



## **2008 Acta Materialia, Inc. J. Herbert Hollomon Award**

The winner of the 2008 Acta Materialia, Inc. J. Herbert Hollomon Award is Dr. Bhakta B. Rath, 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 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 some 720 scientists, engineers and support personnel. The Hollomon award recognizes outstanding contributions to interactions between materials science and technology that have had a major impact on society.

Following his undergraduate studies in India, and masters and doctoral studies at the Michigan Technological University and the Illinois Institute of Technology, Dr. Rath joined the faculty of Washington State University in 1961 and held a tenured position until 1965. Between 1965 and 1976, he was a member of the research staff of the Edgar C. Bain Laboratory for Fundamental Research of the US Steel Corporation, Pittsburgh, Pennsylvania, and research group leader at the McDonnell Douglas Research Laboratories in St. Louis, Missouri. He joined NRL in 1976 as Head of the Physical Metallurgy Branch, and assumed his present position in 1986. During these periods he also served as Adjunct Professor at the Carnegie Mellon University, the University of Maryland, and the Colorado School of Mines. He also served as the principal engineer in solving a number of specific technological problems in the Skylab coolant systems, structural integrity of fighter aircraft, coatings and sensors for ship structures, and other materials science applications, all of which have provided new technologies for the Navy/DOD, the nation, and society at large.

Through his creative planning, supervision and administration of the Directorate, he has brought significant improvements to the quality and productivity of the Laboratory. He created, among others, Centers for BioMolecular Science and Engineering, Environmental Quality Sciences, and Computational Materials Science, and more recently the Institute of Nanoscience.

As a scientist, as well as a research planner, Dr. Rath has demonstrated an outstanding record of achievements. He is the author/co-author of over 200 technical papers, has been invited to deliver over 300 keynote and plenary lectures, and has edited / co edited over 20 conference

proceedings. His contributions have been recognized by numerous awards and distinctions, including: the George Kimball Burgess Memorial Award (1992), the Charles S. Barrett Award of ASM International (1991), ASM Distinguished Life Membership Award, the ASM International Gold Medal Award (2004), and the Indian S. Chandrasekhar Award (1998). He is a Fellow of the American Society for Materials (1982), the Washington Academy of Sciences (1984), The Materials Society (TMS) (1992), the Institute of Materials, United Kingdom (2002), the Indian National Academy of Engineering (1996) and is a Honorary Member of the Indian Academy of Science. In 2001 he was elected by the Boards of two materials societies (ASM International and The Minerals, Metals & Materials Society) as the Distinguished Lecturer on "Materials and Society".

Dr. Rath currently serves on the editorial boards of the *Bulletin of Materials Science*, the *Journal of Materials and Design*, the *International Materials Review*, *Journal of Materials Processing* and the *Journal on "Materials Physics and Mechanics"* of the Russian Academy of Science, and the *Proceedings of the Indian National Academy of Science* .

Dr. Rath was selected by the Department of Defense to receive, in 1999 and again in 2004, the "Meritorious Presidential Rank Award," presented by the President for sustained outstanding achievements of a Senior Executive. He also received (in 2005) the "Distinguished Presidential Rank Award", the highest honor presented by the President during a White House ceremony to a small selected number of Senior Executives of the US Government. The Secretary of Defense recognized Dr. Rath as one of the six members presented with the "Distinguished Civilian Service Award" (2006).

Dr. Rath was named by the State Department to plan and manage a major Indo-US Science and Technology Collaboration Program (1985-2007), and he serves on the Advisory Committee of the Office of Science and Technology Policy of the President. His exemplary achievements have been recognized by the Indian S. Chandrasekhar Award (1998), and by being named an Honorary Member of the Science Academy, and a Fellow of the Indian Academy of Engineering. Early in 1980 he was among the first seven-member teams invited by the Chinese Academy of Science and the ministry of education to assist in formulating academic curriculum and graduate research plans in Materials Engineering.

Dr. Rath has served in many planning and steering committees and panels of the U.S. Navy, Air Force, Army, Department of Defense, Department of Energy, National Science Foundation, National Aeronautics and Space Administration, National Research Council, National Materials Advisory Board, and seven universities and technical societies. He was a member/co-author of the National Research Council Commission and panels which produced the widely referenced document on "Materials Science and Engineering for the 90's". Most recently he has been appointed by the Secretary of the Navy to represent the Department of Defense in the development of collaborative plans with a variety of government departments concerned with a major program on Methane Hydrates – An Alternate Energy Source.

The Acta Materialia, Inc. J. Herbert Hollomon Award was established in memory of Dr. Hollomon and his dedication to promoting positive social consequences of science and technology. Dr. Hollomon was the principal initiator of the international journal of the science

of materials, Acta Metallurgica. The Hollomon Award consists of a Steuben glass sculpture, an inscribed certificate, and a cash honorarium. The criteria for nomination and selection of candidates are either outstanding career contributions to increased understanding of the relations between materials technology and societal interests, or contributions to materials technology that have had a major impact on society. Dr. Rath was selected as the 2008 awardee by an international panel of judges appointed by the Board of Governors of Acta Materialia, Inc. and will receive this prestigious award in early October 2008 in Pittsburgh, PA during the 2008 MS&T meeting.