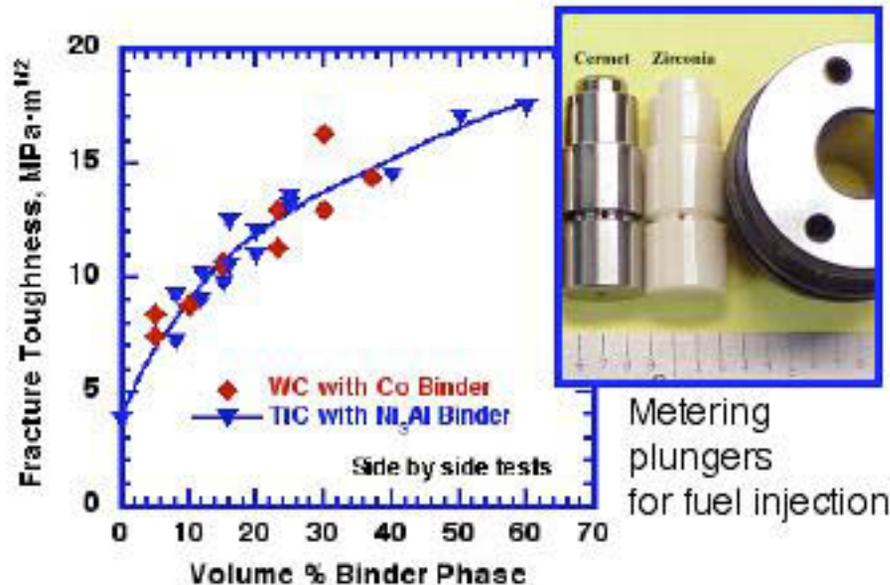


Advanced Cermets For Fuel Injection Systems



- Flexure strengths >1000 MPa
- High toughness & low specific weight
- Thermal expansion → that of steels
- Excellent wear & corrosion resistance
- Readily adaptable, low cost processing
- Machineable by EDM

ORNL, Cummins, CoorsTek, SIU

Objective

- ❑ Develop more reliable materials for advanced high pressure fuel injection system components

Benefits

- ❑ Improved fuel economy
- ❑ Reduce engine emissions
- ❑ Improved reliability and durability

Progress

- ❑ Wear testing completed
- ❑ Injector components fabricated
- ❑ Engine testing of cermet fuel injection components underway