



## **William G. Davenport**

2007 Medal of Merit Recipient

William G. Davenport is Professor, Extractive Metallurgy, Department of Mining and Geological Engineering, College of Engineering at the University of Arizona. He is considered to be among the top two or three academics in the world in the application of thermodynamics and process engineering principles to extractive metallurgical processes. His interest and expertise is in the smelting of copper, nickel, and lead concentrates with the objective of maximization of sulfur dioxide strength, smelting rate, and metal recovery with minimum energy consumption. Southwest U.S.A. smelters produce more sulfuric acid than metal.

While an American citizen today, Professor Davenport was born in the gold mining community of Bralorne, British Columbia, Canada. He received his first two degrees in metallurgical engineering at the University of British Columbia, finishing with a Ph.D. from the Royal School of Mines, University of London and a D.I.C. from Imperial College. He began his teaching career at McGill University in Montreal in 1964, where he rose to full professor and Associate Dean of the Faculty of Engineering. He came to the University of Arizona in 1981 as Professor and Head of the Metallurgical Engineering Department.

Professor Davenport is best known from his textbook, *Extractive Metallurgy of Copper*, which is now in its 4th printing in both English and Spanish. In addition, he has published a number of other books: *The Iron Blast Furnace, Theory and Practice*, which was published in English, Russian, Chinese, Japanese and Spanish; *Flash Smelting - Analysis, Control and Optimization*, which is now in its 2nd printing; and *Sulfuric Acid Manufacture - Analysis, Control and Optimization*. He is currently writing *Extraction of Nickel, Cobalt and Platinum Group Metals* and also has numerous scholarly publications resulting from his research in the fields of flash smelting, leaching and solvent extraction, electrowinning and electrorefining. He holds a number of Canadian and U. S. patents in the plating and purification of metals. Professor Davenport has been recognized by a number of the international professional societies in his field and has received a number of professional awards, including being named as the AIME “Extractive

Mining Foundation of the Southwest  
American Mining Hall of Fame

Metallurgy Lecturer” in 1983 and receiving the AIME “Mineral Industry Educator of the Year Award” in 2003. He was made a fellow of the Canadian Institute of Mining, Metallurgy and Petroleum in 1991. Professor Davenport has an extensive consulting practice that has included Union Carbide Corporation, Duval Corporation, Phelps Dodge Corporation, Codelco-Chile, ENAMI-Chile and has been an advisor to the World Bank. He currently works with EHP Consulting here in Tucson.