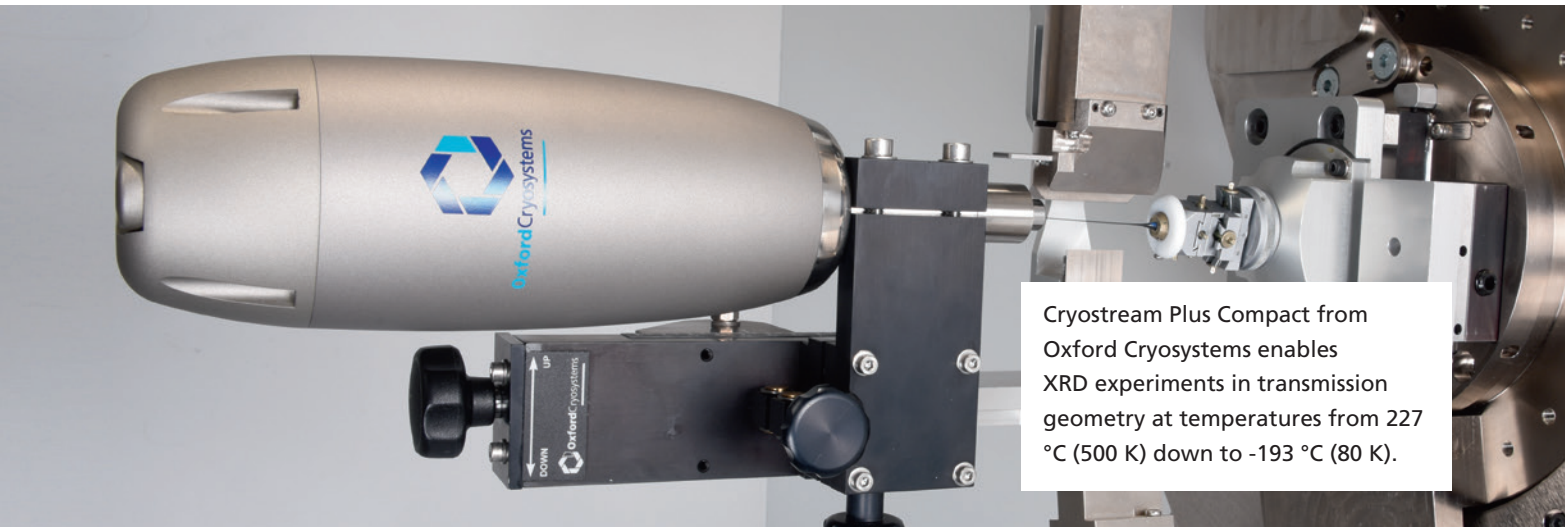
PANalytical
get insight



Cryostream Plus Compact from Oxford Cryosystems enables XRD experiments in transmission geometry at temperatures from 227 °C (500 K) down to -193 °C (80 K).

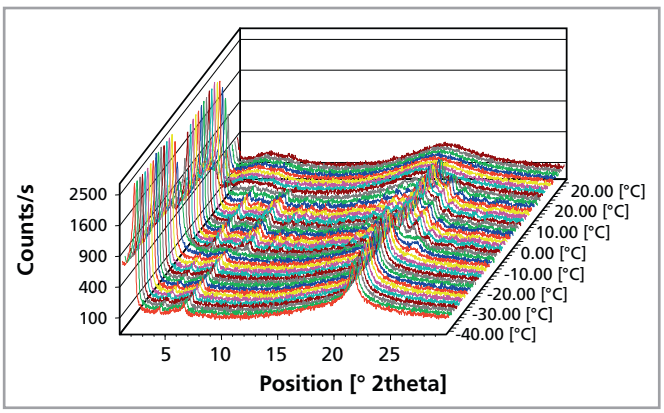
Non-ambient attachment for XRD

Cryostream Plus Compact

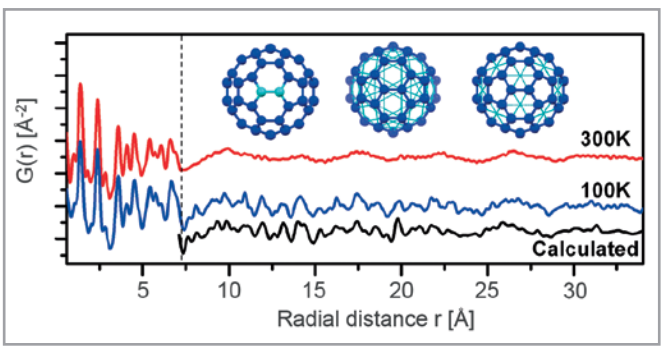
Benefits

- Unique device for low- and medium-temperature experiments in capillary geometry:
  - minimizes preferred orientation
  - excellent low-angle data
  - allows study of samples sensitive to air or humidity
- Wide temperature range
- Laminar gas flow significantly reducing ice formation
- Fast cool down to 100 K in just 20 min
- Stable temperature regime in excess of 0.1 K
- Low and constant N_2 consumption
- Optional automatic refill unit available, allowing experiments of infinite duration

Application examples



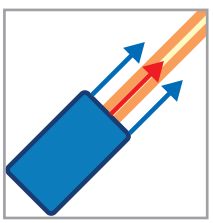
In situ *monitoring of phase transformation of LOL (a fat) recorded 'live' at a temperature ramp of 2 deg/min*



Pair distribution function of C_{60} (fullerene) as a function of temperature

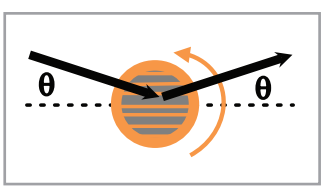
Cryostream Plus Compact

Features



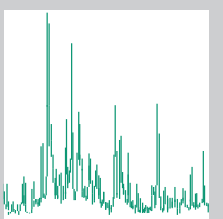
80 K – 500 K
Cool-down time to 100 K: 20 min

Gas stream cooling/ heating

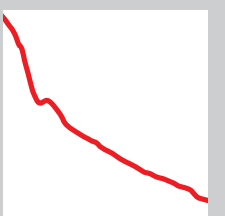


Capillary spinner in transmission geometry and glass capillary

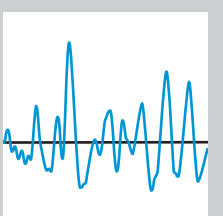
Applications



Powder XRD



*Small-angle X-ray scattering**



*Pair distribution function**

** Application developed by PANalytical*

Conclusion

The Cryostream Plus Compact is an ideal attachment for *in situ* XRD applications at variable temperatures requiring capillary transmission geometry. It is suitable for XRD studies of both organic and inorganic powders.

www.oxcryo.com **www.panalytical.com**

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