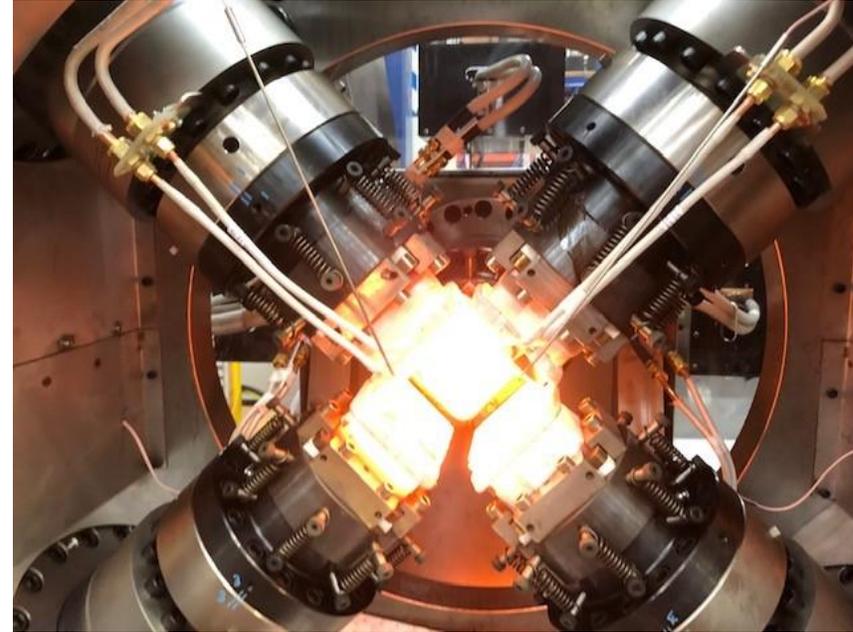
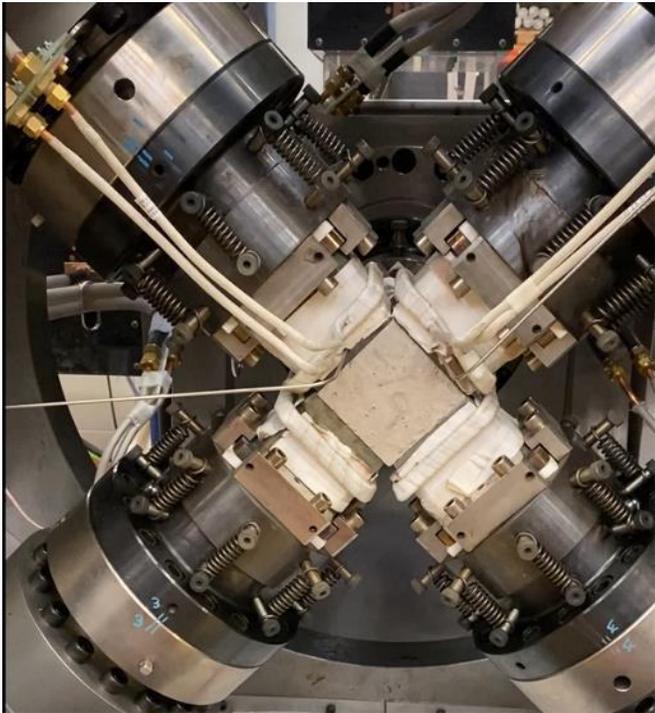


Fire and Impact Laboratory for Resilient Infrastructure Materials

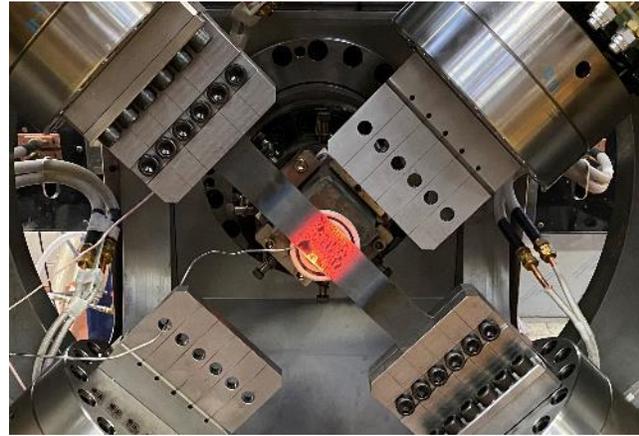
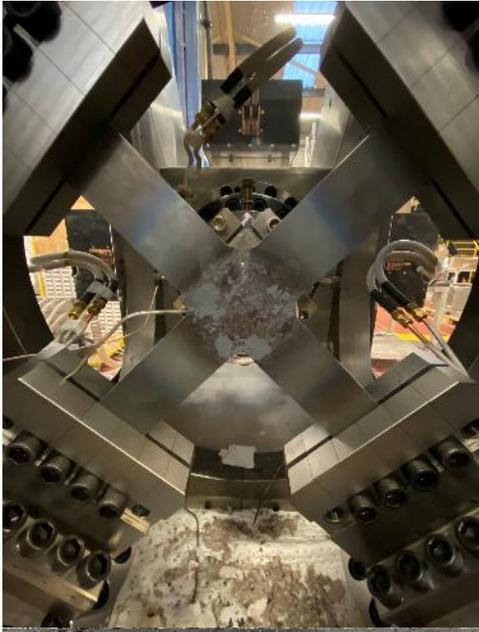
- **Multi-Dimensional High Temperature Facility (MDHTF)**
 - Up to 1000°C in temperature
 - 3-axial loading up to 1000kN of arbitrary combination under compression
 - Biaxial tensile loading up to 250kN of arbitrary combination
 - Tensile fatigue testing at high temperature
- **High speed, High strain rate, High temperature Testing Facility (H3TF) and instrumentations (see details later)**

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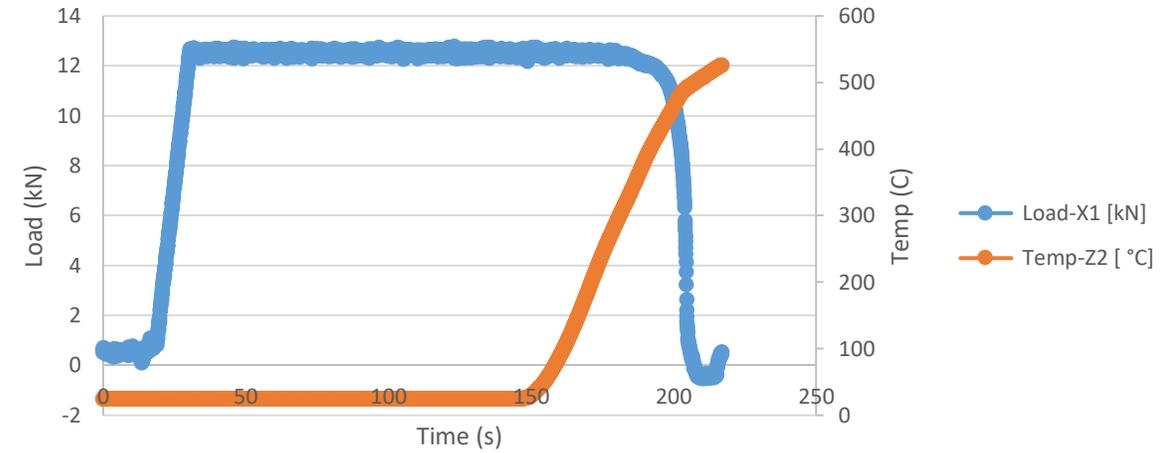
MDHTF - Compression



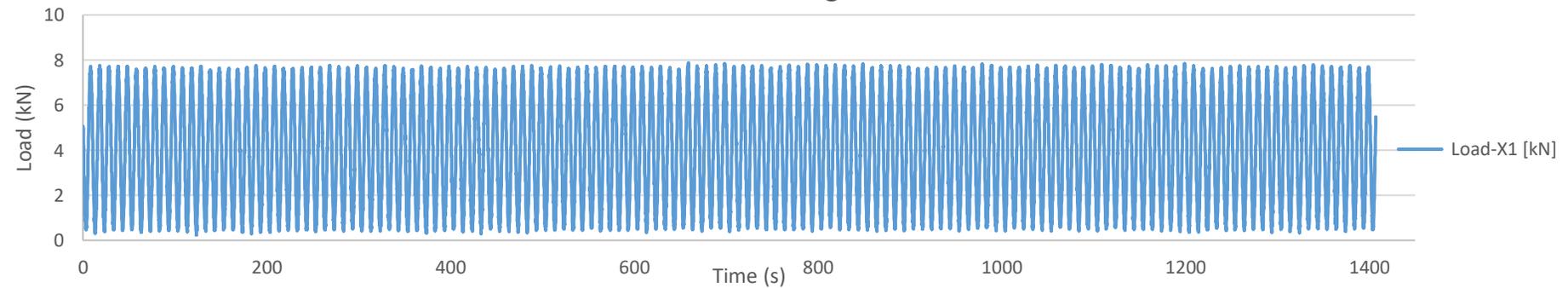
MDHTF – Tensile Loading



12.5kN Transient Heat to Failure



0.5-7.5kN Fatigue 600C



High speed, High strain-rate, High temperature Testing Facility (H3TF)

19mm SHTB System:

- Direct tensile test of metallic specimens
- Temperature chamber between -196 to 1200 °C
- Strain-rates in the range of 10^2 - 10^4 1/s

120mm SHPB System:

- Tension and compression set-ups
- Confinement pressure up to 40MPa
- Temperature between -196 to 800 °C
- Strain-rates in the range of 10^1 - 10^3 1/s

High speed, High strain-rate, High temperature Testing Facility (H3TF)

High-Speed Impact Launcher System and instrumentations

- Impact velocity from 500 m/s to 5000 m/s depending on the mass/size of projectiles
- 1.5 m vacuumed impact chamber with instrumentation windows
- Equipped with high-speed/ultra-high-speed video systems (up to 5Mfps) and DIC (2D/3D), high-speed thermal camera (up to 3Kfps, multi-channel particle velocity measurement system, flash X-ray, high frequency data acquisition systems etc.