

## Professor em. Dr.-Ing. Dr.-Ing. E. h. mult. Franz Mayinger on his 80th birthday

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Professor Mayinger will celebrate his 80th birthday on 2nd September. He is the former Editor in Chief of this journal and since 1999 he still serves as Honorary Editor giving advices to the editorial staff and to many authors. He is one of the leading authorities in the fields of thermodynamics, heat and mass transfer, multiphase flow, combustion as well as in energy engineering and in particular in nuclear reactor engineering. With his outstanding contributions to this broad field of basic engineering subjects which he first named thermo-fluid dynamics, he still gains much respect and admiration from colleagues all over the world. His outstanding contributions are innovative developments of new optical and many different nonintrusive measurement methods for single and multi-phase flows. With

applications of real time and two-wave interferometry, he contributed to heat and mass transfer for boiling as well as combustion phenomena. His experimental results from applying optical tomography and Raman-spectrographic methods for the analysis of ignition and turbulent burning processes in flames and diesel engines mark the basic knowledge for the design of a new generation of automobiles.

Professor Mayinger was born in Augsburg. He graduated from the Technical University of Munich as Diplom-Ingenieur in Mechanical Engineering in 1955. Afterwards he became a scientific assistant to the Institute of Thermodynamics which was chaired at that time by Prof. Ernst Schmidt. In 1961 he received his degree as Doktor-Ingenieur and left the University in order to take a management position in the research department of the Maschinenfabrik Augsburg Nurnberg MAN. There he got first involved into the rapidly expanding nuclear industry.

In 1969 he took the call for the full professorship at the Leibniz University of Hannover. There partly in succession of Prof. Hausen, he built up the Institute of Process Engineering (Verfahrenstechnik). In 1981 after declining several calls to highly ranked management positions in industry and to the Universities of Stuttgart and Karlsruhe, he returned to the TU Munich. There he worked until 1999 as full professor and director of the Institute of Thermodynamics, which was previously held by W. Nusselt, E. Schmidt and U. Grigull.

Although officially retired, since 1999 he still runs a busy schedule filled with many activities ranging from the advice to government in educational issues as well as in conceptual planning for energy consumption and energy resources. He is also active in evaluating national and international research strategies and programs. At the University of Bayreuth he served as Dean establishing the

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newly founded Faculty of Applied Natural Sciences and later on as the Chairman of the Advisory Board (Hochschulrat). In 2009 he became Honorary Member of the Senate of the University of Bayreuth.

While he was still active he contributed his knowledge and scientific experience to many national and international academic and governmental associations and committees. Only a few activities can be mentioned here: he served as a member of the Nuclear Reactor Safety Commission at the Federal Department of Environment in 1971/1992 which he chaired in 1983/1984 and 1990, later he chaired the Commission of Accidents and Failures at the same Federal Department 1992/1996. He also served as a member of the Senate of the German Science Foundation (DFG) in 1977/1981 and the Advisory Board for Science of the Federal Government of Germany in 1991/1997. He was the founder of the Bavarian Elite Academy and served as its first Scientific Chairman in 1998/2002. In recognition of these outstanding efforts prestigious awards were granted to him: he holds the first class ranked Order of Merit of the Federal Republic of Germany and the Bavarian Service Cross.

Professor Mayinger has given scientific and educational guidance to more than 120 young researchers who worked with him on their PhD-thesis in Hannover and Munich. He is author or co-author of more than 350 papers in journals, as monographs and conference proceedings; among them seven books on thermodynamics, multiphase flow and optical measurement techniques. In recognition of his

outstanding contributions to the field of thermal sciences and thermofluidynamics many prestigious awards were granted to him. In 1991 the Max Jacob Award was bestowed on him, Honorary Doctorates he received in 1994 from the University of Hannover and in 2006 from the University of Bayreuth. The ‘‘Pro Meritis’’ Medal of the Bavarian Government was awarded to him in 1998 and 2 years later in 2000 the Ernest-Solvay Price honoured his outstanding contributions to the field of process engineering. He is an elected member of the Bavarian Academy of Sciences and he holds the Maximilian Medal which is the highest acknowledgement from the state of Bavaria.

It is far beyond this laudation to mention all the facets and highlights of Prof. Mayinger’s life in science and industrial related research and developments. All who know him well are impressed by his competent advices, his leadership and compromising suggestions for complicated strategic decisions. All friends and colleagues the international community of this journal and especially his scholars and friends would like to congratulate him on the occasion of his 80th birthday. They all wish many more active years in good health and happiness with his wife Franziska, his children and grandchildren. They all know him not only as an outstanding creative scientist and political advisor whose roots based in experimental thermo-fluid dynamics have grown within more than 50 years of active experience into all kinds of industrial and technology but also as a sympathetic, humorous and helpful expert, teacher and colleague who many of us know as a very good friend.