



*Updates on friends and colleagues in the materials community*

## Greer Named One of the World's Top Young Innovators

Julia Greer has been named one of the world's top innovators under the age of 35 by *Technology Review* magazine for her work with materials on a nanoscale level. Greer, 32, is a TMS member and assistant professor of materials science in the Division of Engineering and Applied Science at the California Institute of Technology.



"Julia Greer has reinvented nanomechanics—the field that studies the mechanical properties, such as elasticity and strength, of materials at extremely small scales," reads the *Technology Review* profile of Greer. While scientists have typically measured the mechanical properties of nanoscale materials by using a scanning electron microscope to capture images of a sharp tip poking the surface of a thin film of the material, Greer introduced a technique that tests a nano pillar of the target material,

compressing it and pulling on it in a single dimension instead of deforming an entire sheet. Greer used the method to confirm that metals and metal alloys are stronger at the nanoscale than at larger scales.

Greer was one of 35 young innovators selected from more than 300 nominees by a panel of expert judges and the editorial staff of *Technology Review*, which is published by Greer's alma mater, the Massachusetts Institute of Technology. Each year the publication selects the TR 35, a list of young technologists and scientists whose work spans medicine, computing, communications, electronics, nanotechnology, and more.

"The TR35 honors young innovators for accomplishments that are poised to have a dramatic impact on the world as we know it," says Jason Pontin, editor-in-chief and publisher of *Technology Review* magazine. "We celebrate their success and look forward to their continued advancement of technology in their respective fields."

## In Memory of TMS Senior Member Ralph P. Ruth, 1925–2008

Ralph P. Ruth, a research physicist and long-time TMS member, passed away earlier this year in Santa Barbara, California, at the age of 82. Ruth was a



senior member of TMS was a member of the society since 1986.

Ruth received a B.S. in physics in 1946 from Case Institute of Technology in Cleveland, and earned a Ph.D. in physics from the Pennsylvania State University in 1952. Ruth's career took him to a number of companies. He worked at the Knolls Atomic Power Laboratory in Schenectady, New York; General Electric in Syracuse, New York; the Bendix Corporation in Southfield, Michigan; Hoffman Electronics in Santa Barbara, California; Rockwell

International in Anaheim, California; and the Santa Barbara Research Center (Hughes Corporation) in Goleta, California.

His research specialties included infrared and semiconductor materials, and he was one of the pioneer researchers into solar cell technology. He organized several scientific conferences, both in the United States and abroad. He served as president of the Placentia Unified School District Board of Education in Orange County, California, from 1969 to 1973, as well as on advisory committees to Chapman College and California State University at Fullerton.

His family has requested that donations be made in his name to Elyria High School's science programs, in honor of his commitment to science education. Ruth graduated from Elyria, which is located in Columbus, Ohio.

## TMS CONFIRMS NEW BOARD MEMBERS

In the July issue of *JOM*, TMS presented its members with four candidates to fill open slots on the 2009 TMS Board of Directors. These candidates, listed below, have been approved by the TMS membership and will assume their responsibilities at the TMS 2009 Annual Meeting in San Francisco, California, February 15–19. Each will serve a three-year term:

- **George T. (Rusty) Gray III**, Vice President: Gray is a laboratory fellow at Los Alamos National Laboratory in Los Alamos, New Mexico, and a member of the National Materials Advisory Board of the U.S. National Academies. He will serve as vice president in 2009, president in 2010, and Past President in 2011.
- **Stanley Howard**, Financial Planning Officer: Howard is a professor of Materials and Metallurgical Engineering at South Dakota School of Mines and Technology. He will guide the professional activities of TMS concerned with finances, audit, and investments.
- **Ellen Cerreta**, Membership & Student Development Director: Cerreta is a technical staff member within the Structure/Property Relations Group of the Materials Science Division at Los Alamos National Laboratory. She will guide the development of short- and long-term plans for activities related to TMS professional members and student members.
- **Hani Henein**, Programming Director: Henein is a professor at the University of Alberta and director of the Advanced Materials and Processing Laboratory there. He will guide the development of long- and short-term plans for programming at TMS technical conferences.

For detailed biographies of this year's new directors, see the July issue of *JOM*. For a complete list of the current members of the TMS Board of Directors, visit [members.tms.org/admin.html?divisions/bod.asp](http://members.tms.org/admin.html?divisions/bod.asp).