

## **Hans Georg Wiedemann Glimpses of an Iridescent Life**

Writing on a friend's developments, achievements, state of affairs, fervid activities and relentless thirst for action, all in all on his life, is like trying to paint a growing tree. In his lifetime one can make out distinct happenings, important and unimportant acquaintances, perception paired with sensibility, success and sufferance. The picture can only conserve some details, a few fragments. It will be further illustrated and developed — fortunately. It has to be enriched by the personal experiences of the observer or, in this case, by the reader. The attempt of compiling some of the fragments characterizing Hans Georg Wiedemann leads to two preliminary observations: one is that his life is much too rich and iridescent to be described with simple words; the other aspect is that his life still evolves, and promises new achievements, and further surprises.

Hans Georg Wiedemann was born in Dessau, Germany, on January 22nd 1928. Shortly before achieving the “Matura” towards the end of the war he was conscripted into the army, and as fate would have it he became prisoner in Russia. After an odyssey which left him with undesired but unforgettable experiences, he returned to Germany. In 1946 he started an apprenticeship as a laboratory assistant in chemistry. Three years later he joined the engineers' school at Köthen and he successfully completed the “Matura Type C”. In his final year (1952) he undertook a Diploma Thesis describing the development and construction of an electrophoresis apparatus for medicinal applications. He then started his studies at the University of Rostock, where he joined the Institute of Physical Chemistry on May 1st 1954. This was actually the starting point of his career as an inventor and developer of thermoanalytical techniques. Under the guidance of W. Schulze and H. Peters he rounded off his studies in 1956 with a Diploma Thesis entitled “Design and Construction of a Thermobalance for Investigations of Heterogeneous Equilibria”. In Fig. 1 this prototype of a still to be developed series of sophisticated thermobalances is presented. In 1958 he started a Ph.D. Thesis under the guidance of G. Rienäcker at the University of Rostock and at the Institute for Research on Catalysis at the Academy of Sciences, Berlin. The topic of his thesis was “Thermogravimetric Studies of Rare Earth Oxygen Equilibria”. These studies inevitably forced him to construct a more advanced thermobalance. The product of his successful endeavour is shown in Fig. 2. With this instrument valuable thermoanalytical studies were performed and the details published (see bibliography).

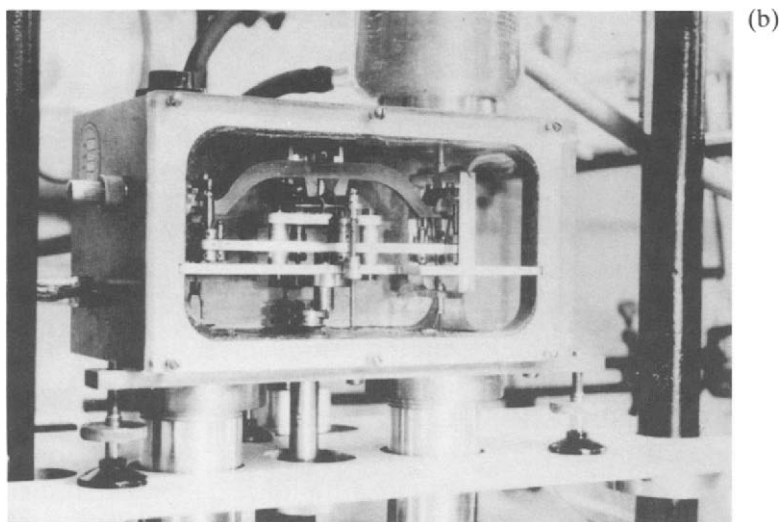
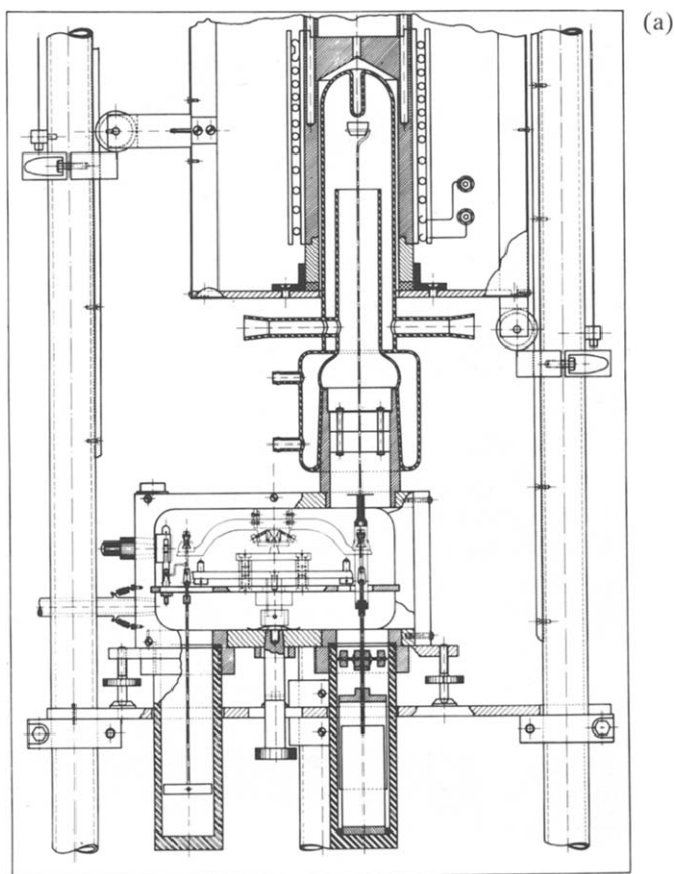


Fig. 1. Schematic drawing (a) and photograph (b) of the thermobalance developed by Hans Georg Wiedemann, W. Schulze and H. Peters at the Institute of Physical Chemistry, University of Rostock, during the years 1954–1956.

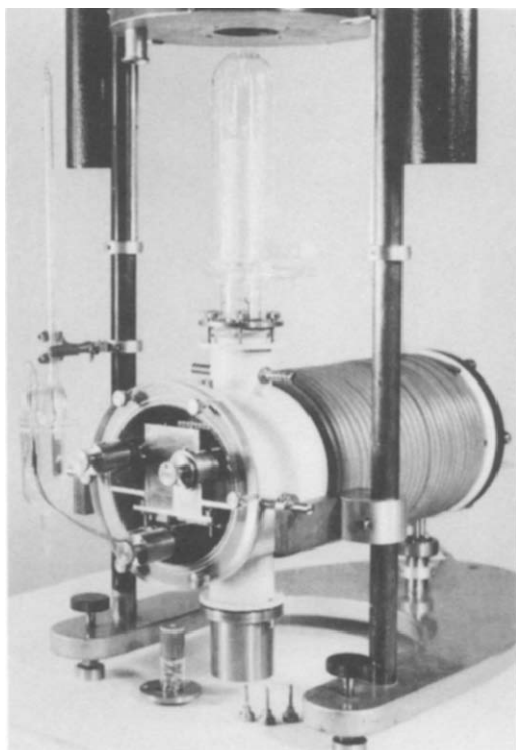


Fig. 2. Photograph of the thermobalance accomplished during his (first) Ph.D. Thesis at Rostock University and the Academy of Sciences, Berlin (1960) under the guidance of H. Peters and G. Rienäcker.

Towards the end of his Ph.D. Thesis, however, the political situation in the then German Democratic Republic led him to the decision to leave East Berlin. Risky but careful planning allowed him and his family to reach West Berlin just in time before the Berliner Mauer was constructed. After a comparatively unimportant odyssey he settled in Switzerland and started his career with Mettler Instruments, at that time in the town of Stäfa. In the years 1961–1962 the developments of a combined thermoanalytical instrument coalesced with the construction of the prototype of the Mettler TA 1, which was nicknamed “Alte Tante”, i.e. Old Auntie (see Fig. 3). In 1964 the TA 1 system was introduced to the scientific and industrial community. Within a short period it became a bestseller on the thermoanalytical market and even today one may happen to come across this “classic” instrument, still working and still producing valuable measurements.

After the accomplishment and continuous improvements of his chef d’oeuvre in terms of instrumentation he concentrated on the development of accessories. Besides these activities he broadened the spectrum of research activities more and more. In the years 1966–1971 he accomplished

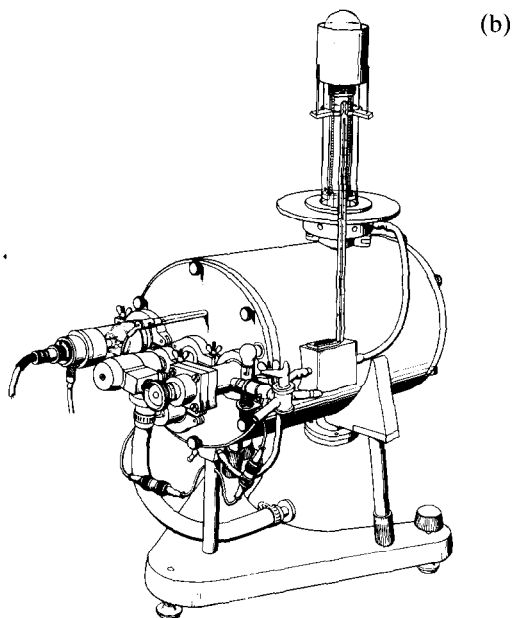
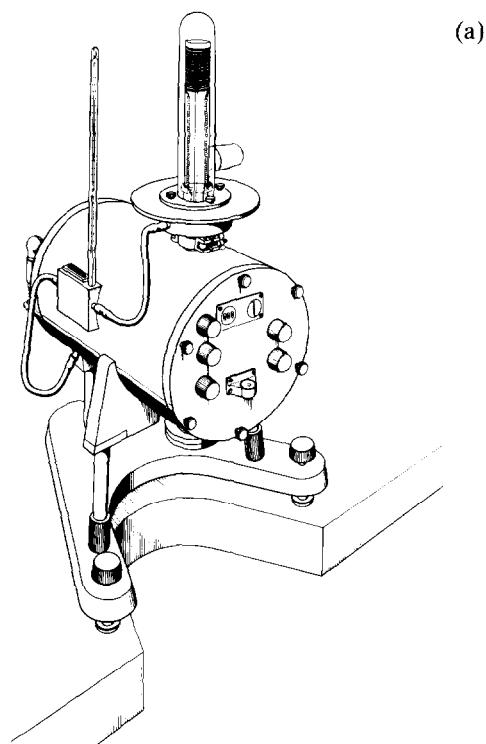
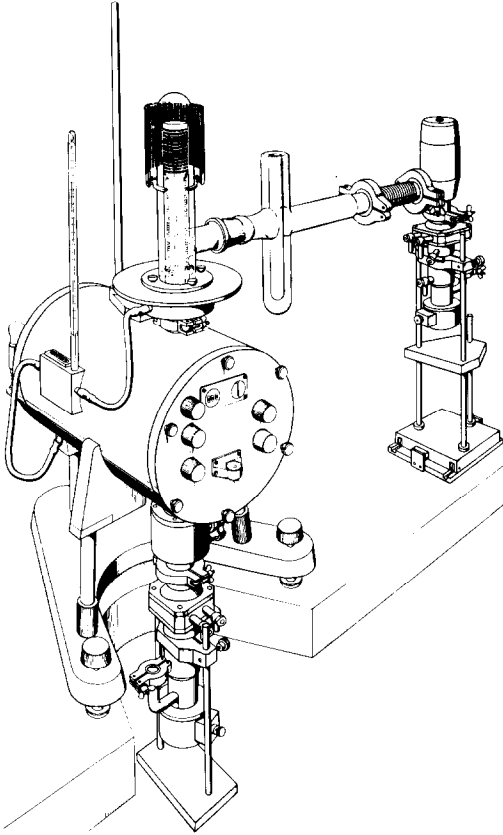


Fig. 3. Stages of the development of the Mettler TA 1 system. (a), (b), (c) and (d) show schematic drawings of the prototypes of the TA 1 system. In (e) a photograph of the TA 1 prototype, the "Alte Tante", is displayed.

(c)

xv



(d)

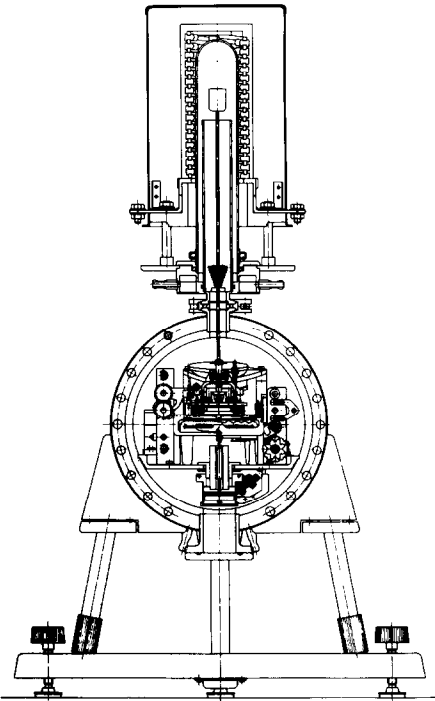


Fig. 3 (continued).



Fig. 3 (continued).

a Ph.D. Thesis at the Institute of Inorganic Chemistry, University of Bern, Switzerland. The thesis, which was accomplished under the guidance of W. Feitknecht and R. Giovanoli, was entitled “Topochemical and Kinetic Investigations on the Thermal Decomposition of Zinc Hydroxide Carbonates”. Of course this topic was but a fragment from the spectrum of research topics with which Hans Wiedemann was dealing. His bibliography illustrates the range of problems he was tackling with thermoanalytical and complementary techniques. If one had to summarize his research activities one probably would end up with studies on materials relevant in the cultural–historical development of various civilizations as well as at the forefront of modern materials science. It is a characteristic of Hans Wiedemann’s work that he not only carried out measurements on moon rocks, meteorites, ancient Egyptian papyri, pottery, pigments, ancient Chinese papers, silk, jade, terracotta and bronzes, but also studied the cultural background of these materials. Consequently he joined the Oriental Seminar at the University of Zürich. With his colleagues he investigated various Egyptian tombs and temples at Thebes, Gizeh and Luxor. If one knows Hans Wiedemann it cannot be surprising that he also learned to decipher hieroglyphs as well as Chinese characters. If one concludes that he spent his time in an ivory tower, happily and secludedly

following his studies, one would be mistaken. No, he literally travelled the world, he joined scientific committees and societies, he presented lectures at many conferences, edited various proceedings, and still found time to transform his dedication as a developer into advanced instruments. Yet above all he retained his curiosity; in fact his professional curiosity might be his utmost talent. It is the driving force for the courageous attempt to remain a generalist within a community of mostly narrow specialists. He has been honoured with the Swiss Society for Thermal Analysis and Calorimetry Award as well as with the Mettler Award and he has also received a number of other awards. He has served on many international boards and societies, and yet he remains – very characteristically – a curious generalist. Unfortunately, generalists seem to have little place today in the minds of academic awards committees.

Hans Wiedemann's life may again be compared with that of a tree, an individual tree which still keeps on growing, still develops new roots, new branches and leaves, and spreads its idea-seeds widely.

Dear Hans I do hope that you may further cultivate your curiosity and your generalist's view and criticisms. I also hope that you continue to motivate colleagues to enlarge their spectra of personal interests and to re-evaluate their measurements of individual successes. Our times urgently need it.

ARMIN RELLER

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