

Abstract Submitted
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New possibilities at beamline ID27 of the ESRF MOHAMED MEZOUAR, GASTON GARBARINO, PARASKEVAS PARISIADIS, JEROEN JACOBS, STANY BAUCHAU, ESRF — Beamline ID27 is fully optimised for monochromatic high resolution XRD in order to address the most exciting and challenging questions related to science at very high pressures. This beamline can easily accommodate very complex sample environments such as the double-sided laser heating system, the Paris-Edinburgh press and the HP helium cryostat. These techniques are powerful tools to explore a very wide pressure ($P > 2$ Mbar) and temperature domain ($5 < T < 5000$ K). The beamline components (source, optics and detectors) are entirely designed to give the best possible response to these very demanding conditions. The most recent developments including an in situ CO₂ laser heating system and a high temperature resistively heated diamond anvil cell will be presented.

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