



Symposium Summary

2012 Magnesium Technology

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The 2012 Magnesium Technology symposium, a yearly meeting sponsored by the TMS Light Metals Division Magnesium Committee, continued its growth and success in 2012. This symposium is one of the largest yearly gatherings of magnesium specialists in the world. Papers are presented on all aspects of magnesium technology, ranging from primary production to applications and recycling, as well as from basic research to industrialization. The symposium consisted of 141 presentations in oral or poster format from 20 different countries, with the largest representation coming from the USA (48 abstracts), Canada (21 abstracts) and China (21 abstracts). The symposium was also supplemented by a “mini-symposium” on Phase Transformation and Deformation in Magnesium, which included 18 more invited-only abstracts from top researchers in the community.

The plenary session of the symposium highlighted the latest advances in magnesium science and application. Presentations on computational design of magnesium alloys from phase equilibria (Alan Luo, General Motors) and for ab-initio design of corrosion resistant alloys (Santanu Chaudhuri, Washington State University) were well-attended. Donald Shih, Boeing Corporation, shared his thoughts on the application of magnesium alloys in the aerospace industry, forecasted as an area of rapid growth in light of rising fuel costs. A winner of the prestigious 2012 TMS Brimacombe Medal, Paul Krajewski, General Motors, lectured on grain evolution during high-temperature necking, which has direct implications on the formability of magnesium alloys for sheet metal processing. Also related to sheet metal processing were talks by David Randman, Magnesium Elektron–North America, on production of shear-rolled magnesium sheet, and Yuri Hovanski, Pacific Northwest National Laboratory, who spoke on the solid state joining of magnesium alloys to steel.

--Submitted by Suveen Mathaudhu