



Updates on friends and colleagues in the materials community

TMS Expands Benefits with e-Mentoring Opportunities, OneMine Access

TMS members will have access to two new member benefits at the start of the 2010 membership year. The new benefits—OneMine and the e-Mentoring program—add to the Society's extensive list of benefits designed to help TMS members advance their professional careers.

A collective effort among multiple societies, OneMine is a database of technical documents, conference papers, articles, pre-prints, late papers, and peer-reviewed journals that focus on the mining, mineral, and exploration sciences. Participating societies are: TMS, The American Institute of Mining, Metallurgical, and Petroleum Engineers (AIME); the International Marine Minerals Society (IMMS); the National Institute for Occupational Safety and Health (NIOSH); the Southern African Institute of Mining and Metallurgy (SAIMM); and the Society for Mining, Metallurgy, and Exploration (SME).

OneMine will enable TMS members who subscribe to this service to electronically access journals and papers that until recently have been available only in printed form. In addition, the database gives members a chance to enhance their professional libraries. TMS members can purchase an annual OneMine subscription for \$50. For more information on this benefit, visit www.OneMine.org.

The TMS e-Mentoring program offers members easily accessible, online career advice. The e-Mentoring program enables any member to ask career questions, get a perspective on day-to-day workplace issues, and learn about different career options.

Volunteering to serve as mentors are Thomas Battle, a member of the TMS Board of Directors and senior metallurgist for Midrex Technologies; Chandler Becker, a materials research engineer at the National Institute of Standards and Technologies (NIST); Jeffrey Fer-

gus, an associate professor at Auburn University; and Robert D. Shull, 2007 TMS president and a group leader at NIST. All are longtime members of TMS and leaders in their professions.

Participating in the e-Mentoring program is simple. Located on the Members Only home page, a link to the program can be found under the "Career Resources" section. Once you have reviewed the profiles of the four mentors and chosen who is the best fit for your professional needs, type your question into the "Question" box located under the mentors' profiles. An answer to your question will be e-mailed back to you in a timely manner.

In addition to the e-mail response, all questions submitted to the mentors will be posted in the TMS Digital Resource Center; however, all participants' identities will remain completely confidential. To view previously asked questions, click on the "Mentor Q&A" tab at the top of the home page.

Akihisa Inoue Receives the 2010 Acta Materialia Gold Medal Award

The Acta Materialia, Inc., Board of Governors named Akihisa Inoue, president of Tohoku University in Sendai, Japan, the winner of the Gold Medal Award. Inoue joined TMS in 1993.



The Gold Medal Award recognizes an individual's ability and leadership in materials research. Each year, the Board of Governors of Acta Materialia, Inc., recognizes individuals who have contributed to materials science through research and to the understanding of materials technology and society through their careers, and/or made a major impact on society through materials technology.

Inoue earned a B.S. degree from Himeji Institute of Technology in Japan and an M.S. degree from Tohoku University, both in materials science and engineering. In 1975, he earned

a Ph.D. in materials science from the Graduate School of Engineering at Tohoku University.

Prior to being appointed president of Tohoku University in 2006, Inoue was a research staff member at the university's Institute for Materials Research, first as a research associate, then an associate professor and later a professor. From 2000–2006, he served as director of the institute and from 2005–2006, as vice president of the university.

Inoue's research areas include rapidly solidified amorphous alloys; contributions in nanocrystalline alloys with improved mechanical and soft magnetic properties and manufacturability for their engineering applications; and studies of scientifically interesting and technologically relevant structural, chemical, electronic, and magnetic properties of glassy metallic materials produced by slow cooling methods. In addition, he pioneered a novel materials science and engineering field of

bulk metallic glasses (BMGs) through systematic development based on the finding of an empirical component rule, which has enabled the discovery of several hundreds of multi-component BMGs, the developments of various bulk glassy alloys with functional properties and viscous flow deformability, and the realization of their applications.

Inoue has received numerous awards including the Japan Academy Prize, Kelly Lecture, Japan Prime Minister Award, James C. McGroddy Prize for New Materials, and the Dr. Morris Traverse Lecture. He has been recognized by Thomson ISI Web of Knowledge, which tracks journal citations on the Web, as first in the worldwide ranking of highly cited authors publishing scientific papers in materials science and engineering journals for the past 11 years. He will receive the Acta Materialia Gold Medal Award in March 2010 at Tohoku University.



TMS Member Profiles

Meet a Member: Thomas Logue: Taking the Lead on a Carbon Fiber Bike

By Francine Garrone

Thomas Logue was content with being a couch potato the summer before his senior year of high school—until one day in early July 2005 while channel surfing he landed on the Le Tour de France. He had heard of the annual cycling event and knew who Lance Armstrong was, but never saw the nearly month-long race live. “It was awesome to see cyclists climbing snow covered mountains and sprinting shoulder-to-shoulder,” Logue said. “The whole rest of July I sat riveted to the TV every morning watching Lance win his seventh consecutive Le Tour de France title.”

Following the conclusion of the race, Logue, an undergraduate student at California Polytechnic State University (Cal Poly) and president of the Cal Poly Materials Engineering Student Society that heads the university’s Material Advantage chapter, had to try it. “I asked around and found a friend of a friend with an old steel frame bike,” he said. “I was amazed at how fast the bike was compared to mountain bikes. It seemed like it wanted to rocket out

from underneath me with every pedal stroke.” Logue rode local bike paths a few times a month before leaving his hometown of Los Gatos, California, to attend college in San Luis Obispo. “My freshman year of college I had an amazing time but it felt like something was missing,” he said. “One of the guys in my dorm was on the school cycling team and had two beautiful road bikes. Before the summer started I decided I would buy myself a new carbon fiber road bike and just do it.”

Logue spent his sophomore year training on the hills of San Luis Obispo and joined the California Polytechnic Wheelmen cycling team his junior year. The second fastest sprinter on the team, Logue takes the role of “lead man out.” His strategy is to push his way into a good position in order to ride as fast as possible right before the finish line, launching his teammate into a good position to outrace the other teams’ sprinters during the last 300 yards of the race. “I put out all my energy for my teammates so they and the team can win,” he said. “Helping

a teammate win is awesome because it makes me feel like part of something bigger than just myself.”

During the 2009 road season, Logue helped the Wheelmen place second in their conference. “One great thing about cycling is the team aspect. A lot of people see cycling and think it’s one man out for himself,” he said. “This couldn’t be farther from the truth. For example, drafting (riding closely behind another rider, which creates an air pocket) is so effective in cycling that teammates will sacrifice themselves for each other by sitting at the front while a teammate conserves energy.”

Logue has incorporated his materials science and engineering background into cycling. Currently, he rides a carbon fiber bike with the lightest brakes, shifters, and derailleur (the mechanism that moves the chain from one gear to another) on the market. These parts are made not only from carbon fiber, but also aluminum and titanium.

Over the past year Logue has not been able to compete in non-collegiate races due to breaking his collar bone in a cycling crash during the last race of the 2009 season. However, he continues to train, cycling upwards of 300 miles a week. “Cycling is amazing because you get out on the open road and just get lost in yourself,” he said. “To stay motivated during these rides I imagine myself leading the pack in the Giro d’Italia (Tour of Italy) or going on a solo breakaway on the slopes of Alpe d’Huez (one of the main mountains in the Le Tour de France) and pretty soon I’m riding next to Lance Armstrong, helping him win his eighth Le Tour de France.”

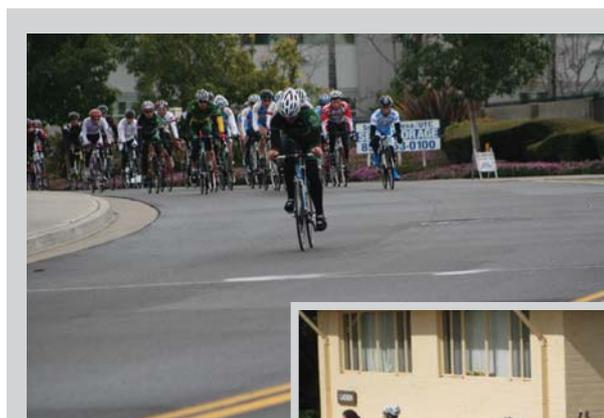


Figure 1: Thomas Logue (center, green shirt) leads a road race during the 2008 cycling season at California Polytechnic University.



Figure 2: Thomas Logue sprints ahead of another cyclist during a road race at California Polytechnic University.

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