

PRESENTATION OF THE NETZSCH-GEFTA-AWARD 1988
TO DR. VLADIMIR BALEK, PRAGUE/CSSR
IN REGENSBURG/FRG, October 11, 1988

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NETZSCH-Gerätebau GmbH, D-8672 Selb/Bayern (FRG)

The NETZSCH-GEFTA-Award, sponsored by NETZSCH-Gerätebau GmbH, Selb/Bavaria, is awarded annually to a person in recognition of his distinguished scientific work.



Mr. Vladimir Balek was born in March 1940 in the western bohemian village of Kvásnovice. After completing high school in 1956 he studied chemistry at the Technical University of Prague.

After receiving his diploma in 1961 he commenced work towards his doctoral degree, first at the Scientific Faculty of the Karls-University of Prague/CSSR and then at the National University of Moscow/USSR. His doctoral thesis dealt with the comparison of various thermoanalytical methods for testing processes in solid bodies and on their surfaces. In particular, for testing reactions in surface layers of anorganic materials, radioactive isotopes were used.

In 1967 Mr. Vladimir Balek received the degree Dr. rer. nat. at the Lomonosow-University, Moskow/USSR. His thesis was entitled: "Study of processes in solids using the emanation and surface marking method".

In the ensuing years, Dr. Balek held an assistant professorship at Karls-University, Prague. In addition to his comprehensive instructional work, he devoted himself to research dealing intensively with the various techniques of thermal analysis. Based on this work he developed several instruments for recording the release of radioactive gases during the heating of solids. This technique was used in combination with thermoanalytical techniques such as differential thermoanalysis, thermogravimetry and dilatometry.

Of these methods, "Emanation Thermoanalysis", is known worldwide. The abbreviation "ETA" is now part of the thermoanalytical nomenclature of the ICTA.

In his preface to Dr. Balek's monograph treating Emanation Thermoanalysis, Dr. Robert Mackenzie mentions the missionary enthusiasm of the author exhibited during development and publication of the comprehensive work.

Under the direction of Dr. Balek at the Karls-University of Prague and the Institute for Nuclear Research in Rež, research continued into the application of Emanation Thermoanalysis.

These methods allow - among other things - an quantitative determination of the sintering capability of powder or gelatinous materials and the reactivity of ceramic powders in compound materials.

Dr. Balek and his colleagues developed methods which allow the continuous observation of changes in the microstructures and surfaces of building materials and specialty ceramics during manufacturing as well as in quality control of the intermediate products of these materials.

On October 5, 1988, Dr. Balek qualified as a university lecturer with the topic "Study of non-metallic materials and building materials using radiometric emanation methods". We wish to congratulate Professor Balek for this achievement.

Dr. Balek has travelled extensively as a guest lecturer of, for example, the Université Libre, Brussels/Belgium, Prof. Dr. Keyser, University Goettingen/FRG, Prof. Hauffe, Technical University Trondheim/Norway, Prof. Holm, Technical University Munich/FRG, Prof. Born, at the Hahn-Meitner-Institute, Berlin/FRG, Prof. Zimen, Nuclear Research Centre (Kernforschungszentrum) Karlsruhe/FRG, University Mayence/FRG, Prof. Straßmann, Universidad Autónoma de Barcelona/Spain, Rank Xerox Corp., Rochester/USA, Rutgers College, Piscataway, N. J./USA.

Dr. Balek frequently participated at summer terms in, for example, Jena/GDR and Salford/U.K. as lecturer treating the topic "Thermal Analysis".

Based on these international contacts he created an extensive network with laboratories in Europe and abroad in which the Emanation Thermoanalysis for characterization of changes in microstructures of coal, the thermal behaviour of plastics and semiconductors as well as of superconducting oxide ceramics play an important role.

Recently Dr. Balek was very successful with the application of Emanation Thermoanalysis in the field of pollution control, wherein the corrosion of building materials due to liquid and gaseous media was investigated.

For many years Dr. Balek has chaired the Thermal Analysis Group of the Czechoslovakian Technical Society, Prague. He was vice president of the organization committee of the 8th ICTA'85 in Bratislava/Czechoslovakia and editor of the ICTA'85 proceedings.

Dr. Balek is the editor of four monographs and is responsible for more the 200 publications. Furthermore, he holds 15 patents.

Under the auspices of the UNESCO, Dr. Balek has organized courses under the heading "Characterization of Materials" since 1987.

Since 1982, Dr. Balek has been a member of the Executive Council of the ICTA.

Recently Dr. Balek's scientific and organizational capabilities have led to numerous honours.

He received the honorary diploma of the Czechoslovakian Scientific Technical Society. As a member and functionary of the Czechoslovakian Chemical Society he received the Kurnakow medal some years ago.

Those who know Dr. Balek also know that he very much enjoys travelling and photography. These hobbies have even evolved into a part-time job. Occasionally he serves as a reporter, being a member of the Association of the Czechoslovakian Journalists.

In these activities he relies on his comprehensive knowledge of foreign languages. In addition to his mother tongue he speaks German, English, French, Russian and Spanish fluently.

Mrs. Karla Balek (née Cyrusova) is the departmental head of Power Engineering (Starkstromelektrotechnik) in Czechoslovakia. The Baleks have a daughter Denise who is now 11 years of age.

We are pleased to present to Dr. Vladimir Balek, Prague/Czechoslovakia, the NETZSCH-GEFTA-Award 1988, not only for his numerous and outstanding scientific successes, a significant part resulting from experimental and research thermal analysis, but also for his international engagement in this field.

The NETZSCH-GEFTA-Award carries with it an honorarium of DM 3.000,--.

We congratulate Dr. Vladimir Balek.