

FEBRUARY 14-18 DOWNTOWN NASHVILLE, TENNESSEE MUSIC CITY CENTER

Connecting the Global Minerals, Metals, and Materials Community.



Material Design Approaches and Experiences IV

This symposium is a continuation of three previous symposia on the same subject held at TMS annual meetings in 2001, 2006, and 2012. In this regard, it serves as a periodic review of the state-of-the-art development on the subject. Like its predecessors, the symposium will bring together materials scientists and engineers who have developed successful alloys (that have found real applications) with those who are developing new materials design methodologies/tools. On the one hand, alloy developers from the industry will illustrate how some of the most successful alloys were developed, what tools were used, what property balance and trade-off were considered, and what tests were performed to bring the alloys to successful implementations. On the other hand, the methodology/tool developers will demonstrate what new tools have been developed and how these tools can be applied to alloy design. The interaction among the groups will bridge the gaps between them, thus accelerating the transition of new design tools to alloy developers. Covering past experiences and new approaches— both experimental and computational, the symposium may also help identify some critical areas/needs in new methodologies/tools for the community to focus upon. One particular area of interest of this symposium is the age-old compromise between strength and ductility, and ways to optimize both.

Organizers include:

Akane Suzuki, GE Global Research (USA)

Ji-Cheng Zhao, Ohio State University (USA)

Michael G Fahrmann, Haynes International (USA)

Qiang Charles Feng, University of Science & Technology Beijing (China)