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Ultra High Temperature Mechanical Testing of ZrB2 Ceramics

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• Limited study to date of mechanical properties of ZrB$_2$ at elevated temperatures
High Temperature Mechanical Testing

- 2500°C+ with atmospheric control
ZrB$_2$ + 0.5 wt% C

• Fabricated dense monolithic ZrB$_2$ via hot pressing
• Flexure strength to 1600°C in air, 2300°C in argon
• Fractography