

Prof. Dr. Hans-Joachim Seifert on the occasion of his sixtieth birthday



Prof. Dr. Seifert was born in Guben/Niederlausitz, Germany, on November 9, 1930. After World War II his family moved to Wetzlar/Hessen, where he finished high-school in 1949. From 1950 he pursued his studies in chemistry at the Justus-Liebig University in Giessen. He received his Diploma in 1955 and two years later was awarded his doctorate degree for which he conducted research entitled "Preparative and structural chemistry of vanadium halogenides", under the supervision of Prof. Dr. P. Ehrlich.

Hans was planning to devote his scientific knowledge to chemical industry, but his supervisor, who suffered from a prolonged illness, suggested that he continue his work in the academic field and offered him the position of Assistant in Inorganic Chemistry at the University of Giessen. From that time he has been lecturing, conducting seminars and supervising research of undergraduate and graduate students. In June 1963 Hans completed his post-doctoral thesis entitled "Report on the chemistry of halogen compounds of light transition elements at low oxidation levels" and was appointed Lecturer in Inorganic Chemistry at the Justus-Liebig University of Giessen. In 1969 he became Assistant Professor and in 1970, Professor. He served a year as Head of the Chemistry Department at the Justus-Liebig University of Giessen.

Since 1973 he has been Professor of Inorganic Chemistry at the University of Kassel. At this university he has been involved in building the Faculty for Natural Sciences and the Department of Chemistry, first in a program for education of students but since 1984 also for diploma students. For the latter purpose he and his staff are deeply involved in conducting pure basic academic research.

The scientific work of Hans deals with the chemistry of halides and is concentrated mainly on the two following topics:

1. Chemical and structural properties of halides of the transition and lanthanide elements Ti, V, Mn, Mo, W and Eu in different oxidation states (mainly the low oxidations). This covers studies of solution (aqueous or alcoholic) and solid state chemistry, applying techniques such as electrolytic reduction, magnetochemistry, electron spectroscopy and X-ray diffraction. In some cases coordination compounds of these halides with ligands containing O or N were also studied.

2. Chemical and structural properties of double halides with an alkali metal halide (or thallium halide) as one component. It was natural that the second halide was one of the previously mentioned halides which were investigated by Hans along with many others, such as those of Mg, Ca, Sr, Ba, Pb, Cr, Fe, Co, Cd, La and Ce. This investigation included the construction of phase-diagrams of the ternary systems, using differential thermal analysis, solution calorimetry and X-ray structure analysis as well as measurements of thermodynamic functions of the double halides. For the latter purpose a galvanic cell with conductive diaphragms for EMF measurements of solid electrolytes (halides) was developed which enabled the measurement of Gibbs Free energy values of solid state reactions. In this topic Hans filled gaps in the knowledge of the existence of many double salts, hydrated and anhydrous. He has contributed much to the understanding of stability of the double salts and successfully explained why ternary compounds exist.

The most important contribution of Hans to thermal analysis is the advanced techniques which he developed and brought to high accuracy for the investigation and construction of phase diagrams by DTA. His first publication in this field was presented at the Budapest ICTA Congress in 1974. This technique was further developed and for this purpose he built in his laboratory a very accurate DTA system in which one can use relatively large amounts of material and the heating rate is very slow.

For his scientific contribution in thermal analysis he received in 1985 The Kurnakow-Medaille of the Russian Society for Thermal Analysis and in 1987 the NETSCH-GEFTA Award.

He is an active member in the "Gesellschaft für Thermische Analyse" (GEFTA) and in the "International Confederation for Thermal Analysis" (ICTA). He served as President of GEFTA in the period 1977–1980. During this period he promoted the collaboration of German-speaking scientists with foreign scientists and the collaboration of GEFTA with other national thermal analysis societies. He was also an active member of the Organizing Committee of the 6th ICTA Conference, Bayreuth, 1980.

After serving as the Affiliated Councillor of GEFTA in the ICTA Council, he became in 1982 the Vice-President of ICTA and in the period 1985–1988, the President of this International Confederation. The period of his Presidency was a period of changing directions in the activities of ICTA. First of all, it was the start of the activity of our Scientific Committees. During his Presidency the firm ties between ICTA and ESTAC were reestablished and ICTA Council decided to extend the intervals between the International Congresses from three to four years, with the object of dedicating the periods between International Congresses for the strengthening of national and regional activities. He was especially active in the establishment of ties between the thermal analysis groups of Eastern Europe and the West. He collaborated with the Organizing Committee of the 9th ICTA Congress in Jerusalem and was involved in the preparation of this Congress. He also visited Jerusalem in 1987 to meet the local Organizing Committee. In spite of his contribution to the success of the 9th ICTA Congress, Hans could not come to Jerusalem for the Congress, because at that time he was recovering from a heart operation.

I met Hans for the first time in 1980, during the 6th ICTA Congress in Bayreuth. Our collaboration started two years later, in 1982, when he was appointed as ICTA Vice President and I became ICTA Secretary. In 1985, when as an Israeli I had difficulties in obtaining a visa to Czechoslovakia, to participate in ICTA 8th Congress and Council Meeting, he used all his influence as ICTA Vice-President and his personal acquaintanceship with scientists from that country and obtained the Visa for me. This was in line with his belief that science is international and must be above politics. Within a short time our friendship which started on the basis of common activities in the Executive of ICTA, continued in a scientific collaboration and together we studied the synthesis of double halides and their phase diagrams by mechanochemical techniques. In 1990 I had the good fortune of spending half a year in his laboratory in Kassel and enjoyed the warm hospitality of the "Boss" and his team and was able to observe his scientific temperament and ability. First of all, I was impressed by his vast knowledge in general chemistry, something rare in our period, when the specialization of the

scientist must be very deep. But this vast knowledge was not at the expense of his deep and basic knowledge of double salts. I was also impressed by the way he is able to adopt new scientific ideas.

Hans interests are multitudinous. His hobby is German literature and philosophy and he has a vast knowledge of poetry and history. On several occasions during our scientific discussions he quoted classical poems. During weekends he and his lovely wife Tilly took me to visit historical castles and other historical sights in the surroundings of Kassel, and to walk along many forest paths.

On the occasion of his sixtieth birthday, the Editorial Board of the Journal of Thermal Analysis has decided to dedicate a special issue in recognition of his distinguished contribution to thermal analysis. I am grateful to the authors who contributed papers for this special collection. Because of the great number of papers the collection had to be divided into two consecutive issues. In spite of being invited, each paper was reviewed by two specialists. I am grateful to all the referees who performed their reviewing with great dedication, and especially to those who were kind enough to review more than one paper.

We wish Prof. Seifert continued success in his endeavours and continued activity in ICTA.

Shmuel Yariv

ICTA Secretary, Guest Editor of this Special Issue