## Developing technologies for $\mu$ SR at high pressures

## Specific Aims:

- Development of a solid-sample pressure cell for pressures beyond 2.5GPa, and designed for low measurement background. Spectra will be recorded to evaluate the performance and commission the cell.
- · Development of a gas-phase  $\mu$ SR sample cell, with a working pressure of approximately 200bar and having an internal radio-frequency coil. Demonstration spectra will be recorded both with and without RF excitation.

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Where to look for solutions?

- 1.P-CELL DESIGN:
  - · NEW SHAPE,
  - · NEW MATERIALS.

2. BEAM LINE OPTIMIZATION