

In memoriam Werner Lindinger



The scientific community lost a great friend and colleague with the tragic drowning of Werner Lindinger in Hawaii on February 16 2001.

Following his Ph.D. degree obtained 1972 in Innsbruck, Werner initiated his professional career as a Max Kade Foundation post doctoral fellow in the NOAA Aeronomy Lab in Boulder from October 1973 to September 1975. His considerable talent and exceptional energy led to an extremely productive period in Boulder. He rigorously exploited the newly developed flowing afterglow technology for the study of thermal and low energy ion-molecule interactions and ion mobilities. This outstanding research activity earned him at an exceptional young age in 1976 the Fritz Kohlrausch prize, the most prestigious award the Austrian Physical Society can hand out.

His warm and outgoing personality led to the formation of many deep friendships in Boulder, many persisting actively throughout his life. His friends were not only in NOAA, but also in JILA and in the Chemistry Department of Colorado University.

Upon his return to the Physics Department at the Science faculty in Innsbruck he was one of the leaders instrumental in developing an atomic and ion physics program that quickly achieved international recognition leading also to a professorship in 1978 at the institute of experimental physics. In 1987 he was elected head of the newly founded institute of ion physics in Innsbruck. Lindinger's group was extremely productive, making important contributions to ion-molecule reaction kinetics as well as original contributions to thermochemistry. A notable example is the series of studies of molecular ion

vibrational quenching in neutral collisions. The first publication of a systematic study on ion vibrational relaxation was an Innsbruck publication in J. Chem. Phys. in 1983, the most recent a publication in J. Chem. Phys. in 2000. These detailed series of investigations led to greatly increased understanding of the mechanistic processes involved.

In recent year Lindinger's interests broadened from gaseous electronics. His group extended the use of ion flow systems to super sensitive detection of trace gases in an on-line, real time manner by developing the "proton transfer reaction mass spectrometry" (PTR-MS) technique. Lindinger and colleagues pioneered its use in a variety of applications in medicine and food analyses, as well as highly time-resolved studies of the emissions from vegetation and biomass burning to the atmosphere. Many research groups around the world are now applying this technique for studies of biosphere-atmosphere interactions. At the time of his death he was in Hawaii for the purpose of installing his instrument at the NOAA Clean Air Baseline Station on the volcanic Mauna Loa mountain.

Lindinger was a co-founder 24 years ago of the „Symposium on Atomic and Surface Physics (SASP)“ held every two years, often in Tyrol but also in other European countries. In recognition of this and also for his scientific achievements Werner received in 1996 the SASP Erwin Schrödinger Award and the Golden Medal of the Comenius University, Bratislava. Moreover, his outstanding scientific achievement (see also below publication list) was recognized in 1997 by the receipt of Austria's highest science award, the Erwin-Schrödinger Prize of the Austrian Academy of Science.

Werner's interest were broad and varied. In addition to his research and teaching he had a lively appreciation of art and music. Like many (most) Tyroleans he was an accomplished skier. He was an avid hiker and a regular tennis player. In recent years he became a serious equestrian, riding in two African safaris.

Werner's extraordinary joy of living made his friendship a rewarding and memorable experience. He will be sorely missed.

Tilman Märk, Innsbruck

Publication list Werner Lindinger

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