TMS Members Receive 2008 Acta Materialia Awards

Two TMS members have been selected to win the 2008 Acta Materialia awards. Karl A. Gschneidner, Jr., and Bhakta B. Rath will accept the 2008 Acta Materialia, Inc. Gold Medal and the 2008 Acta Materialia, Inc. J. Herbert Hollomon Award, respectively, at TMS conferences next year.

Karl A. Gschneidner, Jr.

Karl A. Gschneidner, Jr., a TMS fellow who has been a member of the society since 1961, has been selected to receive the 2008 Acta Materialia Gold Medal Award for demonstrated ability and leadership in materials research. Gschneidner will accept his award at the TMS 2008 Annual Meeting in New Orleans, Louisiana, in March.

Gschneidner is Anson Marston Distinguished Professor in the Department of Materials Science and Engineering at Iowa State University and senior metallurgist at the U.S. Department of Energy’s Ames Laboratory. He joined Iowa State as an associate professor in 1963 and became the founding director of the Rare-Earth Information Center at Iowa State’s Institute for Physical Research and Technology in 1966. He also served as director of the Metallurgy and Ceramics Program at Ames Laboratory.

Gschneidner’s research activity has been primarily concerned with the physical metallurgy of rare-earth metals and alloys, theory of alloy phase formation, electronic transformations of cerium, spin fluctuations in exchange enhanced solids, heavy fermions, superconductivity, magnetic refrigeration, and passive and active magnetic regenerator materials.

Gschneidner holds a B.S. degree from the University of Detroit and a Ph.D. from Iowa State University. Among Gschneidner’s many honors, he received the TMS William Hume-Rothery Award in 1978 for his contributions to the science of alloys, and he was elected to the National Academy of Engineering in 2007 for “contributions to the science and technology of rare-earth materials.” He received a research award for his work on the quenching of spin fluctuations and inducing magnetic moments in metamagnetic materials.

The Acta Materialia Gold Medal award consists of the gold medal, an inscribed certificate, and a check for a sum of money contributed by the Board. The medal is given annually by Acta Materialia, Inc. with partial financial support from Elsevier.

Bhakta B. Rath

Bhakta B. Rath, a fellow of TMS who joined the society in 1961, has been named the 2008 Acta Materialia, Inc. J. Herbert Hollomon Award winner. This award is given annually for outstanding career contributions to increased understanding of the relations between materials technology and societal interests or to contributions to materials technology that have had a major impact on society. The award was established in memory of J. Herbert Hollomon, who was the principal initiator of the journal Acta Metallurgica.

Rath is a senior executive at the U.S. Department of Defense (DoD). As head of the Materials Science and Component Technology Directorate and associate director of research of the Naval Research Laboratory (NRL), he is responsible for the planning, supervision, and administration of all basic and applied research in condensed matter physics, chemistry, electronics, materials science, and biomolecular science and technology conducted by a staff of approximately 720 scientists, engineers, and support personnel.

Rath completed his undergraduate studies in India and his master’s and doctoral studies at Michigan Technological University and the Illinois Institute of Technology, respectively.

In 1976, he joined the NRL, where he created centers for biomolecular science and engineering, environmental quality sciences, computational materials science, and, more recently, the Institute of Nanoscience.

The DoD selected Rath to receive the Meritorious Presidential Rank Award, presented by the president of the United States for sustained outstanding achievements of a senior executive, in 1999 and again in 2004. In 2005, he received the Distinguished President Rank Award, presented to a small number of senior executives within the U.S. government. This year, the Secretary of Defense recognized Rath with the Distinguished Civilian Service Award.

Rath was recently appointed by the Secretary of the Navy to represent the DoD in the development of collaborative plans with other government departments on Methane Hydrates—An Alternate Energy Source.

The Hollomon Award consists of a glass sculpture, an inscribed certificate, and a cash honorarium. Rath will receive his award at the Materials Science & Technology 2008 (MS&T ‘08) conference in Pittsburgh, Pennsylvania, next October.