



Lee Semiatin

Dr. S. Lee Semiatin, a member of the scientific and professional cadre of senior executives, is a Senior Scientist in Materials Processing and Processing Science, and research leader of the Metals Processing Group, Materials and Manufacturing Directorate, Air Force Research Laboratory, Wright-Patterson Air Force Base, Ohio. In this position, he is responsible for formulating and leading the Air Force research and development program in the processing of metals and associated modeling and simulation techniques. He assists other AFRL directorates and Air Force system program offices in solving processing problems for aircraft and space systems.

Dr. Semiatin worked at Battelle Memorial Institute from 1978 to 1991 prior to joining the Air Force. At Battelle he conducted and directed assorted processing-related programs for many government and industrial clients. Much of his government-sponsored work was for the Air Force Materials Laboratory and the Air Force Office of Scientific Research. This included basic studies on flow localization phenomena in various aerospace alloys and the fundamentals of material behavior during deformation processing. Programs for industrial clients focused heavily on developing new products and processes for numerous conventional and advanced alloys for the automotive, appliance, aerospace and other industries. In June 1991, Dr. Semiatin joined the Materials Directorate as senior scientist in the Metals, Ceramics and Nondestructive Evaluation Division, and as research leader of the Processing Science Group. Under his direction, the group conducts basic and applied research and development in four major areas: the processing of conventional and emerging metallic/intermetallic alloys and hybrid materials; physics-based modeling techniques for microstructure prediction and control; novel characterization techniques; and novel processes. This work has led to the development of various new forging, extrusion and rapid heat treatment processes, a number of which are utilized on a production basis. The science-based processing tools whose development he has led are now widely used throughout the aerospace industry. In addition, he consults regularly with many manufacturing vendors on material processing problems which affect Air Force systems.

Dr. Semiatin is also an adjunct professor at the Ohio State University, the University of Dayton, and Wright State University in which capacity he has advised numerous graduate-level and doctoral program students in their thesis research, often on important Air Force topics. Dr. Semiatin is the author and co-author of more than 300 technical papers, 25 limited-distribution reports, and three books. He has edited a variety of handbooks and conference proceedings. In addition, he holds eight U.S. patents related to processing