New ICTAC Honorary Members



Professor Ferenc Paulik

Ferenc Paulik was born in Budapest in 1922. After his school he studied at the Faculty of Chemical Engineering of the Technical University of Budapest, where he graduated in 1944. After a short detour in the industry, he returned in 1950 to his Alma Mater and became a researcher at the Institute for General and Analytical Chemistry. First he got the Ph.D. degree, later the title of doctor of chemical sciences and professor emeritus. He started his research activity in thermal analysis with his brother Jenő under the guidance of the late Prof. L. Erdey.

The scientific career of the Paulik brothers ran parallel for 40 years. As pioneers they developed with the contribution of their coworkers various thermoanalytical methods like derivative thermogravimetry and dilatometry, thermo-gas titrimetry and a simultaneous method combining the above mentioned techniques with differential thermal analysis. In order to increase the resolution of thermoanalyitcal measurements they initiated a new, so-called quasi static technique which enabled to carry out thermogravimetry, differential thermal analysis and differential scanning calorimetry under quasi isothermal —quasi isobaric conditions. These techniques were embodied in an instrument, called derivatograph.

The Paulik brothers are authors of 4 books, 200 papers and holders of 30 patents. In 1974 they received the ICTA Mettler Award from the North American Thermal Analysis Society in 1982 the Kurnakov Medal from the Society of Russian Thermoanalysts.

In 1974 Ferenc Paulik organized the 4th ICTA Conference held in Budapest. He was member in four scientific committees, among others in ICTAC and ESTAC, bearing different positions. He has been member of the Editorial Board of five international journals, including the Journal of Thermal Analysis.



Professor H. J. Seifert

Prof. Hans Seifert was born on November 9, 1930 in Guben/Liederlausitz, as the elder son of Bernhard Seifert, a weaver, and his wife Erna. He lived together with his family (two brothers and one sister) in this East-German town until the end of World War II, when it became part of Poland as a consequence of the Potsdam Conference. The family then left their homeland and resettled in Hessen/West Germany.

He finished high school in 1949 in Wetzlar. After working for one year in a steel plant, Hans Seifert began to study chemistry at the Justus-Liebig University in Giessen. In 1955 he was awarded his diploma —degree and started work on his dissertation, "Preparative and Structural Chemistry of Vanadium Halides" under the guidance of Prof. Dr. P. Ehrlich. In July 1957 he became Dr. rer. nat.

Because of the prolonged illness of Prof. Ehrlich, Dr. Seifert did not start work in industry (as originally planned), but stayed on at the University of Giessen in the position of Assistant. As a substitute for Prof. Ehrlich, he was required to prepare and present lectures and seminars in the field of inorganic chemistry. During this period he supervised the research of the best undergraduate and graduate students. The first of Dr. Seifert's doctoral students to complete his work received his degree in 1961. In June 1963 Dr. Seifert completed his postdoctoral thesis entitled "Report on the Chemistry of Halogen Compounds of Light Transition Elements in Low Oxidation Levels" in the field of "Inorganic Chemistry" and thereby qualified for the position of Lecturer at the University.

In May 1969 he was appointed Assistant Professor, and in June 1970 was promoted to Associate Professor. During the years 1970/1971, Prof. Seifert served as acting Director of the Institute of Organic (!) Chemistry, and afterwards was Head of the Chemistry Department for one year. Since 1973 he has been working as Full Professor of Inorganic Chemistry at the University of Kassel.

His first task at the University of Kassel was to build up a programme of study for education students, and from 1984, for diploma students as well, a function which required a great deal of academic autonomy at the university. During this time, Prof. Seifert was Head of the Faculty of Natural Sciences.

His later direction of research found its origins in his habilitation work. Two main fields of interest can be distinguished:

—The chemistry of transition metal halides in low oxidation levels. This especially involved in investigations of Ti³⁺, V²⁺ and W⁴⁺, in which electrolytic reduction in organic solvents played a central role. Investigations were also conducted in the field of magne-

tochemistry, electron spectroscopy and X-ray structure analysis. The results of this research were published in 22 papers between 1961 and 1980.

—Investigations of the phase diagrams of quasibinary systems of alkalimetal halide/metal(II) halide using differential thermal analysis, solution calorimetry and X-ray structure analysis. These studies resulted in 31 publications up to 1975. Here the design work of Prof. Seifert and his collaborator Dr. G. Thiel was of great importance. It led to the development of measuring cells for DTA and solution calorimetry, and was especially suited to the special properties of anhydrous metal halides. This work resulted, among others, in the most important contemporary method for the measurement of thermodynamic functions of double halides: a galvanic cell with conductive diaphragms to measure the Gibbs free energy (ΔG^0) of solid electrolytes as a function of temperature. This work has been reported in 25 publications since 1981.

During recent years, systems involving lanthanide chlorides have been investigated and new, surprising results concerning the conditions for the existence of their double halides have been obtained.

General questions of importance for thermal analysis have arisen. These questions concern in particular problems the application of DTA, the determination of metastability, and the problem of inhibited solid reactions.

In all of these investigations, the combination of the above-mentioned working principles with X-ray analysis plays an important role, especially with regard to the dynamic high-temperature recording technique, which was dealt with by his research team from the beginning.

It is clear that this research programme has led to the establishment of close contacts with thermal analysis and, in turn, with GEFTA. Prof. Seifert participated in ICTA for the first time at the 4th meeting in Budapest in 1974.

A rapid rise within GEFTA led to his presidency of the society from 1977 to 1980, and subsequently to his position of Affiliated Councillor of GEFTA for ICTA. After serving as Vice-President of ICTA between 1982 and 1985, Prof. Seifert was elected President of ICTA at the 8th ICTA Congress in Bratislava/CSSR in 1985. Because of a heart-bypass operation, he was unable to attend the 9th ICTA Congress in Jerusalem, where his place was taken by the Vice-President. His honours include the Kurnakov Medal of the USSR (1985) and the NETZSCH-GEFTA Award (1987). In 1996 he retired as Prof. emer. Prof. Seifert has been married to his wife, Tilly, since 1952 and they have 3 grown children: one daughter and two sons. He is a proud grandfather of two grandchildren, now 14 and 17 years of age.

When his career, the ICTA and GEFTA activities, and the family allows, Prof. Seifert enjoys walking tours if the weather is nice, of course. He also enjoys spending his leisure hours reading classic crime novels and historical literature.



Professor Slade St. J. Warne

Born: 1931, Perth Western Australia

Address: Department of Geology, The University of Newcastle, Shortland, NSW, 2308, Australia.

Qualifications: B.Sc. University of Western Australia, 1954 Ph.D. University of New South Wales, (NSW) Australia, 1963.

Positions held: Petroleum Geologist; Coal Petrologist (CSIRO); Teaching Fellow, University of NSW, Australia; Joint Coal Board, Senior Research Fellow, University of NSW, Australia.

University of Newcastle, NSW, Australia

- ♦ Academic Staff 1963–1973
- ♦ Professor in Geology 1973–1988
- ❖ Professorial Fellow in Geology 1989

Visiting positions held: (USA) Louisiana State University – Visiting Research Professor – 3 months, 1968; (USA) University of Georgia – Visiting Research Professor – 9 months, 1970; (UK) Macaulay Institute for Soil Research, Scotland, Visiting Scientist – 3 months 1970; (UK) University of Bristol, Visiting Professor – 1 year, 1977; (Canada) University of Calgary – Visiting Professor – 3 months, 1981; (UK) Institute of Geological Sciences – Visiting Professor – 6 months, 1984; (UK) Institute of Geological Sciences – Visiting Professor – 6 months, 1987; (Czechoslovakia) Charles University (Prague) – Visiting Professor – 3 weeks, 1985; (Brazil) University of Sao Paulo, Visiting Professor – 3 weeks, 1989. Publications: A total of 116, mostly in International Journals. Includes 3 chapters in different Reference Books, 3 chapters in the book "Thermal Analysis-Techniques and Applications" edited by Prof. E. L. Charsley & S. B. Warrington (1992) together with a number of invited reviews and papers contributed to special commemorative issues of scientific journals.

Joint editor of the book "Thermal Analysis in the Geosciences" (Smykatz-Kloss & Warne) resulting from the first meeting of the ICTA Geosciences Committee (1990). This, was published by Springer Verlag in 1991.

Scientific recognition:

- President. International Confederation for Thermal Analysis (ICTA), 1988–1992.
- Vice President, ICTA, 1985-1988
- Past President of ICTAC 1992–1996
- Member of ICTA Council, from 1972 to 1996.

The longest continuously serving member ever.

- Chairman of ICTAC Awards committee, 1982–1985
- Recipient of the Kurnakov Medal for contributions to thermal analysis awarded by the Institute of General and Inorganic Chemistry of the USSR Academy of Sciences.
- Member of the executive committee, The Institute of Coal Research (University of Newcastle) 1984–1990.
- Fellow of the American Mineralogical Society (FMSA). Elected in 1975.
- Fellow of the Australian Institute of Energy (FAIE). Elected in 1978.
- Fellow of the North American Thermal Analysis Society (FNATAS). Elected in 1987.
- Plenary or Keynote Lectures. Nine of these invited and published papers have been given.
- Best Graduate Lecturer Award, school of Science, The University of Georgia 1970. Membership of Editorial Boards:
- + Thermochimica Acta, 1983-1993.
- + Reactivity of Solids 1985-1990.
- + Chemie der Erde, 1987-1992

Additional information:

- * Member of the Doctoral Degrees Committee (University of Newcastle), 1982–1988.
- * External examiner for a number of Doctoral theses, from Australia and overseas.
- * Involved in the assessment of proposals for research grant funding.
- * Provided confidential referees reports, on request from other Universities, for candidates for full Professorial positions, often overseas.
- * Personal research funding has been mainly from grants outside the University, which are larger.

Collaboration: To date a considerable proportion of the resultant published research has been in collaboration with scientists from the following organizations. The Bell Laboratories (USA), the Macauley Institute for Soil Research (Scotland), the Institute of Geological Sciences (London), Stanton Redcroft Pty. Ltd., (UK), Central Research Laboratories of BHP Pty. Ltd., (Australia), CSIRO Divisions of Energy Chemistry and Fossil Fuels (Australia), together with the Universities of Calgary (Canada), Texas (USA), New South Wales (Australia) and Wollongong (Australia).

Research: Research is continuing in the applications of thermal analysis methods and techniques to the elucidation of the inorganic constituents in solid hydro-carbon fossil fuels. Particular emphasis being placed on the environmental aspects of the waste products.

In summary my research career has been in the areas as above, particularly in the development and applications of the method of "Variable Atmosphere Thermal Analysis", the effects of various furnace gas atmospheres, improved detection limits and further the identification of impurities in mixtures.

Lectures to the public: Recently I have become involved in publicizing science for the University of Newcastle by giving the following lectures in a series which are open to the public.

- Gemstones and Crystals
- Master Builders of the Past
- The Galapagos and Easter Islands Unique Pieces in the Puzzle of Life
- ◆ Our Planet in Turmoil
- ◆ The Big Bang Vesuvius & Pompeii
- Geological Wonders of the World
- Petrified Pictures from the Past

To my delight these lectures have been very well received, attracted favourable comment and more and more people are coming each time. What will be next, possibly "Geological Catastrophes and History – Exploding Volcanoes to Continents in Collision" perhaps.