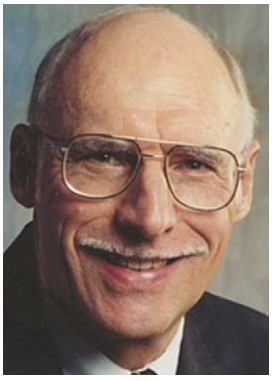
Available online at www.sciencedirect.com
SCIENCE DIRECT®
International Journal of Heat and Mass Transfer 49 (2006) 447–448
International Journal of HEAT and MASS TRANSFER
www.elsevier.com/locate/ijhmt

Personal report

Professor Arthur E. Bergles on his 70th birthday



In a career that has spanned nearly five decades, Professor Arthur E. Bergles has been a pioneer in the field of convective and ebullient heat transfer, engineering practice and education, and perhaps the most ardent and internationally well-known articulator of the science and engineering of enhanced heat and mass transfer. August 9, 2005, marks the seven-decade milestone of his dedicated life, and it gives us great pleasure to felicitate him and celebrate this day along with his many colleagues, friends, and students all over the world. On his part and in his own inimitable modest ways, Art feels very honored to have been given extensive write-ups on the occasion of his 60th [1,2] and 65th [3] birthdays. Although he says that he is "slowing down", he has been keeping very busy and quite productive, and is delighted to reach his 70th birthday. Some prominent highlights of the past five years of his illustrious life and career are indeed worth noting.

Art is the Clark and Crossan Professor of Engineering, Emeritus, at Rensselaer Polytechnic Institute, Troy, NY. Also, he continues to hold adjunct appointments as Glenn L. Martin Institute Professor of Engineering at the University of Maryland, College Park, MD, and as senior lecturer in Mechanical Engineering at Massachusetts Institute of Technology, Cambridge, MA. His research has surely gotten "smaller", specifically, microchannels. His most recent paper (with S.G. Kandlikar [4]) is directed at explaining the nature of critical heat flux in microchannel heat sinks. With R.M. Manglik, he has resumed the survey of literature on convective heat transfer enhancement [5]. The total number of papers and reports worldwide that are added annually to this bibliography is now around 400, a number predicted by Art Bergles in 1996.

A staunch believer in international co-operation, Art has had significant activities with Bosnia–Herzegovina, Bulgaria, China, Slovenia, Switzerland, and Ukraine. He was honorary co-chairman of the International Symposium on Heat Transfer Enhancement and Energy Conservation, held in Guangzhou, China, in January 2004. He co-chaired the Second International Thermal Science Seminar, which took place in Bled, Slovenia, June 2004. Most recently in May 2005, Art was visiting lecturer in heat transfer at the Federal Institute of Technology, Lausanne, Switzerland.

Most of all, he believes in the future of the thermal sciences, in general, and heat transfer, in particular, and has taken several actions to promote the field. Art and his family endowed the Bergles Professorship in Thermal Sciences at Iowa State University, Ames, IA, where he was active for 14 years. The first Bergles professor was named in 2003, and the Bergles Symposium on Thermal Sciences was held at ISU in October of that year. With Professor Warren M. Rohsenow, Art's dissertation advisor at MIT, the Bergles–Rohsenow Young Investigator Award in Heat Transfer was established as an ASME society award, and the first award was given in November 2004.

One of Art's activities in recent years, building on his hobby of photography, has been to develop slide shows to honor friends and colleagues. These were presented at the Rohsenow Symposium in 2003, the Chu Symposium in 2003, the Kraus Symposium in 2004, and the Mikic Symposium in 2005.

doi:10.1016/j.ijheatmasstransfer.2005.07.017

Over the years Art Bergles's accomplishments have not gone unnoticed. He has been recognized by professional societies and universities throughout the world. He is a Fellow of seven societies, was awarded two honorary degrees, was given the major awards in heat transfer (Heat Transfer Memorial, D.Q. Kern, Max Jakob, and Luikov awards), and was elected to the US National Academy of Engineering and the UK Royal Academy of Engineering. More recently, he received the Nusselt–Reynolds Prize of the Assembly of International Conferences in Experimental Heat Transfer, Fluid Mechanics, and Thermodynamics (2001), was elected to the Academy of Sciences and Arts of Slovenia (2001), made Honorary Professor at Beijing Polytechnic University (2001), given the ITherm Achievement Award of the Intersociety Conference on Thermal and Thermomechanical Phenomena in Electronic Systems (2002), received the Holladay Distinguished Fellow Award from ASHRAE (2002), given an International SFT Award by the French Thermal Society (2002), elected to the exclusive Italian National Academy of Sciences (2003), and named the Hines Lecturer at the University of Florida (2004).

Art continues to be very busy in a variety of professional activities. He notes that all of his activities are "low level", but there are so many of them that, integrated, they constitute a major commitment. In spite of this, Art and his wife, Penny, are now taking real vacations (snorkeling in the Caribbean, and skiing in Colorado), and spending more time with their grandchildren who now number three grandsons. Also, Art is always particularly pleased to keep in contact with former students, and learn that they are doing well. Contemplating his life's journey, he contends that getting older is indeed like riding a bicycle: if you do not keep peddling, you will fall; and he says that he is certainly peddling harder these days in an attempt to keep up with the accelerating pace of change. May he peddle far and in good health in this remarkable and inspirational excursion, as we wish him a very happy 70th, with many, many more returns of the day!

References

[1] R.M. Manglik, M.K. Jensen, A. Bar-Cohen, A.D. Kraus, Arthur E. Bergles, in: R.M. Manglik, A.D. Kraus (Eds.), Process, Enhanced, and Multiphase Heat Transfer, Begell House, New York, NY, 1996, pp. xi–xxxi.

[2] M.K. Jensen, R.M. Manglik, A. Bar-Cohen, J.P. Hartnett, W.J. Minkowycz, Professor Arthur E. Bergles on his 60th birthday, International Journal of Heat and Mass Transfer 39 (10) (1996) 2007–2008.

[3] R.M. Manglik, A pioneer, advocate, and articulator of the science and engineering of enhanced heat transfer: Professor Arthur E. Bergles on his 65th birthday, Journal of Enhanced Heat Transfer 8 (2) (2001) 73–76.

[4] A.E. Bergles, S.G. Kandlikar, On the nature of critical heat flux in microchannels, Journal of Heat Transfer 127 (1) (2005) 101–107.

[5] R.M. Manglik, A.E. Bergles, Enhanced heat and mass transfer in the new millennium: a review of the 2001 literature, Journal of Enhanced Heat Transfer 11 (2) (2004) 87–118.

R.M. Manglik
Department of Mechanical, Industrial and Nuclear Engineering
University of Cincinnati
598 Rhodes Hall
P.O. Box 210072
Cincinnati
OH 45221-0072
United States
Tel.: +1 513 556 5704; fax: +1 513 556 3390
E-mail address: Raj.Manglik@uc.edu

J.P. Hartnett
W.J. Minkowycz

Available online 26 September 2005