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# TMS 2023

## 152<sup>nd</sup> Annual Meeting & Exhibition

MARCH 19–23, 2023  
SAN DIEGO CONVENTION CENTER &  
HILTON SAN DIEGO BAYFRONT  
SAN DIEGO, CALIFORNIA, USA  
#TMSANNUALMEETING



## SUBMIT AN ABSTRACT BY JULY 1 AND JOIN US AT TMS2023 FOR THIS SPECIAL SYMPOSIUM!

### HONORARY SYMPOSIUM

## Alloy Behavior and Design Across Length-Scales: An SMD Symposium Honoring Easo George

#### ABOUT THE SYMPOSIUM

Through his creativity and scientific excellence, Easo George has made seminal contributions to metallic materials research. During his tenure at the Oak Ridge National Laboratory (ORNL) and the Alloy Behavior and Design Group, most recently as Governor's Chair, he led the nation's most active alloy development research activities. His expertise in phase transformations and alloy processing has enabled innovations in intermetallics, refractory alloys, and high entropy alloys. His group's research has provided insights in the wide-ranging topics of ductility and fracture behavior in intermetallics, deformation behavior of refractory metals, and compositional effects in high entropy alloys. In addition, his innovative work on the solidification of eutectic single-crystal microstructures provided a unique pathway for creating small material volumes for exploring size effects in mechanical behavior. In addition to the impact of his group's own research, he also generously enabled the research efforts of many collaborators by providing alloys with highly controlled chemistries and microstructures. This symposium will provide a forum for presentation of topical advances in:

- Principles of alloy behavior and design
- Strategies for defeating the strength-ductility "trade-off"
- Compositionally complex (high entropy) alloys
- Small-scale mechanical behavior
- Links between deformation mechanisms and mechanical behavior
- Advanced metallic alloys and intermetallics for high temperature structural applications



#### ABOUT THE HONOREE

**Easo George** is Emeritus Professor, Materials Science and Engineering, University of Tennessee (UT) and Apl. Professor (Adjunct), Institute for Materials, Ruhr University Bochum, Germany. Before retiring, he was the UT-ORNL Governor's Chair for Advanced Alloy Theory and Development. Prior to that, he was

Professor of Materials Design and Director of the Center for Interface Dominated High Performance Materials at Ruhr University. Before that, he was a Distinguished Staff Member and led the Alloy Behavior and Design Group comprising multiple ORNL scientists and technicians, students, postdocs, and visiting scholars/scientists/professors. George earned his BTech in Metallurgical Engineering from the Indian Institute of Technology, Kanpur in 1981 and Ph.D. in Materials Science and Engineering from the University of Pennsylvania in 1985.

George is best known for his research on phase stability and deformation mechanisms of high-entropy alloys; elementary mechanisms of nanoscale mechanical behavior; environmental embrittlement, alloying effects, and vacancy-induced anomalous strengthening in intermetallics; and the hierarchy of creep cavity nucleation sites in iron and low-alloy steels. He has received numerous awards including: The Energy Secretary's Award for the Mars Rover Radioisotope Power Systems Team (2022) and the NASA Group Achievement Award for the Cassini (Saturn) RTG team (1999); Clarivate Highly Cited Researcher Award (2021); Eminent Scholar Visitation Award, University of New South Wales (2019); Invitation Fellowship of the Japan Society for Promotion of Science (2013); Fellow TMS (2010) and ASM (1999); Humboldt Prize (2000); Sustained Outstanding Research Award, Basic Energy Sciences, U.S. Department of Energy (1998); Ranked 8th in the world by ISI (Web of Science) among highly cited materials scientists (1995); and Beuhler Award for best paper in the *Materials Characterization* journal (1995).

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**QUESTIONS?**  
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