



## Professor Franz Moser: Shaping Chemical Engineering over 30 Years in Austria

Chemical engineering research and education in Austria is closely linked to the name of professor Franz Moser. Appointed to the first chemical engineering chair in Austria in 1966, Franz Moser shaped the way chemical engineering is perceived and pursued in Austria over an astonishing, dynamic and fruitful time span of some 30 years.

Born in Graz on 17<sup>th</sup> February 1928, Franz Moser studied technical chemistry at the Technical University Graz and at Princeton and wrote his dissertation under the supervision of professor Hüttig, investigating the influence of grinding of metals on the quality of sintered materials. 1953 he left the university of Graz to pursue a career in industry. This career led him from Germany to the Netherlands back to Austria and from the apparatus engineering to production and development of processes.

Franz Moser spent the forming years of his industrial career with Shell in the Netherlands. He rose through the ranks of this multinational company, from research to production, finally being charged with the operation of one of the largest chemical plants of Shell. The foundation of his wealth and breadth of experience in chemical engineering was laid during this ten years with Shell.

After returning to Austria and joining then state held VOEST for about a year, Franz Moser was appointed to the first chair in chemical engineering at an Austrian university in 1966. His new position required him to build a chemical engineering curriculum from scratch as well as to start research in this field. On both counts Franz Moser was remarkably successful.

In his role as educator Franz Moser leveraged all his experiences from different fields of chemical engineering, gathered throughout his industrial career. This experience helped him to create a modern and versatile curriculum of chemical engineering at the Technical University of Graz. It is a proof to his foresight that most other Austrian universities that have over the years adopted chemical engineering curricula following the Graz example had emulated this curriculum.

Throughout his work at the university, Franz Moser was concerned with improving the problem solving ability of his students. A hallmark of his ten-

ure was his ceaseless quest for innovation in chemical engineering education. This included the development of new teaching methods stressing teamwork and increasing the ability of students to tackle and solve complex problems on their own. It also included the integration of innovative fields like environmental protection into the curriculum at a time not many other universities had reacted to these changes.

The researcher Franz Moser always was driven by broad scientific curiosity. He always was attracted to pristine research fields, problems that required originality as well as broad experience. His scientific endeavours therefore left their marks in as diverse fields as reaction engineering, waste water treatment and energy technology. One of the most distinguishing features of Franz Moser's scientific work was his sound sense of judgment as to the prospects of an innovative research field: He started research into heat pump working fluids at a time when new fluids were in desperate need because of ozone depletion problems with conventional CFC media. He also sensed the necessity to investigate sustainable development early in the 1990ies, making the Technical University Graz an early starter of international scientific endeavours in this wide field.

His interests however went far over the narrow focus of his university or his scientific field. He actively supported closer co-operation between chemical engineers in the Alpe-Adria region, thus laying also the fundament for the success of CABEQ. In scientific terms his interest in deep philosophical questions led him to publish critically acclaimed books about the advent of a new scientific paradigm bringing the scientific findings of quantum mechanics, chaos theory and the theory of self organisation in connection to the wisdom of old philosophical schools. This topic keeps Franz Moser still busy in retirement.

Professor Franz Moser completes his 75<sup>th</sup> year these days. This is an appropriate opportunity to remember the work of one of the shaping figures of chemical engineering in Austria and a colourful and creative research personality. We wish professor Franz Moser many more years to satisfy his hunger for knowledge and wisdom.