

Industry Presenters

We are pleased to announce that ACRC members, faculty and students, along with associates, will be presenting at [TMS 2025 Annual Meeting & Exhibition](#), as well as at [AFS CastExpo 2025](#).

TMS - March 23 -27, 2025 in Las Vega

- Keynote Speaker, Alan Luo - **"Aluminum Alloy Development and Manufacturing Processes for Sustainable Transportation Applications"**
- Jianyue Zhang, Jiashi Miao, Alan Luo, Hongyi Zhan, Jianfeng Wang - **"Effect of Cooling Rate on the Solidification Behavior of AMZ211-Y/Ca Alloys"**
- Raquel Fierro Jaime, Hélder Puga, Diran Apelian - **"Ultrasonic Treatment of Aluminum Alloys for Microstructural Modification"**
- Shrivatsav Shankar, Carl Soderhjelm, S. Wiesner, Diran Apelian - **"An Alternative Route to Upcycling Low Value Post Consumer Al Scrap (Twitch) Without Sortation"**
- Sakshi Bajpai, Xin Wang, Bijun Xie, Calvin H. Belcher, Benjamin E. MacDonald, Julia Ivanisenko, Yu Zhong, Penghui Cao, Enrique J. Lavernia, Diran Apelian - **"Role of Interfaces in Phase Decomposition of CoCrNi Alloy"**
- Wanjuan Zou, Diran Apelian, Timothy J. Rupert, Xiaoqing Pan, Penghui Cao - **"Dislocation Pattern and Motion Mechanisms of Twist Grain Boundaries in High-Entropy Alloys"**
- Janet Meier, Jiashi Miao, Lisa DeBeer-Schmitt, Jan Ilavsky, Alan Luo - **"Effects of Zn and Ca Microalloying on β -Series Precipitation in Mg-Nd Alloys a Comparison of Electron Microscopy and Small-Angle Scattering Techniques"**
- Bo Zhao, Jiashi Miao, Alan Luo, Shuaihang Pan - **"Phase Transformation in Al-Cu-Sc Alloy and Its Impact on Corrosion Performance"**

- Austin Tiley, Chia-Yu Chang, Emily Holt, Yi Song, John Chen, Ben DiMarco, John Middendorf, Alan Luo - "**Process Development and Microstructure Evaluation of Additive Manufacturing of Silicon Components**"
- Alan Luo, Renhai Shi, Jianyue Zhang - "**Designing Lightweight Alloys Based on CALPHAD Modeling and Machine Learning**"

CastExpo - April 12 - 15, 2025 in Atlanta

- Cheolmin Ahn, Carl Söderhjelm, Diran Apelian - "**Development of a Self-regulating Permanent Molds Incorporating Phase Change Materials (PCMs)**"
 - Kentaro Lunn, Zac Han, Carl Söderhjelm, Diran Apelian, Jovid Rakhmonov, Hsin Wang - "**Conductivity and Structural Changes in Al-Ni Alloys with Varying Ni Content**"
 - Jianyue Zhang, Qigui Wang, Alan Luo - "**The Role of Intermetallic Phases in Hot Tearing of Multicomponent Aluminum Alloys**"
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