

X-ray studies on H₂O under high pressure using the EB-ESRF 4th generation synchrotron.

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Abstract:

Active research is currently underway to investigate the properties of matter under very high pressure. New generation X-ray facilities are essential. Complementarity between static and dynamic studies is observed. First, we will describe the context of this modern high-pressure field. Then, we will focus more on two recent studies to illustrate some novel opportunities in using the 4th generation synchrotrons:

- Measurement of the transition to superionic face-centered cubic (fcc) ice
- Freezing kinetics of supercompressed water