



TMS2013

142nd Annual Meeting & Exhibition

March 3-7, 2013

Henry B. Gonzalez Convention Center • San Antonio, Texas, USA

***Make the Most of Your Travel to San Antonio:
Participate in a TMS Continuing Education Course***

NEW APPLICATIONS OF SMALL-SCALE MECHANICAL TESTING TUTORIAL

Presented in conjunction with the Fatigue and Fracture of
Thin Films and Nanomaterials Symposium

Sunday, March 3, 2013

Sponsored By: TMS Structural Materials Division

Instructors

Virginia Ferguson, University of Colorado, Boulder; Sandra Korte, University of Erlangen-Nuremberg;
and Chris Eberl, Karlsruhe Institute for Technology and Fraunhofer Institute for Mechanics of Materials
IWM

Course Overview

This tutorial will cover new advances in small-scale mechanical testing techniques with emphasis on measuring environmentally dependent mechanical behavior. In real applications, materials can experience high temperatures and chemically active environments, requiring that the mechanical properties be known in these conditions. Tutorial participants are encouraged to bring applications-related questions for an open panel discussion of testing techniques. The topics to be covered include:

- Nanoindentation Techniques
- Fatigue of Thin Films
- Testing at Elevated Temperatures
- Proper Pillar Compression
- Chemical and Environmental Effects
- Open Panel Discussion

Who Should Attend and Benefits

PhD students, post-docs, industrial researchers studying mechanical behavior of thin films and small volumes with emphasis on testing in different environments (thermal, wet, cyclic, and chemical environments) are encouraged to attend. Participants will gain a thorough background in nanoindentation techniques as well as learning how nanoindentation can be implemented with environmental control. Finally, with an open panel discussion, specific questions can be addressed by experts in the field.

Course Registration Fees* (Advance Rates Valid through February 1, 2013)

Advance Member:	\$265
Advance Nonmember:	\$295
Late/onsite Member:	\$315
Late/onsite Nonmember:	\$345

* Registration fee includes continental breakfast and coffee breaks.

For more information on all TMS2013 Continuing Education Courses, visit www.tms.org/TMS2013

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