

**Invited Presentations at Universities, Conferences, and Research Institutions
(from September 1990)**

1. "Structural Development During Sol-Gel Processing," Workshop on Powder Free Processing for Advanced Ceramics, Schloss Ringberg, West Germany, November 1990.
2. "Morphological Characterization of Gel Ultrastructures," Fifth Ultrastructure Processing Conference, Orlando, Florida, February 1991.
3. "Sol-Gel Processing of Ceramic Materials: Analysis and Control of Structural Development," Department of Chemical Engineering, Georgia Tech, May 1991.
4. "Grain Boundary Chemistry and the Properties of Zirconia Ceramics," EMSA and MAS Annual Meeting, San Jose, August 1991.
5. "Microstructural Development in Sol-Gel Processing," AIChE Fall Meeting, Los Angeles, November 1991.
6. "Sol-Gel Processing of Ferroelectric Thin Films," Hughes Research Labs, Malibu, CA March 1992.
7. "Sol-Gel Processing of Ceramic Materials," Physical Chemistry Div., Dept. of Chemistry, UCI, April 1992.
8. "Crystallization of Sol-Gel Thin Films," Crystal Growers Assoc. of Southern CA, June 1992.
9. "Grain Boundary Phases in Yttria Stabilized Zirconia," Fifth International Conference on Zirconia, Melbourne, Australia, August 1992.
10. "Microstructural Development in Sol-Gel Derived Ferroelectric Thin Films," Naval Research Laboratory, Washington D.C., May 1993.
11. "Microstructural Development in Sol-Gel Derived Dielectric and Ferroelectric Oxide Thin Films," Materials Science & Engineering Department, UCLA October 1993.
12. "Microstructural Development of Sol-Gel Derived Oxide Thin Films," Ceramic Engineering Department, University of Illinois, Champaign-Urbana, April 1994.
13. "Microstructural Development in Sol-Gel Derived Ferroelectric Thin Films," Microscopy Society of America 52nd Annual Meeting, New Orleans, August 1994.
14. "Microstructural Design of Crystalline Oxide Thin Films via Sol-Gel Routes," Materials Science & Engineering Department, University of California, Berkeley, February 1995
15. "Microstructural Evolution of Sol-Gel Derived Ferroelectric Thin Films," Sandia National Lab, Albuquerque, NM, February 1995.

16. "Intergranular Phases in Zirconia Ceramics," Los Alamos National Lab, February 1995.
17. "Ferroelectric Thin Films via Sol-Gel Processing," Materials Research Laboratory, University of California, Santa Barbara, March 1995.
18. "Microstructural Development of Sol-Gel Derived Barium Titanate Thin Films," Fifth International Symposium on Integrated Ferroelectrics, Colorado Springs, March 1995.
19. "Microstructural Design of Oxide Thin Films via Sol-Gel Routes," American Chemical Society National Meeting, Symposium on Sol-Gel Synthesis of Catalysts & Advanced Materials, San Francisco, April 1997.
20. "Design of Superplastic Oxides using Grain Boundary Phases," Materials Science and Engineering Program, Caltech, March 1998.
21. "Superplastic Deformation of Cubic Yttria Stabilized Zirconia Using Intergranular Phases" Symposium on Interfaces and Microstructures in Materials, UC Santa Barbara, April 1998.
22. "The Design of Superplastic Fine Grain Ceramics using Intergranular Phases," JIMIS-9, Towards Innovation in Superplasticity II, Kobe, Japan, September 1998.
23. "Grain Boundary Engineering of Highly Deformable Ceramics," Materials Research Society, Symposium on Superplasticity: Current Topics and Future Potential, November, 1999.
24. "Mentoring Strategies for Underrepresented Students," NSF PAESMEM Workshop, March 2003, Washington D.C.
25. "Interfacial Design for Superplastic Deformation of Zirconia Ceramics," American Ceramic Society Annual Meeting, April 2003.
26. "Nanocrystalline Ceramics for Superplastic Forming," International Materials Research Society (MRS) Conference, Cancun, Mexico, August 2005
27. "[Observations of Metal-like Behavior in Superplastic Ceramics](#)," Department of Mechanical Engineering, UC Riverside. October 2005.
28. "Should Mentoring Be an Expectation, Not an Option, for Faculty?" Southeast Alliance for Graduate Education and the Professoriate (SEAGAP), Gainesville, Florida, January 2006.
29. "Comparison of Electrical and Chemical Grain Boundary Widths in Cubic Yttria Stabilized Zirconia," Oak Ridge National Laboratory, May 2006.
30. "High Temperature Deformation and Superplasticity in Mullite and Mullite Composites," International Conference on Mullite, Vienna, June 2006.

31. "Dislocation Assisted High Temperature Deformation in Mullite and Mullite Composites," Stanford University, Sinclair Symposium, February 2007.
32. "Grain Size Effects in Solid Oxide Electrolytes," Materials Research Society, San Francisco, April 2007.
33. "Superplastic Ceramics," UCLA, Materials Science and Engineering Department, May 2007.