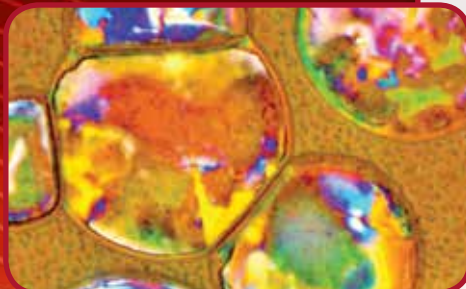


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Manuscript Deadline: *November 1, 2018*

The Thin Films and Interfaces Committee is seeking papers on the topic of
Interfacial Stresses and Strains: Effect on Electrical and Optical Properties

Invited Topics:

- Engineering of interfacial stresses and strains in semiconductors and dielectric thin films
- Characterization of stressed surfaces by XRD, raman, micro-raman, SEM and TEM
- Effect of lattice mismatch deformation on optical properties of strain engineered LEDs
- Optical properties of surfaces and interfaces
- Electrical properties of stressed materials (e.g., Si, Ge, etc. ...)
- Interfacial stress in graphene-monolayer nanocomposites
- Strains in pulsed laser deposition films
- Metal-dielectric interfaces
- Band-gap modulation in multilayers
- Quantitative statistical analysis of interfacial effects including modeling of carriers mobility and bandgap modulations
- Modeling optical and electrical properties as function of interfacial stresses
- Surface chemistry, nucleation and growth phenomena for engineered interfaces with materials
- Theoretical bandgap modeling approaches under various types of stress and engineered surfaces

Interfacing materials with dielectrics, metals, semiconductors or alloys have been demonstrated to cause major effects in their electronic, optical and electrical properties. Interfaces typically introduce stresses and strains that lead to alterations in carrier mobility and bandgap modulations, among other major changes. Recent studies have indicated that specially engineered Si stresses can yield efficient light emitting devices. This special topic will focus on various types of engineered stresses (tensile, compressive and inhomogeneous) and effect on bandgap, carrier confinement etc. Also covered will be theoretical modeling approaches that are necessary for the understanding of material interfaces. In particular, papers are invited on the topics listed to the left.

Original research papers should be 3,000-6,000 words with up to 8 figures maximum; review papers should be 6,000-10,000 words with up to 15 figures maximum.

Detailed author instructions are available at:

<http://www.tms.org/AuthorTools/>

Keywords for this topic:

Thin films, surface modification and coatings, electronic materials, characterization

Guest Editors for the JOM topic are Sufian Abedrabbo, Anthony T. Fiory, and Nuggehalli M. Ravindra:

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If you are interested in submitting a paper, upload your manuscript at <https://www.editorialmanager.com/jomj/>

Please note that all submissions will be subject to peer review. Submission does not guarantee acceptance.