

## 2006 Board of Trustees' Award for Outstanding Research and Creative Scholarship Recipient

### Professor Diran Apelian

Diran Apelian, the Howmet Professor of Engineering, is an internationally known leader in materials processing and powder metallurgy and has pioneered semi-solid and molten metal processing, the filtration of metals, plasma deposition, spray casting and aluminum foundry among other metallurgical techniques. Many of his papers describing these methods are regarded as seminal works in the field, particularly in the area of metal microstructure and its relationship to processing.



Professor Apelian's scholarly record is truly prolific and provides substantial evidence of his impact on the field. He has published more than 400 articles on his research and written or edited 11 books, and advised 20 Ph.D. students, 40 MS students, 17 post doctoral associates and many undergraduate projects. Further evidence of his stature in the field is his participation on numerous university and industrial advisory boards and his leadership on the editorial boards of seven scholarly journals. Professor Apelian has also been the recipient of many awards and honors, most notably the Bruce Chalmers Award from The Minerals, Metals and Materials Society (TMS), the Howard Taylor Gold Medal from the American Foundry Society, the Howe Medal from the American Society of Metals, the Champion H. Mathewson Gold medal (TMS), the Albert Sauveur Award (TMS) and most recently, he was notified that he will receive the 2007 J. Herbert Hollomon Materials and Society Award from the Board of Governors of Acta Materialia. In 2006, he was named a Fellow of the TMS, an honor bestowed on superbly qualified scientists who have had an enormous impact on materials science and technology, in recognition of pioneering research in materials processing and outstanding leadership in materials education and industrial outreach.

In 1996, Professor Apelian was named as the Director of the WPI Metals Processing Institute and it has been through the MPI that, in part, he has demonstrated his leadership in bridging the science and technology of metals casting. A colleague noted that Professor Apelian is not just interested in advancing our knowledge and inventing new processes but in transforming the industry, and through the MPI he has been successful. The MPI was established as an industry-university alliance dedicated to near-net-shape manufacturing with centers in metal casting, powder metallurgy and heat treating. The MPI boasts more than 125 corporate members who benefit directly from Professor Apelian's knowledge, research and leadership in the field. For example, the president of a multinational corporation manufacturing stabilized

aluminum foam holds Professor Apelian as a trusted advisor for the company's technical, strategic and commercial efforts, describing him as a 'wonderfully methodical, highly knowledgeable technical advisor' who "has helped me shape the company's business priorities" and "through WPI's Advanced Casting Research Center, provided access to a broad range of seasoned industry players". Furthermore, Professor Apelian is described as "incredibly generous with his time and knowledge".

In recognition of his many significant contributions to the field of materials processing and powder metallurgy, for his transformation of the field of metals casting and for his leadership in bridging the science and technology of metals casting, it is with great pride that Diran Apelian is named the recipient of the 2006 Board of Trustees' Award for Outstanding Research and Creative Scholarship.