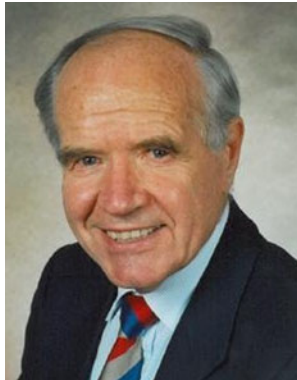


## Professor Dr.-Ing. Dr.-Ing. E.h. mult. Karl Stephan on the occasion of his 80th birthday

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Professor Karl Stephan will celebrate his 80th birthday on November 11, 2010. You are still able to meet him at his office. Asking him about his present activities, he will answer, that he still does what he always did with much pleasure and enthusiasm in the past years: heat and mass transfer with phase change in multicomponent mixtures, thermophysical properties of multicomponent mixtures, energy transformation processes including their applications particularly in refrigeration. He will be proud about the recent appearances of the revised editions of the two volume textbook on “Thermodynamik—Einstoffsysteme”, (18th edition in 2009) and “Thermodynamik—Mehrstoffsysteme und chemische Reaktionen” (14th edition in 1999) as well as the very well known book, which he wrote together with

Professor Baehr on “Wärme- und Stoffübertragung” and which was published as sixth edition 2 years ago. There is also the second edition of the English version “Heat and Mass Transfer” in 2006. Together with the excellent textbook “Wärmeübergang beim Kondensieren und Sieden” (1988), which was translated and published in English titled “Heat Transfer in Condensation and Evaporation”, the books announce to the heat transfer community the outstanding contributions of a most active, creative and innovative research and teaching career characterised by the highest scientific and pedagogical standards.

There are many more manuscripts published by highly rated international journals, which mark the aim of Professor Stephan’s research work and which are particularly dated from the last 15 years, the years of his retirement. It is the combination of the field of basic engineering sciences in thermodynamics of multicomponent mixtures with that of heat and mass transfer which provides the engineer with the understanding and solution of engineering problems for the energy and raw materials converting industries. Both branches of engineering provide the basic knowledge for most of the processes occurring in energy and process technology.

Professor Karl Stephan started his career as an engineer at the Technische Hochschule Karlsruhe in the stimulating surrounding of mentors like Plank and Nesselmann. After completion of his studies in Mechanical Engineering, he received his diploma degree in 1956 and became research assistant to the Institute of Thermodynamics and later on chief engineer to the Institute of Refrigeration Engineering. His Dissertation on “heat transfer and pressure loss in the entrance region of laminar pipe flow” marked the first theoretically based solution which is still valid and frequently cited. He received the degree of Dr.-Ing. in 1959. Four years later he published his basic results on “heat

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transfer in boiling” in fulfilment of the requirements of his habilitation for the lectureship in Thermodynamics.

After his 4-year-lasting career in the industry, he took the call to the Technical University of Berlin. There he built up a newly founded Institute of Thermodynamics, which in cooperation with the Institute of Chemical Engineering run by Professor Brauer was the basis for the high standards of the education at the TU-Berlin in the middle of the 1960s. Professor Stephan’s first lectures on thermodynamics of multicomponent mixtures are still in our minds, because they marked a new start into the field of numerical calculation of phase equilibria as bases for the design of separation processes at that time. This cooperation came to an end with the reorganisation of the faculties at the TU-Berlin because of political activities in line with the university reorganisation all over the country at that time. In 1970 Professor Stephan went to the University of Bochum for the next 5 years. Finally in 1975 he succeeded Professor Glaser at the “Institut für Thermodynamik und Thermische Verfahrenstechnik” at Stuttgart University, where he retired in 1996 from the position of institute director. Still active, he is presently guiding his 78th PhD-Student and working on his 273th publication.

Professor Stephan contributed his knowledge to many national and international committees. Probably the most outstanding are the presidency of the Eurotherm Committee, the election to the senate of the Deutsche Forschungsgemeinschaft and to the assembly of mechanical engineering faculties of German technical universities (Fakultätentag). He received numerous prestigious awards

in recognition of his outstanding scientific reputation. The most remarkable ones are the Arnold-Eucken-Preis at the age of 35 years and later in 1992 the Arnold-Eucken-Medal in commemoration of his lifetime achievements in education and research. The most prestigious honours are related to his first assignment in Berlin and demonstrate his esteem and respect in the scientific world. In 1987 Professor Stephan became a member of the Akademie der Wissenschaften zu Berlin (West), which was closed after the reunification of Germany in 1990 and newly founded in 1993. In the same year Professor Stephan became a member of the new Berlin-Brandenburgische Akademie der Wissenschaften, which relates back its roots to Leibniz and the former Academy of Prussia. Two honourable doctor degrees were awarded to Professor Stephan, in 1993 by the Technische Universität Berlin and in 1994 by the Martin-Luther-Universität Halle-Wittenberg.

This birthday laudation will only mention a few facets and highlights of Professor Stephan’s life for science and technology research. In conversations with him we all enjoy his clearly voiced and well founded opinions as basis for decisions in personnel or research related politics as well as his outstanding creativity as scientist in the fields of thermodynamics and heat and mass transfer. We honour a sympathetic and benevolent supervisor, teacher, doctor father and, above all, a good friend.

In the name of all authors of this journal we wish Professor Karl Stephan all the best for his 80th birthday, many happy returns in good health, many new ideas and much pleasure in the surrounding of his family.