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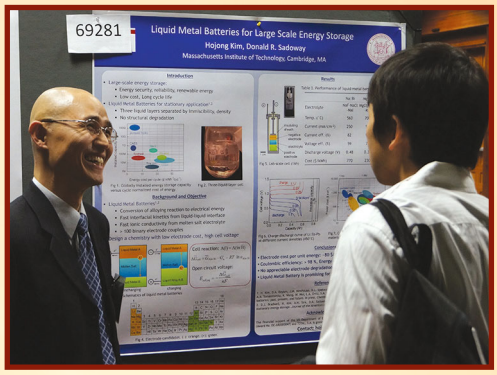
The Promise of the Future: Meet the 2015 TMS Young Leaders Professional Development Awardees

Kaitlin McMahon

For many early-career TMS members, receiving a Young Leaders Professional Development Award, funded by the TMS Foundation, is a significant and influential professional milestone. Financial support to attend the TMS annual meeting is only the beginning of the opportunities opened to them through this accomplishment. Awardees also have access to a variety of leadership activities, including division council meetings, luncheon lectures, and a TMS Board of Directors meeting. These experiences enable awardees to make important contacts with prominent TMS members, while also positioning them as active volunteer leaders in TMS and their professional community.

If you are attending the TMS 2015 Annual Meeting & Exhibition (TMS2015), March 15–19, in Orlando, Florida, make a point of personally congratulating the 2015 Young Leaders Awardees introduced on the following pages. Even if you can't make the meeting, be sure to add these accomplished individuals to your professional network as they progress in their promising, successful careers.

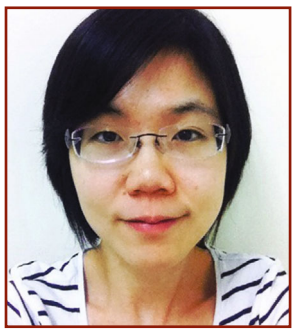


2015 TMS Young Leader Professional Development Award Winners

FUNCTIONAL MATERIALS DIVISION (FORMERLY EMPMD)

Ritesh Sachan

Ziqi Sun



Hsin-Jay Wu

Wei Xiong

Ritesh Sachan

Ritesh Sachan is a postdoctoral researcher at Oak Ridge National Laboratory. He earned his undergraduate degree from the Indian Institute of Technology, Varanasi, his master's in material science and engineering from the Korea Institute of Science and Technology, and his Ph.D. in materials science and engineering from the University of Tennessee, Knoxville. His current research interests include the study of atomic and electronic structures of ion-irradiated complex oxides and carbides to improve radiation resistance of materials in nuclear and power electronics applications. "This award will be extremely beneficial in advancing my career," said Sachan. "TMS membership has given me the opportunity to grow a substantial professional network and showcase my research work to the science community. As a member of the TMS community for the past six years, I have realized that TMS meetings are the right forum to initiate new collaborations. They provide insight into industry and government research policies and a subjective knowledge of the most recent progress in my scientific field of interest."

Ziqi Sun

Ziqi Sun, currently conducting postdoctoral research at the Institute for Superconducting and Electronic Materials at the University of Wollongong, Australia, earned both his master's degree and Ph.D. from the Institute of Metal Research, Chinese Academy of Sciences. He also completed a fellowship at the National Institute for Materials Science, Japan. His current research interest is nanomaterials design and characterization for sustainable energy harvesting, conversion, and storage. "TMS provides a great platform to network, present research, share industrial applications, and introduce innovation," said Sun. "As a member, TMS benefits me by assisting the development of my professional career, exchanging new ideas, and establishing future collaborations and research partnerships."

"I am honored to receive a Young Leaders Professional Development Award from the TMS Foundation, and accept the responsibility of becoming a future leader to serve our research community."

— Wei Xiong

Hsin-Jay Wu

Now an assistant professor at National Sun Yat-Sen University, Taiwan, Hsin-Jay Wu began her TMS career five years ago as a student member and has been regularly participating in annual meetings since then. She earned both her undergraduate degree and Ph.D. from National Tsing-Hua University, Taiwan. Her research focuses on thermoelectric materials systems, with an emphasis on phase stability, microstructural evolution, and thermoelectric property optimization. "I was honored to receive this award," noted Wu. "I am also looking forward to continuing involvement in TMS activities as they provide a platform for experts from all around the world to discuss, cooperate, and make connections."

Wei Xiong

Wei Xiong treasures all the experience he gained as an active TMS member, and is looking forward to continuing his involvement by organizing symposia and contributing to technical committees. "Being a TMS member has given me opportunities to communicate and collaborate with top-level materials scientists. I am able to exchange ideas with many talented materials and metallurgical science professionals on an interdisciplinary platform," noted Xiong. "I am honored to receive a Young Leaders Professional Development Award from the TMS Foundation, and accept the responsibility of becoming a future leader to serve our research community." Xiong received his Ph.D. from KTH Royal Institute of Technology, Sweden, and currently works as a research associate at Northwestern University. His expertise is in advanced materials and processing design, with a focus on phase transformations using

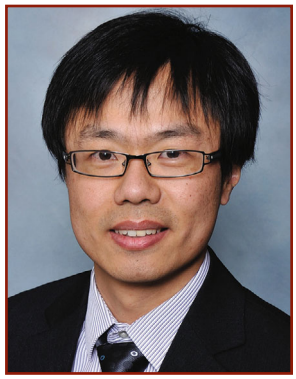
advanced characterization experiments and multi-scale modeling.

Jiahua Zhu

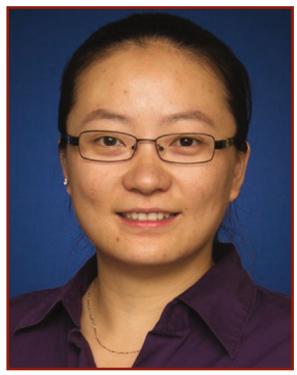
Jiahua Zhu is an assistant professor in the Department of Chemical & Biomolecular Engineering at the University of Akron. He received his Ph.D. from Lamar University, Texas, and in China, earned his master's degree from Nanjing University of Technology and his undergraduate degree from Yangzhou University. "My first TMS meeting experience goes back to 2010 in Seattle. The most exciting part of being a TMS member is the easy access to research frontiers with experts from all over the world," said Zhu. "Being encouraged by peers, colleagues, and mentors, I finally found my career path in academia as an educator and researcher. I am growing in this society with generous support from the TMS Foundation and I am ready to contribute to supporting TMS's continued growth." Zhu has chaired and co-chaired multiple sessions at past TMS meetings. He is currently researching new synthetic routes to multifunctional nanocomposites with advanced applications in environmental remediation, energy harvesting/conversion, and electronic sensing device fabrication.

Jingxi Zhu

Jingxi Zhu earned her Ph.D. in materials science and engineering from Carnegie Mellon University and is currently an assistant professor at the Sun Yat-Sen University-Carnegie Mellon University Joint Institute of Engineering. Zhu joined TMS as a student member in 2008 and currently serves on the Magnetic Materials Committee and the Energy Committee. She is also a key reader for *Metallurgical and Materials Transactions*. "I gained so much as a Ph.D. student member of TMS by attending technical sessions, presenting my work, and participating in student activities," said Zhu. "My participation as a professional member has taken my understanding of TMS to a different level, particularly in how the symposia are organized to best address the research interests of annual meeting attendees from all over the world."



Jiahua Zhu



Jingxi Zhu

EXTRACTION & PROCESSING DIVISION

Xiaofei Guan

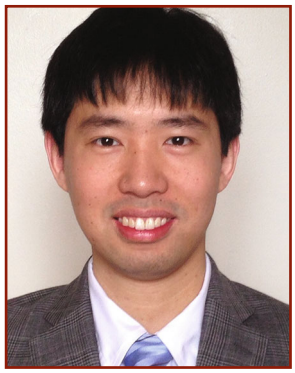
Xiaofei Guan is a postdoctoral fellow at Harvard University. Prior to joining Harvard, he was a postdoctoral research associate and graduate student at Boston University, where he received his Ph.D. His research has been focused on the development of a solid oxide membrane-based electrolysis process for the production of technologically important metals, such as aluminum and magnesium, in an energy-efficient and environmentally sustainable way. "TMS membership benefits me in two major ways," said Guan. "First, *JOM* helps me keep up to date with the latest developments in the field of materials and metallurgy. Second, the annual meeting offers a great platform for me to share my results and also to learn and network with experts in my field."

"TMS membership benefits me in two major ways. First, JOM *helps me keep up to date with the latest developments in the field of materials and metallurgy. Second, the annual meeting offers a great platform for me to share my results and also to learn and network with experts in my field."*

— Xiaofei Guan

John Howarter

John Howarter is an assistant professor in materials engineering at Purdue University, with a joint appointment in environmental and ecological engineering. His research interests are centered on the synthesis, processing, and characterization of polymers and nanocomposite materials for environmental applications. Howarter earned his undergraduate degree from The Ohio State University and Ph.D. from Purdue University, both in materials engineering. From 2009–2011 he was a National Research Council postdoctoral scholar in the Polymers Division of the National Institute of Standards and Technology.



Xiaofei Guan

John Howarter

Guillaume Lambotte

Li Li

Takanari Ouchi

Mingming Zhang

"I deeply appreciate the TMS Foundation's granting me this award and I will try my best to contribute to the growth of TMS. As a young scholar in materials science, TMS membership has benefitted me by providing a wonderful opportunity to communicate with peer researchers and scientists in the field."

— Li Li

Guillaume Lambotte

Upon earning his undergraduate degree from École Européenne d'Ingénieurs en Génie des Matériaux, Guillaume Lambotte worked as an assistant production manager at a Pechiney aluminum extrusion plant in Germany. He then decided to pursue a career in research, earning both his master's degree and Ph.D. from the École Polytechnique de Montréal. He is now serving as a postdoctoral associate at the Massachusetts Institute of Technology (MIT), where he is working on the development of a thermodynamic approach to metal extraction by electrolysis applied to molten oxide electrolysis for rare earths as well as to molten sulfide electrolysis, for rare earth metals production. "TMS is the first professional organization I joined, and since then, it is where I have met most of the professionals with whom I now collaborate," Lambotte said. "Additionally, the TMS annual meeting is where I presented the results of my Ph.D. research, as well as more recent work. This is an important conference where I have the opportunity to discuss my research and discover what other researchers are doing. My TMS membership has already benefited me in many ways."

Li Li

Li Li, a senior research associate at Cornell University, earned his Ph.D., as well as two master's degrees, from Carnegie Mellon University. Li has organized symposia for TMS annual meetings, including the Energy Technologies and Carbon Dioxide Management Symposium slated for TMS2015. He is also an active member of the TMS Energy Committee. "I deeply appreciate the TMS Foundation's granting me this award and I will try my best to contribute to the growth of TMS," said Li. "As a young scholar in materials science, TMS membership has benefitted me by providing a wonderful opportunity to communicate with peer researchers and scientists in the field. In addition, it offers me a platform to introduce and present myself to the materials community."

Takanari Ouchi

Takanari Ouchi studied at Waseda University, Japan, earning his undergraduate and master's degrees, as well as his Ph.D., from that institution. While pursuing his thesis, Ouchi worked as a research associate in Waseda's Department of Applied Chemistry from 2009 to 2011. He became a postdoctoral associate at MIT's Materials Processing Center, and since then Ouchi has worked on a liquid metal battery project for grid-scale energy storage. He has also investigated corrosion and new chemistries for liquid metal batteries, building upon his research specialties, which include surface science, electrochemistry, and chemical metallurgy.

Mingming Zhang

Mingming Zhang is a senior research engineer at ArcelorMittal Global R&D. He is responsible for raw material characterization and process efficiency improvement in the areas of mineral processing and iron making. He earned his Ph.D. in metallurgical engineering from the University of Alabama and his master's degree in mineral processing from the General Research Institute for Non-Ferrous Metals in China. Prior to joining ArcelorMittal, he was a metallurgical engineer at Nucor Steel, where he led the development of a computer model for simulating a slab solidification and secondary cooling process. Zhang serves as a key reviewer for *Metallurgical and Materials Transactions B* and has helped organize a number of symposia, including the Characterization of Minerals, Metals, and Materials symposium held at the TMS annual meetings from 2012–2015.

LIGHT METALS DIVISION

Yashuang Gao

Yashuang Gao is a manager in the Light Metals Research Centre at the University of Auckland, New Zealand, where she recently completed her Ph.D. She has been managing all projects, clients, and business in China for the research center for the last two years. She holds a position in Principal Engineering-Process Control, and leads a team of up to 15 people in developing and implementing advanced technologies in smelters. "This award will provide me with great opportunities to be a part of a TMS organizing committee and contribute to the annual meeting, which has benefited me since the beginning of my career," said Gao. "The recognition will also help me build new contacts and network with other organizers, leaders, and experts in the aluminum industry."

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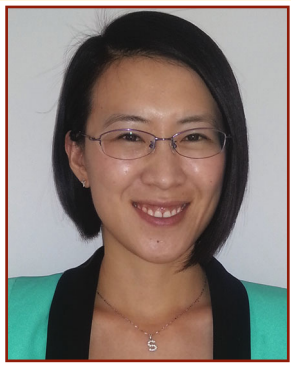
— Yashuang Gao



Yashuang Gao

Ayesha Gonsalves

Ayesha Gonsalves is a materials engineer at the GE Global Research Center, and is currently pursuing her Six Sigma Blackbelt certification. She has worked primarily on cell design for GE's Durathon battery, as well as on ceramic process optimization for investment casting programs supporting GE's power and water and aviation business units. She received her Ph.D. and master's degree from Carnegie Mellon University and her undergraduate degree from McMaster University. During her undergraduate studies, Gonsalves was named a TMS Light Metals Division scholar for her internship work at the Novelis Global Technology Center. While at Novelis, she was awarded the National Science and Engineering Research Council Undergraduate Student Research Award in Industry in 2005 and 2006. Gonsalves is currently the Albany Hub co-leader for *Igniting Minds*, a GE-sponsored initiative in which GE volunteers teach math and science to seventh-grade students in a fun and interactive way.

Ayesha Gonsalves

Keegan Hammond

Prior to joining Aleris International as a metallurgical engineer in 2013, Keegan Hammond worked as a research and teacher's assistant at the Colorado School of Mines while completing her master's degree at that institution. She has also worked as a project engineer for Hazen Research and a project optimization and design engineering intern for Newmont Mining. Her research interests include recovery of value-added products from red mud, precious metal recovery and processing, recycling of aluminum, and energy optimization.

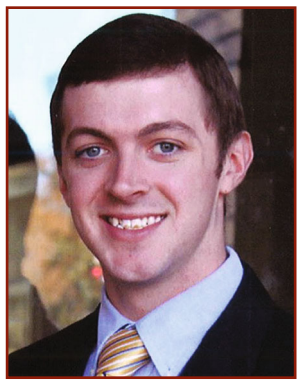
Keegan Hammond

Michael Powell

Michael Powell is an industrial engineer at Southwire Company, where he also interned while working toward his bachelor's degree from Southern Polytechnic State University, Georgia, in industrial engineering technology. He is also Six Sigma lean manufacturing certified. At Southwire, Powell's primary work has been in both aluminum and copper metals for electrical applications, encompassing materials development and materials processing technologies. "TMS helps bridge the gap between academic materials research and industrial

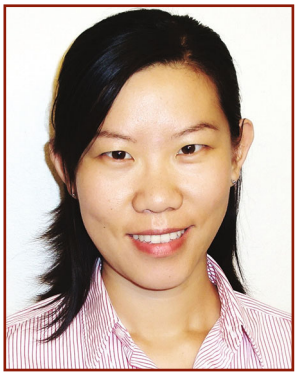
"TMS helps bridge the gap between academic materials research and industrial innovation. That is exactly why being a member is so important to me."

—Michael Powell



Michael Powell

Mesut Varlioglu



Lei Zhang

innovation. That is exactly why being a member is so important to me," noted Powell. "The world of materials is ever-changing. Industries are always looking for the newest materials to improve their products. By being a TMS member, I am able to access the latest materials research and developments from all over the world."

Mesut Varlioglu

Mesut Varlioglu is a senior materials engineer at Hewlett-Packard. He earned his Ph.D. in materials science from Iowa State University, his master's degree from Illinois Institute of Technology, and his bachelor's degree from Istanbul Technical University of Turkey. While pursuing his Ph.D., Varlioglu worked at Argonne National Laboratory where he led various research and development efforts to create in-situ texture and residual stress characterization techniques for ferroelectric ceramics, using synchrotron radiation. He has authored three patents and a dozen articles in peer-reviewed journals, including *Acta Materialia*.

Lei Zhang

Currently a member of the TMS Energy Committee, Lei Zhang hopes to continue her involvement with TMS through other technical committees and meetings. "Attending TMS annual meetings over the years has enabled me to gain knowledge and insight into nanomaterials, light metals, and advanced materials for energy, which are relevant to my research areas," said Zhang. "Exchanging information and ideas among the disciplines within the TMS community has helped me pursue state-of-the-art development of new materials and their potential applications." Zhang is currently an assistant professor in the Department of Mechanical Engineering at the University of Alaska Fairbanks (UAF). Prior to joining UAF in 2013, she served as a postdoctoral associate in the Department of Chemical and Biomolecular Engineering at the University of Pennsylvania. She received her Ph.D. in materials science and engineering from Michigan Technological University.

MATERIALS PROCESSING & MANUFACTURING DIVISION

Mohsen Asle Zaeem

Megan Cordill

Mohsen Asle Zaeem

Mohsen Asle Zaeem is the Roberta and G. Robert Couch Assistant Professor of Materials Science & Engineering at Missouri University of Science & Technology (Missouri S&T). Zaeem earned his bachelor's and master's degrees from Shiraz University, Iran, and his Ph.D. in mechanical engineering from Washington State University. Prior to joining Missouri S&T, Zaeem was a postdoctoral fellow and an assistant research professor in the Computational Manufacturing and Design group within the Center for Advanced Vehicular Systems at Mississippi State University. He is currently the *JOM* advisor for the Solidification Committee. His research interests include developing different computational models for predicting nano- and microstructures of materials during solidification, grain growth, and solid state phase transformation in lightweight and energy-related materials.

"The TMS Foundation provides access to a fantastic network of both technical and professional development opportunities, supporting students and young researchers and contributing to their research and career development."

— Megan Cordill

Megan Cordill

Megan Cordill has been an active TMS member since 2009 and is currently serving as chair of the Nanomechanical Materials Behavior Committee. She earned bachelor's and master's degrees from Washington State University and her Ph.D. from the University of Minnesota."Receiving the award will allow me to increase my involvement within TMS and I welcome the opportunity to be part of the further development and growth of the society," Cordill said. "The TMS Foundation provides access to a fantastic network of both technical and

"As a TMS member, I have opportunities to connect with leaders in the field of computational materials science and engineering, which helps me develop my leadership skills and work with the professional community to provide positive changes. I am proud to be a part of TMS."

— Caizhi Zhou

professional development opportunities, supporting students and young researchers and contributing to their research and career development." Cordill is a senior scientist with the Erich Schmid Institute of Materials Science of the Austrian Academy of Sciences located in Leoben, Austria. Her research interests include thin film adhesion and new methods of quantifying adhesion energies of interfaces, nanoindentation techniques, and structure-properties relationships of thin films and nanostructures.

Eric Homer

Eric Homer is an assistant professor of mechanical engineering at Brigham Young University. He received both his bachelor's and master's degrees from Brigham Young and his Ph.D. from MIT. Prior to joining the faculty at Brigham Young in 2011, Homer held a postdoctoral appointment in the Computational Materials Science and Engineering Department at Sandia National Laboratories. His research is focused on modeling the mechanical behavior of amorphous metals, the coupled microstructural-compositional evolution in polycrystalline materials, and grain boundary migration in polycrystalline metals. He is the recipient of the National Defense Science and Engineering Graduate Fellowship and two Brigham Young University Department of Mechanical Engineering Outstanding Faculty Teaching Awards.

Virendra Singh

Virendra Singh earned his undergraduate degree from Malaviya National Institute of Technology, India, his master's degree from the Indian Institute of Science, and his Ph.D. from the University of Central Florida. He currently works as a materials engineer at Schlumberger Technology Corporation. His research interests encompass corrosion resistant alloys, coatings, and surface treatments for oil field applications. "Joining TMS has given me a platform to present my research and meet researchers from around the globe, starting from my student career," said Singh. "This award presents me with an additional opportunity to serve TMS, listen to interesting talks, and participate in society meetings to enhance academia and industry networks."

Jason Trelewicz

Jason Trelewicz earned his undergraduate degree from Stony Brook University and his Ph.D. from MIT, where he also worked as a research associate. In 2012, Trelewicz returned to Stony Brook as an assistant professor in the Department of Materials Science and Engineering and as the director of the High Performance Computing Consortium in the Institute for Advanced Computational Science. Additionally, Trelewicz heads a research group at Stony Brook that focuses on the design, synthesis, stability, and mechanical behavior of unique "mixed-mode" metallic nanostructures.

Caizhi Zhou

Caizhi Zhou joined the Missouri University of Science and Technology faculty as an assistant professor of materials science and engineering in 2013. Prior to this, he worked at Los Alamos National Laboratory as a postdoctoral researcher and received his Ph.D. from Iowa State University. His research explores fundamental material deformation and strengthening mechanisms to develop models bridging atomistic, micro/meso, and continuum scales. "TMS offers an extraordinary forum for researchers from various technical backgrounds, fostering the exchange of ideas and knowledge, as well as promoting new collaborative research," said Zhou. "As a TMS member, I have opportunities to connect with leaders in the field of computational materials science and engineering, which helps me develop my leadership skills and work with the professional community to provide positive changes. I am proud to be a part of TMS."

Eric Homer

Virendra Singh

Jason Trelewicz

Caizhi Zhou

STRUCTURAL MATERIALS DIVISION

Xian-Ming (David) Bai

Allison Beese

Avinash Dongare

Michael Porter

Xian-Ming (David) Bai

Xian-Ming (David) Bai is a staff scientist in the Center for Advanced Modeling and Simulation at Idaho National Laboratory. He received his Ph.D. from the Georgia Institute of Technology and conducted his postdoctoral research at Los Alamos National Laboratory. He has extensive experience in using atomistic modeling to study radiation damage evolution in metals and oxides, zirconium corrosion, grain boundary migration, and thermal transport in oxide ceramics. He served as a lead symposium organizer at TMS2014 and as a guest editor for *JOM*. "Since I became a TMS member in 2010, I have experienced many benefits from TMS, including presenting my research results to my peers, learning about other people's research, networking with researchers from all over the world, and building collaboration opportunities," said Bai. "TMS also provides excellent opportunities for young scientists to develop their leadership skills. Winning this award will encourage me to be even more involved in future TMS activities. I am truly grateful to TMS and the TMS Foundation for this award."

Allison Beese

Allison Beese returned to the Pennsylvania State University (Penn State) as an assistant professor of materials science and engineering in 2013 after previously earning her undergraduate degree there. She also worked at Lockheed Martin's Knolls Atomic Power Laboratory and completed postdoctoral work at Northwestern University. She received her Ph.D. from MIT where she was awarded a Department of Defense National Defense Science and Engineering Graduate Fellowship. Her research at Penn State focuses on determining the relationships between the initial and evolving microstructure of a material and its macroscopic plasticity and fracture behavior, using both experimental investigation and computational modeling. One of her research programs specifically examines the processing-property-mechanical property relationships in additive-manufactured metallic components, including titanium, steel, and nickel alloys. "I attended a TMS annual meeting for the first time in 2014. I immediately felt part of a community when I joined the Mechanical Behavior of Materials Committee and the Advanced Characterization, Testing, and Simulation Committee," said Beese. "I have enjoyed meeting and working with people in TMS, particularly in relationship to co-organizing a new symposium on additive manufacturing for TMS2015. I look forward to getting more involved in TMS activities and contributing to the organization."

Avinash Dongare

Avinash Dongare is an assistant professor in the Department of Materials Science and Engineering at the University of Connecticut and serves as the faculty advisor for the university's Material Advantage chapter. His current projects examine the modeling of mechanical behavior, thermodynamic behavior, phase transformation behavior, and corrosion/oxidation behavior of structural materials in extreme environments; mechanical, electronic, and optoelectronic properties of nanostructured materials; and surface processes and mechanisms during growth of nanostructured materials. Dongare received his Ph.D. from the University of Virginia and was the recipient of a National Research Council Research Associateship Award from the U.S. Army Research Office. "I have been a TMS member for several years, starting as a graduate student. The TMS annual meeting has been one of my main sources for networking with peers and colleagues and for building new relationships in the materials community," said Dongare. "TMS feels like a home to me where I receive encouragement, motivation, and recognition for my efforts in materials science and engineering."

Michael Porter

"As a relatively new and active member of TMS and the Structural Materials Division, I am honored to be recognized by this award. I have found the resources and opportunities provided by the TMS Foundation to be very beneficial toward the advancement of my career as a new assistant professor," said Michael Porter,

who recently joined the faculty at Clemson University after completing his Ph.D. at the University of California, San Diego. Porter earned his master's degree from the University of Hawaii and his undergraduate degree from Virginia Polytechnic Institute and State University. "TMS has been an excellent platform for me to share my cross-disciplinary research in materials science, biology, and mechanical engineering, primarily through presentations at the annual meeting and in publications like *JOM*," Porter said. "This past year, I volunteered to co-organize the biological materials science symposium, which I have found to be a great experience that allows me to network with other prominent researchers in my field and contribute to the overall program organization."

Ramprashad Prabhakaran

Ramprashad Prabhakaran is working as a research associate at Pacific Northwest National Laboratory (PNNL) while he completes his Ph.D. at the University of Idaho. Prior to this, he worked at the Idaho National Laboratory and at the University of Nevada, Las Vegas, while earning two master's degrees from that institution—one in mechanical engineering and one in nuclear engineering. His expertise encompasses evaluating environment-induced degradations, performing microstructural characterization on U-Mo fuels, structural materials, and friction-stir-welded ODS alloys, designing experiments, performing failure analysis, and understanding material structure-property-processing relationships. He currently chairs the TMS Nuclear Materials Committee and serves as the *JOM* advisor for this committee.

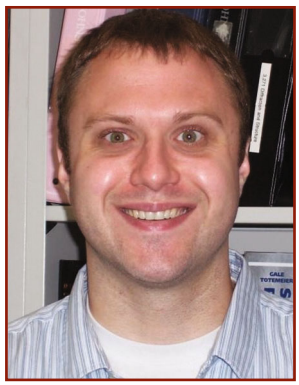
Timothy Rupert

Timothy Rupert is an assistant professor of mechanical and aerospace engineering at the University of California, Irvine, with a joint appointment in chemical engineering and materials science. His research focuses on uncovering new structure-property relationships in nanomaterials for next-generation structural, electronic, and energy components, as well as increasing the reliability and lifetime of these materials. To achieve these goals, his laboratory uses a combination of cutting-edge experimental, characterization, and computational techniques. Rupert received a National Science Foundation CAREER Award in 2013 to support his research on grain boundary engineering in nanocrystalline metals and a Hellman Fellowship in 2014 to study strategies for tuning the structure and radiation resistance of interfaces. He earned both his undergraduate and master's degrees from Johns Hopkins University and his Ph.D. from MIT. "TMS has been instrumental in my professional development by providing excellent conferences and networking opportunities," said Rupert. "In fact, my first conference was TMS2008 in New Orleans. That experience taught me a great deal about scientific presentations and let me learn from top materials scientists. As a young leader, I hope to return the favor by becoming more involved in TMS and helping today's students."

"I have found the resources and opportunities provided by the TMS Foundation to be very beneficial toward the advancement of my career as a new assistant professor."

—Michael Porter

Ramprashad Prabhakaran



Timothy Rupert

Kaitlin McMahon is the TMS Copy Writer. Lynne Robinson, *JOM* Contributing Editor, and Deborah Price, TMS Awards and Recognition Specialist, also contributed to this article.

Applications Open for 2016 Young Leaders Awards

TMS Young Leaders Professional Development Awardees are dynamic members of the minerals, metals, and materials community, with an interest in becoming more active in TMS technical division and young professional program activities. They possess leadership skills and are willing to participate in various TMS initiatives. In addition, awardees embody qualities that indicate promise for advancing within TMS to take on more responsibilities and higher positions.

Any professional TMS member in good standing who is 40 years old or younger is eligible to apply for a Young Leaders Professional Development Award. The deadline for applications for the 2016 awards is August 15, 2015. For additional information and an application, visit the TMS Professional Honors and Awards website at *awards.tms.org*.

TMS International Scholars Make a Difference in the World


Kyle Brinkman


Quizhen Li


Nobuo Nakada

In 2006, TMS and the Japan Institute of Metals and Materials (JIM) established a joint Young Leaders International Scholar Program to promote an active young member base and strengthen collaboration between the two societies. This TMS International Scholar Program was expanded in 2013 to include a collaboration with the Federation of European Materials Societies (FEMS), with an award presented every other year. Made possible by the TMS Foundation, the TMS International Scholar Program provides the financial support necessary to enable young TMS members to present papers and develop contacts at JIM and FEMS technical meetings. Additionally, JIM and FEMS each sponsor a young professional from their memberships to present a paper at a TMS annual meeting.

"The TMS Foundation provided an early boost to my career through a 2011 Electronic, Magnetic & Photonic Materials (now Functional Materials) Young Leaders Professional Development Award and as the TMS representative to the 2011 Emerging Leaders Alliance (ELA) conference," said Kyle Brinkman, 2015 FEMS/TMS Young Leader International Scholar. "These awards provided travel funds, as well as networking opportunities and leadership training, that I credit with my professional advancement. Shortly after receiving the awards, I was promoted and made a program manager of energy-related activities at Savannah River National Laboratory before I made the transition to academia. I look forward to continued active involvement with TMS."

Currently an associate professor and Material Advantage chapter advisor at Clemson University, Brinkman also directs a research group focusing on energy materials, including electronic ceramic materials for gas separation and processing in commercial and nuclear domains, structure/property relations in solid oxide fuel cell systems, radiation-tolerant crystalline ceramics for applications in nuclear energy, and multifunctional ceramic thin films. He earned both his undergraduate and master's degrees at Clemson, and his Ph.D. at the École Polytechnique Fédérale de Lausanne. As the 2015 TMS International Scholar, he will travel to Warsaw, Poland, in September to participate in EUROMAT 2015.

Quizhen Li, an associate professor at Washington State University and 2015 JIM/TMS Young Leader International Scholar, has been an active member of TMS since she joined as a graduate student. "TMS provides a lot of social activities, which allow me to be involved in several technical committees, including the Mechanical Behavior of Materials Committee, Powder Metallurgy Committee, Titanium Committee, and Young Professionals Committee," said Li, who is also the current Young Professionals Committee Chair. "This involvement allows me to interact with other TMS members and is highly beneficial to my career. It is truly a great honor for me to be chosen to represent TMS at the JIM 2015 Annual Spring Meeting through this award." Li earned her Ph.D. from The Ohio State University and received a Light Metals Division Young Leaders Professional Development Award in 2012. Li is also the recipient of a National Science Foundation CAREER Award to study magnesium-based nanoporous materials.

The JIM Young Leader representing JIM at TMS2015 is Nobuo Nakada, assistant professor at Kyushu University. He earned his Ph.D., as well as his undergraduate and master's degrees, from Kyushu University. In 2009, Nakada won a Young Researcher Award from the Iron and Steel Institute of Japan, and another Young Researcher Award in 2013 from JIM. Nakada will present his paper, "Microstructural Characteristics of Austenite Formed from Lath Martensite via Martensitic Reversion," on Tuesday, March 17 at TMS2015.

Any active TMS member 40 years old or younger may apply for a TMS International Scholar Award. For more information and an application, visit the TMS Professional Honors and Awards website at *awards.tms.org*.