Special issue dedicated to Prof. Dr.-Ing. Dr.-Ing. E.h. mult. Karl Stephan on his 80th birthday

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New technologies and processes demand new research in heat and mass transfer as well as the economically and ecologically efficient use of energy and natural resources cause new tasks in the fundamental understanding to heat and mass transfer. Therefore, it is not surprising that the journal Heat and Mass Transfer is of increasing interest in the scientific and technical community engaged in heat and mass transfer research and applications.

The special issue is dedicated to Prof. Dr.-Ing. Dr.-Ing. E.h. mult. Karl Stephan as recognition to his lifetime work devoted to heat and mass transfer in the last decades. Due to his outstanding contributions to the international research and teaching he is extremely esteemed in the world wide community of scientists working in heat and mass transfer, thermodynamics, energy technique and of course refrigeration technique. In the last mentioned field another special issue will be published in the International Journal of Refrigeration.

His former disciples, his colleagues and his friends dedicate the papers published in this special issue to him. The articles were peer reviewed for publication in Heat and Mass Transfer and reflect a spectrum of topics of his former and current interest in heat and mass transfer in a wide range. The papers include presentations on the following topics: mass diffusion, heat exchanger, mixed convection, heat transfer with phase change in pure fluids and mixtures, fouling, energy storage and multiphase flow. The first paper is unusual for Heat and Mass Transfer, but it may introduce another point of view of our daily research and its consequences.

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Andrea Luke, Editor-in-Chief, Heat and Mass Transfer, September 2010.

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