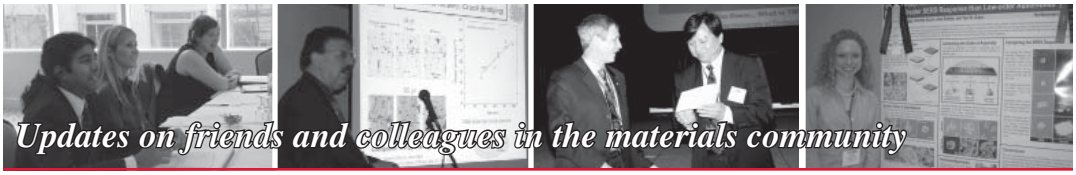

JOM Authors Recognized for Excellence at TMS 2011 Annual Meeting

Congratulations to the authors of four papers published in *JOM* who received industry awards presented at various events held during the TMS 2011 Annual Meeting & Exhibition in March. TMS members can freely access these and other papers online at the *JOM* home page at *http://www.tms.org/pubs/journals/JOM/JOMhome.aspx*, Along with this year's winners, *JOM* thanks and congratulates the many other authors and advisors whose contributions to TMS were honored at the Annual Meeting. The awards and honorees are:

Structural Materials Division (SMD) Chair Dennis Dimiduk presents the division's *JOM* Best Paper Award to Rebecca A. MacKay.

Structural Materials Division Best Paper Award: Rebecca A. MacKay, Timothy P. Gabb, James L. Smialek, and Michael V. Nathal, for "A New Approach of Designing Superalloys for Low Density," published in January 2010. The authors present an innovative alloying strategy to develop single-crystal superalloys for turbine blade applications. The alloy design uses molybdenum as the main solid solution strengthener. The approach achieved alloy density reductions, high-temperature creep resistance, microstructural stability, and cyclic oxidation resistance.

John A.S. Green and Subodh Das receive their Light Metals Division *JOM* Best Paper Awards from Chair John Hryn.

Light Metals Division *JOM* Best Paper Award: Subodh K. Das and John A.S. Green, "Aluminum Industry and Climate Change—Assessment and Responses," published in February 2010. Taking an integrated, industry-wide look at the recovery of material from a variety of sources, this paper presents a series of implementable ideas to design and commercialize recycle-friendly aluminum alloys for key market sectors.

Left to right: Extraction & Processing Division (EPD) Chair Tom Battle presents the EPD Science Award to Dimitrios Filippou and Guillaume Hudon.

Extraction & Processing Division Science Award: Dimitrios Filippou and Guillaume Hudon, for "Iron Removal and Recovery in the Titanium Dioxide Feedstock and Pigment Industries, " published in October 2009. This paper provides an overview of current and emerging approaches to removing iron—and in some cases recovering it as a valuable product—in the titanium feedstock and pigment industries.

Brajendra Mishra, left, president elect designate of the American Institute of Mining, Metallurgical, and Petroleum Engineers (AIME), presents the Rossiter W. Raymond Memorial Award to Markus Buehler.

AIME Rossiter W. Raymond Memorial Award: Markus Buehler, "Failure of Alzheimer's Aβ(1-40) Amyloid Nanofibrils under Compressive Loading," Raffaella Paparcone and Markus J. Buehler, published in April 2010. Alzheimer's disease is caused by the formation of amyloids, strong protein build-ups in brain tissue. Amyloid filaments have high strength and resistance, suggesting their potential as new materials in nanotechnology. This paper, using computer simulations, describes the detailed mechanism of how a single amyloid fibril fails under mechanical loading conditions.

AIME Online Library Adds New Historical Documents for Member Access

AIME (American Institute of Mining, Metallurgical, and Petroleum Engineers) has added nearly 200 new historical technical documents to its digital library, accessible to TMS members through the TMS Members Only home page. New offerings include AIME Technical Publications and Contributions from 1920–1940, *Bulletins of the AIME*—the forerunner of *Mining and Metallurgy* magazine—dating back to 1905, *Journal of Metals* 1949–1960, and *Electric Furnace, Ironmaking*, and *Open Hearth* proceedings volumes from before 1980. A focal point of the digital library remains archived content from *AIME Transactions*, featuring 247 volumes of papers published between 1871 and 1970. All content in this archival resource is presented in fully text-searchable PDF format.

Meet a Member: Robert Gansert Sails On

By Lynne Robinson

There is magic in the water every time Robert Gansert launches his boat from its dock in Marina del Rey, California.

"I don't have a single favorite memory about sailing—there are so many," said the president and chief scientist of Advanced Materials & Technology Services, Inc. "Every time I think of it, I picture my daughter fishing off the dock or chasing crabs with her net as we prepare to set off. I think about spotting sea lions, pelicans or dolphins, and seeing the beautiful beaches during our cruise towards Malibu. On the sail back, I anticipate being immersed in dozens of beautiful sailboats flying their colorful spinnakers filled with wind, as everyone cruises back into the marina, reflecting on the beautiful day."

Gansert began weaving his mosaic of sailing memories as a boy, when his parents spent every weekend in the summer boating with their five children on the Finger Lakes in upstate New York. When his work as an engineer for the U.S. Department of Defense took him to Florida as an adult, he competed in regattas on the waters of the Gulf Coast. "There can be marked variations in the sailing in different waters, dependant on time of year, weather patterns and sea conditions, air and water temperatures, and many other factors," he said. "In my sails, for instance, the Gulf Coast tended to have warmer waters, smoother seas, and milder winds than the cooler waters, rougher seas, and higher winds of the Pacific Ocean." Starting off in a small craft to master basic sailing skills, and then working up to larger boats to learn the various mechanical, electrical, and navigational systems is Gansert's recommended course of action for anyone who might be interested in sailing as a pastime. "Having a solid foundation in sailing enables you to adapt techniques to the conditions in various waters, from the Atlantic to the Gulf Coast to the Pacific Ocean," he said.

Gansert's wife, Jennifer, also comes from a sailing background, having crewed on 30-foot sailboats with her mother before they met. For the last 15 years, they have shared their lives and love of the sport, learning about and experiencing a wide variety of boats in the sailing clubs that they have joined. He notes that handing down the boating tradition to his seven-year-old daughter, Hannah, is a particular joy. "She has sailed with us since her birth. It's a way of life for my family," he said, adding that Hannah is not just a passenger and has already learned to help adjust the sails and navigate. "It's a wonderful way to spend time together and experience the beauty of nature."

Gansert said he also appreciates sailing from the vantage point of being a materials scientist and engineer. "There is a tremendous amount of engineering involved with designing a sailboat, encompassing everything from naval architecture to structural engineering to aerodynamics," he said. "Numerous components are also constructed of high tech materials designed for strength, speed, corrosion resistance, and numerous other engineering considerations. It's truly a mix of art and engineering."

The Gansert family currently enjoys their days on the water in their Newport Sport 27, although Gansert notes that they are seeking a larger sailboat for longer duration ocean sailing and to more comfortably accommodate overnight stays. While a sail around the world sounds exciting, Gansert said he is more than satisfied with watching Hannah grow up on their sailing expeditions along the Southern California coast, with the possibility of chartering a boat in the Caribbean or Mediterranean thrown in for good measure.

"Sailing is a wonderful mental and physical escape from the typical demands of work and life," said Gansert. "It's just a great feeling to have the wind and mist in your face, sun warming your body, boat heeling over, and running several knots with the occasional wave coming over the bow. There's nothing else like it."

Robert Gansert and his daughter, Hannah, enjoy another beautiful day on the water.

Each month, *JOM* profiles a TMS member and his or her activities both in and out of the realm of materials science and engineering. To suggest a candidate for this feature, contact Maureen Byko, *JOM* editor, at *mbyko@tms.org.*