

2007 Acta Materialia, Inc. J. Herbert Hollomon Award



The 2007 Acta Materialia, Inc. J. Herbert Hollomon Award has been awarded to Prof. Diran Apelian, Howmet Professor of Engineering and Director of the Metal Processing Institute at Worcester Polytechnic Institute, Worcester, MA. Prof. Apelian was selected by an international committee of judges

appointed by the Board of Governors of Acta Materialia, Inc. The award recognizes outstanding contributions to interactions between materials science and technology and societal interests and/or contributions to materials technology that have had a major impact on society.

Dr. Apelian received his B.S. degree in Metallurgical Engineering from Drexel University (1968) and his Doctorate in Materials Science and Engineering from MIT (1972). After graduating from MIT, he joined Bethlehem Steel's Homer Research Laboratories where he co-developed the Ultra-Form series of high strength low alloy steels. He joined Drexel University in 1976 and held various positions at Drexel, including Professor, Head of the Department of Materials Engineering, Associate Dean of the College of Engineering and subsequently Vice-Provost of the University. He joined WPI in July 1990 as the Institute's Provost, and led the mission of broadening WPI's academic programs and research agenda. After a six-year tenure as Provost he headed the Metal Processing Institute (MPI) at WPI, which is an industry-university alliance dedicated to near-net-shape manufacturing with Centers in metal casting; powder metallurgy; and heat treating. MPI is supported by over 110 corporate partners, as well as funding from private foundations and the federal government. During the last decade MPI has developed into one of the nation's premiere research centers dedicated to near-net shape manufacturing.

Prof. Diran Apelian is widely recognized for his innovative work in metal processing and for his leadership as a researcher and educator. His research has helped establish mechanisms and fundamentals in metal processing, and helped lay the foundations for significant industrial developments. In particular, his work in the fields of molten metal processing, plasma processing, spray casting, and shape casting of aluminum alloys can be described as pioneering work. A characteristic of Prof. Apelian's work is that his scholarly output is readily utilized by the industrial sector. Much of today's industrial developments in shaped aluminum castings have been influenced by the work of Prof. Apelian and his students. Apelian has a unique talent for building bridges between the industrial and academic communities, and for identifying fundamental scientific issues holding back the development of a given technology. He has over 400 publications to his credit and eleven books, which he has written or co-edited.

For his achievements, Prof. Apelian has been honored with a number of awards. These include the Howard Taylor Gold Metal in 1987 by AFS as well as the Scientific Merit Award of AFS (1990); he is a Honorary Member of NADCA. In 1990 Apelian received ASM's Henry Marion Howe Medal for the best paper or series of papers in Metallurgical Transactions by AIME. In March 1992, at the AIME Annual Meeting, he received the Champion H. Mathewson Gold Medal for his contributions to the literature. He was awarded an Honorary Doctorate and was named Honorary Professor of Northwestern Polytechnic University in Xian, China, in 1997. He is an Honorary Member of the French Materials Engineering Society-SF2M (2000). He is a Fellow of ASM, APMI and TMS, and was the recipient of the Bruce Chalmers Award in 2006 awarded by TMS. In 2006 WPI recognized Apelian with the Board of Trustees' award for Outstanding Research and Creative Scholarship.

Prof. Apelian is member of various professional societies including TMS, ISS, MRS, ASM, AFS, NADCA, and MPIF. Dr. Apelian serves on several corporate boards, as well as on the strategic/science councils of several global corporations. His contributions to Howmet Corporation led to the establishment of the Howmet Chair Professorship at WPI, a chair that

he currently holds. He has served on, and chaired, several National Materials Advisory Boards for the National Research Council. Apelian is a Trustee of Norwich University in Vermont and has served on MIT's and Drexel University's Advisory Committees. He was Chief-Editor of the web-based *Journal of Light Metals*, serves on the Editorial board of the *International Journal of Cast Metals Research*, and the *Encyclopedia of Materials Science and Engineering*.

Prof. Apelian chaired the Public and Government Affairs Committee of TMS (1998-2002), and is an active advocate for Materials Science and Engineering (MSE) specifically as it pertains to global issues. In 2004 he delivered the Distinguished Lecture on Materials and Society at the ASM-TMS Congress, and continues lecturing on such issues around the world. In 2005 he was invited to address the Norwegian Research Council about MSE's role in ensuring a sustainable planet.

The Acta Materialia, Inc. J. Herbert Hollomon Award was established in memory of Dr. Hollomon and his dedication to promoting positive societal 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 are either outstanding career contributions to understanding of the relations between materials technology and societal interest or contributions to materials technology that have had major impact on society.

Prof. Apelian was selected from among the nominees by a distinguished international panel of judges. The Acta Materialia, Inc. Hollomon Award will be presented to Prof. Apelian during the week of February 25, 2007 at the TMS Annual meeting in Orlando, FL.