



**Miladin Radovic, Assistant Professor**

Department of Mechanical Engineering & Materials Science and Engineering Program

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TEXAS A&M **ENGINEERING**

### Research:

- Processing of ceramics and ceramic composites for high temperature applications in harsh environments;
- Mechanical and thermal properties of ceramics and ceramic composites at high temperatures ; Anelastic phenomena in ceramics.
- Materials: MAX phases, solid-state ionics and geopolymers.

### Teaching:

Fundamentals of Ceramics, Fuel Cell Technologies, Engineering Laboratory, Materials Science, Fundamentals of Materials Science and Engineering.

### Laboratory for High Temperature Materials:

SPS, HIP, Tape Casting, Cold pressing, Powder mixing, seven environmental furnaces (up to 1200-1700°C), MTS high temperature testing machine (up to 1700°C), resonant ultrasound spectroscopy (up to 1300°C), four creep testing frames (up to 1400 °C), etc.



### Postdoc:

Dr. Sandip Basu

### Graduate Students:

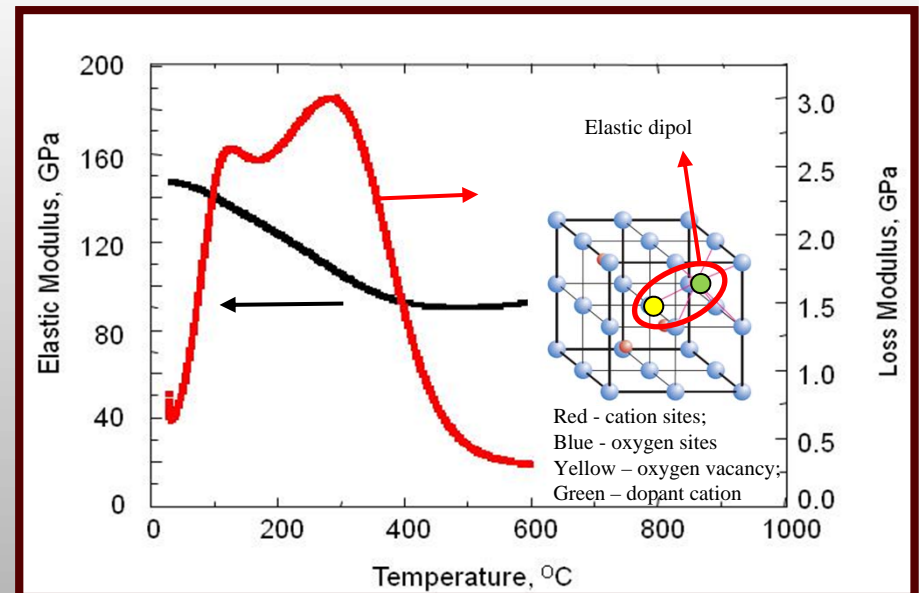
Marci Lizcano, Kwonguk Jeon, Eric Ormond, Liangfa Hu, Rogelio Benitez, Peipei Gao, Pradeep Gudlur

### Undergraduate students:

Francesco Schaff, John Beck, Keith Driedger

## CAREER: Effects of Anelastic Relaxation of Defect Complexes on the Mechanical Behavior of Oxide Ceramics

DMR- 1057155



Elastic and loss moduli of 8mol% Y<sub>2</sub>O<sub>3</sub> stabilized ZrO<sub>2</sub> determined by DMA.

The main objectives are to characterize and understand effects of type, concentration and association of point defects on the mechanical properties of pure and doped binary and ternary oxides with high ionic or mixed ionic-electronic conductivity.

Laboratory for High Temperature Materials