

In Memoriam—Ared Cezairliyan (1934–1997)

Dr. Ared Cezairliyan, an internationally acclaimed physicist in the field of high-temperature thermophysics and the founding editor of the *International Journal of Thermophysics*, died suddenly and unexpectedly on October 28, 1997, shortly after he had delivered an invited lecture at the Joint International Thermal Conductivity Conference and International Thermal Expansion Symposium in Pittsburgh, Pennsylvania.

Ared was born of Armenian parentage on May 9, 1934 in Istanbul as the only son of Onnik and Valantin Cezairliyan. Already, during the years that he received his elementary education in “Nor Tibrotz,” he established a reputation as a truly outstanding student, a reputation which was still vivid eleven years later when his future spouse, Sylvia Papazian, attended the same school. Since Ared later would become the founding editor of the *International Journal of Thermophysics*, it is interesting to note that at “Nor Tibrotz” Ared founded a school journal called the “Eagle.” Ared published this journal with all the text written by hand.

After receiving his secondary education at the Mighitaryan Lycee, another Armenian School, Ared became a student at Robert College in Istanbul. While studying engineering as his major subject, Ared demonstrated an eclectic interest in a variety of subjects including philosophy and the creation of a universal language. In addition, he practiced the arts and produced a number of artistic woodworking pieces, undoubtedly inspired by his father who was a sculptor. In 1957, Ared graduated from Robert College with high honors, with a B.S. degree in mechanical engineering.

As a next step, Ared came to the United States to pursue graduate studies in mechanical engineering at Purdue University. There he received his M.S. degree in 1960 and his Ph.D. degree in 1963 under the guidance of Yeram S. Touloukian who became his mentor and who had a great impact on Ared. Ared admired Touloukian throughout his life, and Ared was the primary mover in establishing the Yeram S. Touloukian Award of the Heat Transfer Division of the American Society of Mechanical Engineers to recognize outstanding contributions to the field of thermophysical properties.

Upon completion of his doctorate, Ared received an appointment as a research physicist at the National Bureau of Standards (presently the National Institute of Standards and Technology), an agency of the U.S. Department of Commerce, in Washington, D.C. At the National Bureau of Standards, Charley W. Beckett, who was at the time Deputy Chief of the Heat Division, assigned to Ared the task of developing a program in "High-Speed Thermophysical Measurements." Ared did pioneering work in the field of measurements of thermodynamic and transport properties of metals and alloys at high temperatures with dynamic techniques. He founded what is now a world-renowned Dynamic Thermophysical Measurements Laboratory. His contributions include design and development of novel systems for the high-speed (millisecond and microsecond resolution) measurements of several thermophysical properties (specific heat, electrical resistivity, hemispherical total emissivity, normal spectral emissivity, thermal expansion, melting temperature) of materials at high temperatures (1000 to 5000 degrees Celsius). These systems, unique facilities in the world, have generated highly accurate data on the thermal properties of refractory materials at high temperatures of interest to nuclear energy, aerospace, and related high-temperature technologies. His most recent research involved the development of new computer-controlled high-speed optical techniques for measurements of thermal and related properties of metals and industrially significant complex alloys at high temperatures.

Over the years, Ared's laboratory acquired a truly international reputation and attracted many distinguished visitors from abroad, including F. Righini, G. Ruffino, R. Taylor, K. G. Maglic, T. Baba, E. Kashnitz, T. Matsumoto, and many others.

Ared has participated in numerous conferences in North America, Europe, and Asia and has presented over one hundred invited and contributed papers on his research. He has more than 140 scientific publications including several chapters in technical books. Among the books that he has co-edited is the two-volume *Compendium on Thermophysical Property Measurement Methods*, the most comprehensive work in its field. He has been involved in the organization of many national and international conferences on thermophysics and in the preparation of their proceedings. In 1980, he founded the *International Journal of Thermophysics* and served as its Editor-in-Chief until his death. Ared received many major awards from various national and international scientific, academic, and industrial organizations for his pioneering and extensive contributions to the field of thermophysics, including the Silver Medal (1975) and Gold Medal (1980) of the U.S. Department of Commerce, a Distinguished Alumnus Award of Purdue University (1978), the Heat

Transfer Memorial Award of the American Society of Mechanical Engineers (1981), the Gold Medal of the French High-Temperature Society (1982), and the IR-100 Award from Industrial Research and Development Magazine (1983), a Thermal-Conductivity Award from the International Thermal Conductivity Conference (1987), a Special Award from the Japan Society for Thermophysical Properties (1989), and an Outstanding Mechanical Engineer Award from the School of Engineering at Purdue University (1991). There is little doubt that for Ared the high point of his career occurred in June 1997, when he received the Yeram S. Touloukian Award, named in honor of his beloved mentor, at the Thirteenth Symposium on Thermophysical Properties held in Boulder, Colorado.

Ared was not only an internationally acclaimed scientist, but through his personality, which had a delicate and effective mixture of charm and determination, he has united and strengthened the international research community in thermophysics. I would like to mention to his wife Sylvia and son Brent that Ared has made an impact on the thermophysics community which, in my opinion, has been even greater than that of his mentor, Y. S. Touloukian. And working closely with Ared over more than two decades has been a privilege for me that I shall never forget.

J. V. Sengers
Associate Editor