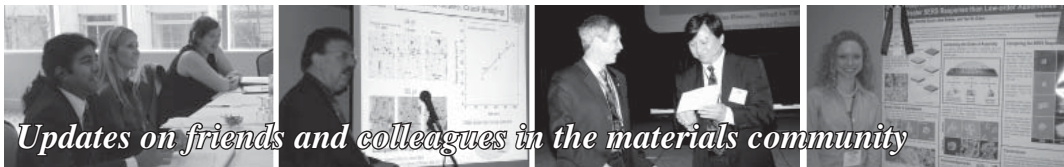


## Member News



*Updates on friends and colleagues in the materials community*

### TMS Recognizes Lifetime Members

TMS thanks and recognizes the following individuals for showing their commitment to the society by becoming Lifetime Members. Said James J. Robinson, TMS deputy executive director, “While life membership imbues the holder with neither superpowers nor extraordinary privileges, it is nonetheless a designation of extraordinary significance. It indicates that this member of the minerals, metals, and materials community sees TMS as an essential partner, not just for the week of a conference or the term of service on a committee,

but for an entire career and beyond. I cannot imagine a more impressive statement that an individual can make about the indispensability of TMS in one’s life, professionally and personally.”

For a one-time fee, those selected for consideration as Lifetime Members have access to all TMS member benefits for the duration of their career and beyond. For additional information, go to [tms.org/society/PDFs/membership\\_application\\_lifetime.pdf](http://tms.org/society/PDFs/membership_application_lifetime.pdf).

#### Current TMS Lifetime Members:

Tarundeep Arora, Sterlite Ind. (I) Limited (2007)  
Chandra Baid, Konkola Copper Mines Plc. (2008)  
Carl Boehlert, Michigan State University (1997)  
Thomas Caton (1988)  
Siu-wai Chan (1990)  
Boyd Davis (1999)  
Michael Dunlavy (1997)  
Christopher Elyea (1992)  
Michael Falk (2001)  
Ivan Frantsenyuk, Novolipetsk Iron & Steel Works (1991)  
Harold Frost, Dartmouth College (1973)  
Tadashi Furuhashi, Tohoku University (1994)  
Akio Fuwa (1970)  
Charles-André Gandin, ARMINES CEMEF (1994)  
Martha Goodway, Smithsonian Museum Conservation Institute (1973)  
Lowy Gunnewiek, Hatch Limited (2008)  
Kevin Hemker (1991)  
Kenneth Higbie, (1957)  
Hanchen Huang, University of Connecticut (2009)  
Robert Hyers, University of Massachusetts (1994)  
Kallarackel Jacob, Indian Institute of Science (1978)  
George Kaptay (1996)  
Richard Karnesky, Sandia National Laboratories (2003)  
Dennis Keiser, Idaho National Lab (1992)  
Shae Kim, Korea Institution of Industrial Technology (2000)  
Madangopal Krishnan, Bhabha Atomic Research Centre (2007)  
Jie Li, Central South University (2006)  
Ju Li (2003)  
Qizhen Li, University of Nevada Reno (2006)  
Saiyi Li, Central South University (2005)  
Michele Manuel, University of Florida (2001)  
Michael Moats, University of Utah (2003)

P. Mony (2001)  
Wes Moss, TRD-USA (1999)  
Jagdish Narayan, North Carolina State University (1973)  
John Nychka, University of Alberta (2006)  
Oladele Ogunseitan, University of California, Irvine (2005)  
EueJae Ri (1982)  
Ravi Rungta (1991)  
Mark Schaffer (2005)  
Joseph Strauss, HJE Corporation Incorporated (2000)  
Chun-Hsi Su, National Taipei University of Technology (2007)  
Subra Suresh, MIT (1983)  
Nathan Trepal (2001)  
Chad Tucker, Scepter Incorporated (2006)  
Jalaiah Unnam (1984)  
Timothy Weihs, Johns Hopkins University (2009)  
Kaiming Wu, Wuhan University of Science & Technology (2005)  
Fuqian Yang, University of Kentucky (1995)  
Kyung-woo Yi, Seoul National University (1997)  
Natsuki Yoneyama, IHI (2005)  
Tong-Yi Zhang, Hong Kong University of Science & Technology (2005)  
Xinghang Zhang, Texas A & M University (2000)  
Wei Zhou, Nanyang Technological University (2002)  
Yuntian Zhu, North Carolina State University (1994)

### TMS Annual Business Meeting Notice

The Minerals, Metals, & Materials Society, Inc. (TMS) in accordance with its bylaws (Article IV, Section 4, Paragraph A), hereby announces that it will hold its 2012 Annual Business Meeting On Wednesday, March 14th, 2012 from 8:00–8:30 a.m. in the Lark Room of the Swan Hotel (Swan & Dolphin Resort), Orlando, Florida. All members of TMS are encouraged to attend this meeting.



## Meet a Member: De Nora Prize Winners Pioneer Electrometallurgical Processes for Clean Metal Production

By Lynne Robinson

**Editor's Note:** The following has been excerpted from an article posted on Materials Technology @ TMS at <http://materialstechnology.tms.org/mas/article.aspx?articleID=4401>.

The name Vittorio de Nora is synonymous with excellence in innovation and entrepreneurship of electrochemistry-based materials science technologies. Seeking to apply his technology to aluminum smelting, de Nora also devoted much of his research to eliminating pollution from the use of carbon anodes and improving energy efficiency with more flexible designs for inert anodes in electrochemical cells.

In the year celebrating the centennial of de Nora's birth, it seems fitting that the winners of the 2012 Vittorio de Nora Prize for Environmental Improvements in Metallurgical Industries have focused their talents on the technological advancement of breakthrough extraction processes based on electrolysis. Antoine Allanore, project leader, D.R. Sadoway Group, Massachusetts Institute of Technology (MIT), and Jim Yurko, founder, Electrolytic Research Corporation, and principal technologist, Materion Corporation, will present their award-winning technology in their de Nora Award lecture, "Development of Electrometallurgical

Processes for 21<sup>st</sup> Century Metal Extraction," at noon, Tuesday, March 13, at the TMS 2012 Annual Meeting and Exhibition in Orlando, Florida. Both Yurko and Allanore are past TMS Extraction & Processing Division Young Leader Professional Development Award winners.

It was through a common connection with the research of Donald R. Sadoway, MIT's John F. Elliott Professor of Materials Chemistry, that Yurko and Allanore began their current alliance. Yurko had been working with Sadoway since 2005, forming the Electrolytic Research Corporation with him in 2007.

"Jim has metallurgical, commercial, and industrialization experience which complements my electrochemist and process engineer background," said Allanore. "We met when I got involved with molten oxide electrolysis (MOE) for iron production as a project leader with Professor Sadoway's group at MIT. Jim was involved in the commercialization of the technology for other metals, and we quickly spent a lot of time sharing our ideas on the potential application of the technology."

"It didn't take long for me to realize that Antoine was a very talented re-



Allanore's and Yurko's experimental electrolysis cell at 1,600°C, with oxygen bubbles escaping from the anode (upper rod) through the molten oxide electrolyte. The other rod is the cathode on which the molten metal is produced.

searcher who had similar interests and a passion to advance the MOE technology championed by Don Sadoway," said Yurko. "We both want to see this technology make the impact it's capable of in the materials world."

Winning the de Nora Prize marks a step in that direction by providing funds to advance the commercialization of the MOE process that the two scientists are advocating for the production of an array of metals. "As materials scientists, we are in a great position to work on technologies that have the potential to dramatically impact society," said Yurko. "Working on extraction processes at temperatures ranging from 1,400–1,700°C is a total rush, but when you realize the technology you're working on could make metal using much less energy and with lower emissions, it's added motivation. This is a rewarding career path that I wouldn't trade for anything else."

For additional information on the Vittorio de Nora Prize, established by the TMS Foundation through an endowment from the de Nora family, go to [energy.tms.org/initiatives/VDNP.aspx](http://energy.tms.org/initiatives/VDNP.aspx).

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](mailto:mbyko@tms.org).



2012 Vittorio de Nora Prize winners Antoine Allanore (left) and Jim Yurko (right) with their mentor, Donald Sadoway (center), whose research inspired their award-winning technology.