

Updates on friends and colleagues in the materials community

TMS Announces Wired to Washington



From energy to economic development to science education, materials science and engineering (MSE) plays a pivotal role. To make informed policy decisions regarding these and other pressing issues, U.S. leadership needs to hear from MSE professionals about the breadth and impact of their work, while also providing perspective on how actions in Washington could affect progress toward solutions in the field.

Wired to Washington, a new online service offered by TMS and its Public and Governmental Affairs Committee, can quickly and easily connect you with federal government decision-makers to make sure your voice is heard on an array of issues important to materials science and engineering. Using a simple Web-based tool, you can choose from a list of current topics that will form the basis of a pre-written letter. You also have the option of preparing a more personalized one. The entire process takes less than a minute and your letter will be delivered electronically straight to the desk of whomever you choose—from the president to cabinet members to your legislator on Capitol Hill.

Letter topics, along with background information, are currently being developed and will be announced in the coming weeks and months. To preview the tool, go to <http://www.tms.org/PGA/PGAw2w.aspx#>.

TMS is a non-politically affiliated international professional membership organization based in the United States. Wired to Washington was developed for TMS members and the general public, but participation is limited to U.S. citizens.

Subra Suresh Confirmed as NSF Director

The National Science Foundation (NSF) announced on September 30 that the U.S. Senate confirmed Subra Suresh, President Barack Obama's nominee for NSF director, for a six-year term.



Named a TMS Fellow in 2000, Suresh previously served as the engineering school dean and Vannevar Bush Professor of Engineering at the Massachusetts Institute of Technology (MIT). A mechanical engineer who later became interested in materials science and biology, Suresh has done pioneering work studying the biome-

chanics of blood cells under the influence of diseases such as malaria.

Commented Diran Apelian, 2008 TMS President and a colleague of Suresh's, "Subra is a visionary and an articulate spokesperson for science and engineering. He not only understands our societal issues and needs, but also knows what steps need to be taken in order to accomplish goals. I look forward to his leadership at the helm of NSF. It is a good thing for our nation and for the world."

Suresh replaces Arden L. Bement, Jr. Bement, a TMS member since 1965, led the agency from 2004 until he resigned in May to lead Purdue University's new Global Policy Research Institute.

Narendra B. Dahotre Elected SME Fellow

Narendra B. Dahotre, chairman and professor, Materials Science and Engineering at the University of North Texas, and TMS member since 1989, has been elected to the Society of Manufacturing Engineers' (SME) 2010 College of Fellows. Dahotre's research has focused on



developing laser-based surface engineering for advanced materials. He has authored two books, edited 14 others, published nearly 200 technical papers, and holds 15 U.S. patents. In addition to supervising a number of master's students, doctoral candidates, and postdoctoral fellows, he has also opened his laboratory to undergraduate and high school students, and has created an array of industrial internships and other hands-on learning opportunities.

Tiryakioğlu Named School of Engineering Director

Murat Tiryakioğlu, a TMS member since 1998, is the new School of Engineering director at the University of North Florida (UNF), Jacksonville. Prior to coming to UNF, Tiryakioğlu was a distinguished professor in the Department of Engineering at Robert

Morris University, Pittsburgh, Pennsylvania, and has also worked for Boeing and Western Kentucky University. He is the author or co-author of several chapters and more than 100 technical papers and reports, as well as the editor of six books.

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Meet a Member: Dr. Herderick Goes to Washington

By Lynne Robinson

Ed Herderick follows the twists and turns of Senate Bill 3226—the POWERED Act of 2010—through the legislative process with keen interest. And, for good reason.

He helped write it.

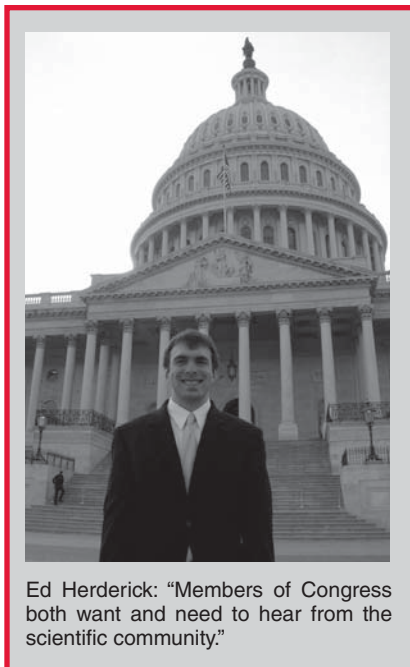
As the 2009–2010 American Ceramic Society/Materials Research Society (MRS)/TMS Congressional Science and Engineering Fellow, ensuring that a solid scientific perspective informed national policy decisions—on topics ranging from energy to education—was all in a day’s work for Herderick. On S3226, which supports the development of an offshore wind power industry on the Great Lakes, Herderick commented, “You can tell that a materials science guy drafted parts of it.”

Herderick had applied for the fellowship while finishing his doctorate in materials science and engineering at Ohio State University (OSU). He had already caught glimpses of the political process at work, having experienced some success publishing opinion pieces in the local newspaper and serving as a government relations committee member on the OSU council of graduate students. The fellowship intrigued him because it offered a direct route to becoming more actively engaged in shaping science policy. “I wanted to learn how to turn ideas into legislation,” he said.

Upon his being assigned to the Washington, D.C. office of Sen. Sherrod Brown (D) of Ohio, Herderick discovered quickly that the environment was very different from the lab at OSU. “I joke with people that this was a very intense year of soft skills training,” he said.

A key challenge, Herderick continued, was the need to interact with a broad range of constituents, often on topics that did not necessarily fall within his specific research area. “As a staffer on Capitol Hill, you have to be a ‘specialized generalist’ and jump

from topic to topic, while also effectively communicating a sophisticated perspective on an issue in a few words or lines of text,” he said. “But, more importantly, you have to listen very carefully to what stakeholders are saying—it’s not just about processing in-



Ed Herderick: “Members of Congress both want and need to hear from the scientific community.”

formation. You have to learn the subtleties of what their issues are.”

Taking into account the myriad concerns of Brown’s constituents while also offering his best scientific advice, Herderick had a hand in developing legislation, assisting with press conferences, and writing speeches and briefing papers throughout his fellowship. “I was able to contribute in all kinds of ways,” he said. “I got to meet so many different types of people in the materials community and gained good insight into the interplay of research, industry, and policy making.”

Now that his fellowship has concluded, Herderick is beginning the next phase of his career as an applications engineer with the Edison Welding Institute (EWI) in Columbus, Ohio. He has also made it somewhat of a person-

al mission to encourage his colleagues in materials science and engineering to become more engaged in the democratic process.

“One thing that I learned from being ‘on the other side of the door’ is that members of Congress both want and need to hear from the scientific community,” he said. “I think scientists and engineers have done a good job communicating that research and development is a priority, but now we need to become more sophisticated in our approach to policy makers. Don’t get bogged down in discussing the broad issues facing our society. They already know about those. It’s more important to tell them what a policy decision means to you as a constituent: ‘This funding means I can hire more graduate students or can continue these important advances in my research.’ They need to know those stories ‘on the ground’ in order to make informed decisions.”

For his part, Herderick believes the relationships that he built through his work with Brown’s office have made him more effective as both a scientist and a citizen. “Now when I read an article about a particular issue, I can see the connections with other topics and have an idea of who is involved. And, that’s what politics is all about. It’s not just knowing the issue. It’s knowing the people.”

Applications are being accepted for the 2011–2012 MRS/TMS Congressional Science and Engineering Fellowship until January 7, 2011. For additional information, contact Warren H. Hunt, Jr., TMS executive director at whunt@tms.org.

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.