

Member News



Updates on friends and colleagues in the materials community

Jeffrey Wadsworth Receives *Acta Materialia* Materials and Society Award



Jeffrey Wadsworth

Jeffrey Wadsworth, president and chief executive officer of Battelle Memorial Institute, has been named the winner of the 2013 *Acta Materialia* Materials and Society Award. A 2000 TMS Fellow, Wadsworth was selected by an international panel of judges appointed by the Board of Governors of *Acta Materialia*, Inc. and will receive the award at the TMS 2013 Annual Meeting and Exhibition, March 3–7, in San Antonio,

Texas. (Look in future issues of *JOM* for details on the special symposium honoring Wadsworth at TMS2013.)

Wadsworth has authored or co-authored nearly 300 scientific papers and one book, and has been granted four U.S. patents. Among his many honors and awards, he was elected a member of the U.S. National Academy of Engineering and the Chinese Academy of Engineering. He is recognized internationally for his technical contributions in the fields of superplasticity of metals and ceramics, refractory metals, high-temperature materials, and Damascus and other ancient steels, as well as for leadership in national

defense and science programs. He was educated at Sheffield University in England, where he studied metallurgy, earning both a bachelor's degree and Ph.D. He was also awarded a Doctor of Metallurgy degree by Sheffield for his published work and received the highest recognition conferred by the university, an honorary Doctor of Engineering degree.

The *Acta Materialia* Award in Materials and Society recognizes outstanding contributions to understanding the relations between materials technology and society, and/or contributions to materials technology that have had a major impact on society.

Ian Donaldson Named APMI Fellow

Ian Donaldson, director, Research & Development North America and Materials Engineering, GKN Sinter Metals LLC, was inducted as a 2012 Fellow of APMI International in June. APMI International, the professional society for the powder metallurgy industry, established the Fellow Award to recognize APMI members for their

significant contributions to the society and high level of expertise in the technology, practice or business of powder metallurgy. In announcing Donaldson's selection, APMI noted his 30 years of experience and his 25 years of active membership with APMI, including his current role as a member of the society's Board of Directors.

A Tribute to Neil B. Bryson

Neil Bryson recently succumbed to mesothelioma after a year-long illness. He received his metallurgical and mechanical engineering degrees from the University of Toronto. He was employed by Alcan for more than 30 years, and was head of casting at the Alcan Research and Development Center in Kingston, Ontario. He introduced his patented "pulsed water" technique, which provided a closer element of control for cooling direct chill aluminum ingot casting operations, and it remains a mainstay in many plants.

A frequent author and presenter, he organized and chaired the Cast Shop Technology symposium at the TMS 1990 Annual Meeting, which consisted of 49 papers and seven sessions. His long TMS meeting attendance is attested by a post-presentation floor comment he made to an author, "I heard that point at a TMS meeting 35 years ago."

Always a gentleman of the real kind, he will be missed by his colleagues.

Submitted by George Binczewski, technical advisor, S.C. Systems.

REDESIGNED SUPERALLOYS RESOURCE MAKES 40 YEARS OF SCHOLARSHIP EASILY ACCESSIBLE

More than 1000 technical articles documenting critical developments in superalloy metallurgy are now available in an easily searchable, online database housed on the TMS website. Accessed at www.tms.org/superalloys, the updated Superalloys Conference Proceedings Archive includes content from the Superalloys International Symposium proceedings (1968–2008) and the Superalloys 718, 625, 706 and Various Derivatives proceedings (1989–2005). These conferences are considered premier forums for superalloy innovation and their proceedings have formed an important reference library on these topics.

The new archive features an upgraded search capability that enables users to browse by volume, or search by author, title, keyword(s), proceedings title or year, or title keyword. All articles also have been assigned Digital Object Identifiers (DOIs) to enhance the archive's accessibility and convenience for researchers seeking citable information. It was made possible with the support of the International Symposium on Superalloys Committee.

IN MEMORY OF MAURICE E. SHANK

TMS extends its condolences to the family, friends, and colleagues of Maurice E. (Bud) Shank, who passed away in February at the age of 90. A member since 1948, he was inducted as a TMS Fellow in 1969. He received his bachelor's degree from Carnegie Mellon University and his D.Sc. from the Massachusetts Institute of Technology, where he also served as associate professor of Mechanical Engineering. He then worked for Pratt & Whitney until his retirement as vice president of Pratt & Whitney of China, Inc.



TMS Member Profiles

Meet a Member: Ainissa Ramirez Brings Big Science to the Small Screen

By Lynne Robinson

Ainissa Ramirez’s mission is to make young people love science—three minutes at a time.

Ramirez is a self-described “science evangelist” affiliated with Yale University—a role that she has embraced after years of developing science outreach programs. “What I’ve learned from this journey is that there is more than one way to be a scientist and have impact,” she said. “I initially thought that working in the lab was the only way to legitimately move the science agenda. In this age of style over content, we need scientists who can communicate science in a down-to-earth way, too.”

Brief, educational YouTube videos, produced in conjunction with Yale, are Ramirez’s vehicles of choice to help the public make the connection between science and everyday life. Her first video series, *Material Marvels* (www.materialmarvels.com) highlights the unique properties of both the common and cutting edge through often dramatic demonstrations. “I chose to focus mostly on materials, particularly smart materials, because they have unusual properties that are not well known to the general public,” said

Ramirez. In one segment, for example, Ramirez heats a piece of space shuttle tile until red-hot with a blowtorch and then picks it up with her bare hands without getting burned. “It’s a huge attention-grabber,” she said.

Ramirez has also recently launched *Science Xplained*, a YouTube video series that examines current events from a science perspective. Topics have included the physics of football, produced to coincide with the Superbowl, and a scientific explanation for why the *Titanic* sank, released during the centennial observation of that disaster. “Since these topics are already circulating in the national dialogue, why not have another angle to them—a science angle,” Ramirez said.

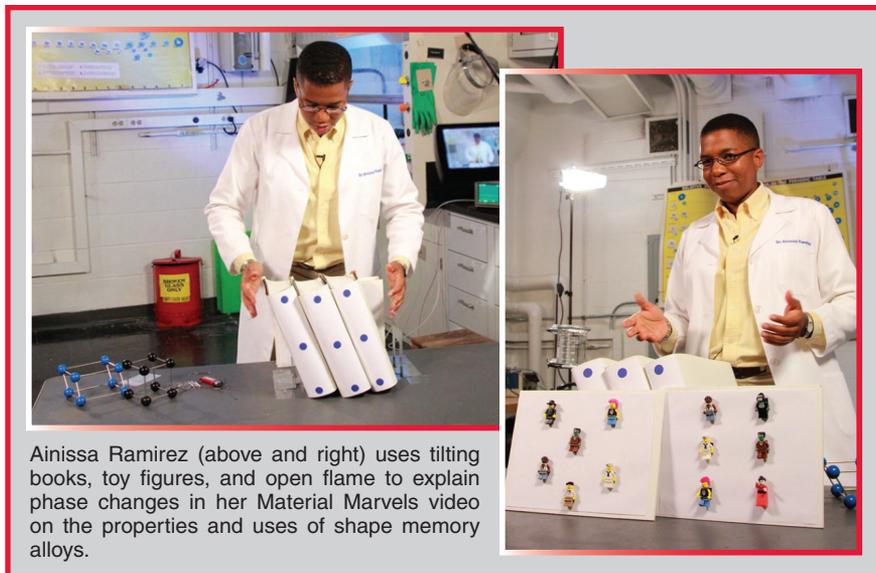
In addition to posting her videos on the Yale website, YouTube, and iTunes, Ramirez has partnered with HowStuffWorks and has occasionally had a video profiled on the *Scientific American* and Nanoscale Informal Science Education (NISE) Network websites.

Long-term, Ramirez hopes to be a science presenter in the spirit of Bill Nye and Neil Tyson, both of whom have established reputations as science

experts for mass audiences of all ages. Through her videos, as well as books, opinion editorials, and public speaking focused on engaging the general public with the scientific world, she is building a body of work and content to achieve that goal. CNN regularly features her for scientific comment, and she is exploring similar opportunities with other news outlets. All of these efforts, she hopes, will culminate in her being able to create a “science think tank” that offers science programming, advocacy, learning materials, and other media “so that the general public feels they have a reliable and fun source for science learning.”

Ramirez noted that her experiences have caused her to rethink the teaching approaches that she honed while an associate professor of mechanical engineering at Yale. “We professors expect viewers to listen and not move, but in a situation where people can leave with a click of a button, you have to work harder to engage your audience,” she said. “In my videos, I used to introduce the science idea, explain it, show a demonstration, and then wrap up. A veteran broadcaster told me that I had it upside down and needed to do the demonstration in the beginning to get people’s attention.”

Brevity is likewise key, Ramirez has discovered, which is why her videos generally run only about three minutes in length. “I’ve also learned the importance of teaching science through story,” she said. “You cannot just state facts about something. You’ve got to make the material relevant to audiences and link it to common everyday experience. I think a lot of scientists get this wrong. Science equals story. Period.”



Ainissa Ramirez (above and right) uses tilting books, toy figures, and open flame to explain phase changes in her *Material Marvels* video on the properties and uses of shape memory alloys.

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 Lynne Robinson at lrobinson@tms.org.