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Ultra High Temperature Mechanical Testing of ZrB₂ Ceramics

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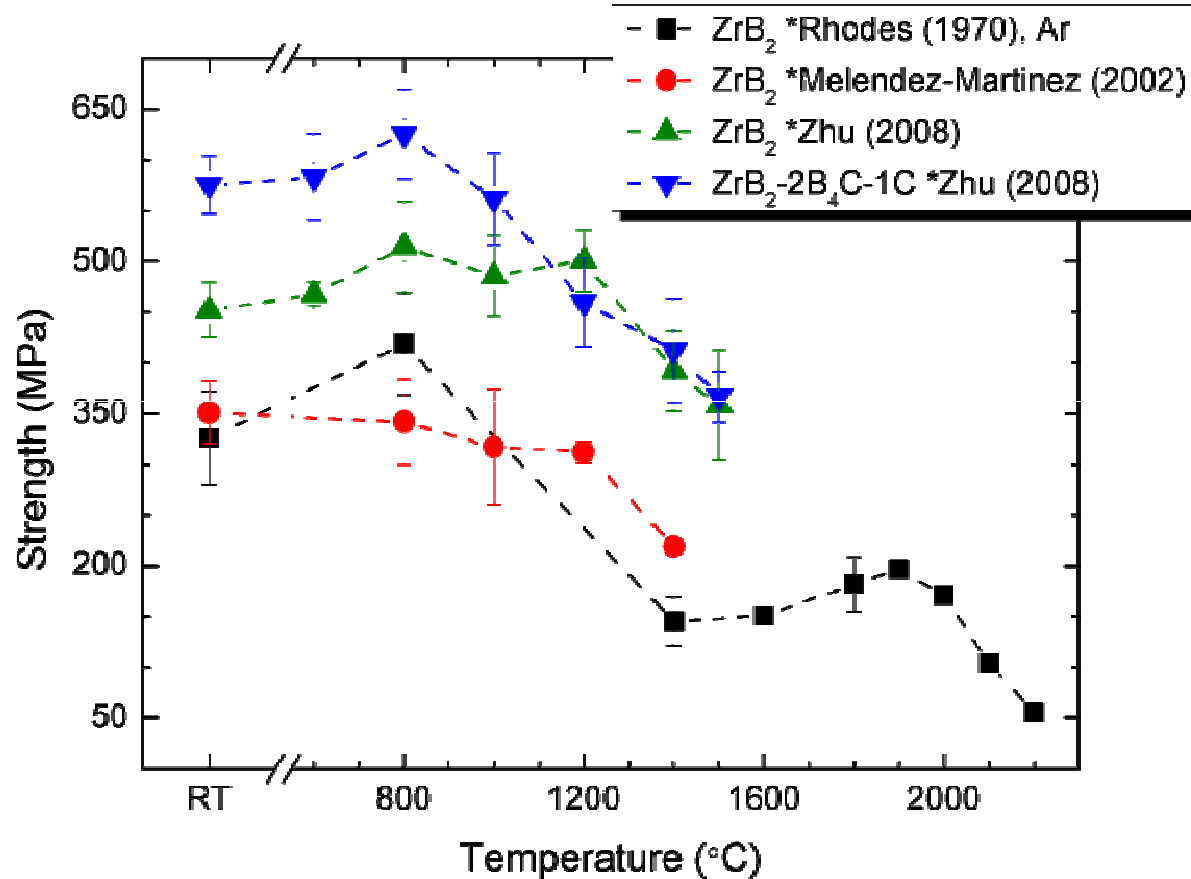
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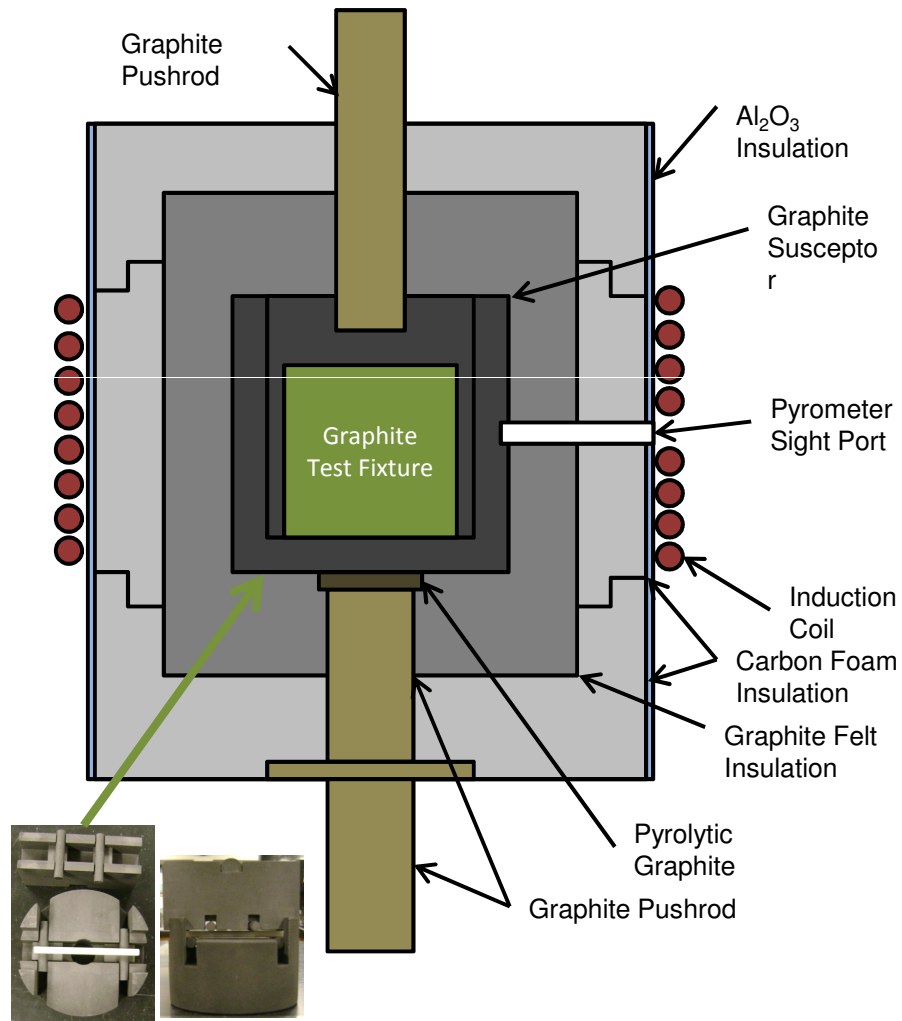
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Background



- Limited study to date of mechanical properties of ZrB_2 at elevated temperatures

High Temperature Mechanical Testing



- 2500°C+ with atmospheric control

ZrB₂ + 0.5 wt% C

- Fabricated dense monolithic ZrB₂ via hot pressing
- Flexure strength to 1600°C in air, 2300°C in argon
- Fractography

