
Tribute

Tribute to Dr. Marek Maciejewski for the Presentation of the Netzsch-GEFTA Award 2001

For 30 years, Dr. Maciejewski has been working in the fields of thermal analysis, calorimetry, kinetics of solid-state reactions as well as the investigation of solid catalysts. As can be gathered from his curriculum vitae, he published more than 100 articles in these fields, 40 of them in the two most important journals *Thermochimica Acta* and *Journal of Thermal Analysis and Calorimetry*. These publications, renowned for highly scientific care and authenticity, refer in the earlier years mainly to his contributions on kinetics of solid-state reactions and later on, to catalysis. As an expression of the international appreciation of his work, Dr. Maciejewski was elected member of the *Kinetics Committee* of the *International Confederation for Thermal Analysis and Calorimetry* (ICTAC) in 1986.

Outstanding, however, and one of the major reasons for the decision of the GEFTA board, is his work regarding the quantitative evaluation of thermoanalytical curves obtained by means of coupling techniques, especially TA-MS and TA-FTIR couplings. Regarding the possibilities for enhancing the meaningfulness of thermoanalytical curves and, of course, their reliable interpretation, these publications represent – together with the excellent contribution to the field of thermal analysis made by the MTDSC – the most important progress in thermal analysis over the past 10 years. All this can be related to Maciejewski's publications on the characterization of catalysts. Based on his inspiration, a supplementary device for TA-MS/FTIR couplings has, meanwhile, been commercialized, summarized and patented under *PulseTA*[®].

The basic thought for this extended method was initially presented at the 11th ICTAC in Philadelphia, and shortly afterwards was issued in two especially important publications. They are included in the *Thermochim. Acta*. 295 (1997) anthology for coupling techniques. A larger number of publications meanwhile followed – most of them from the award-winner – confirming the tremendous increase in information resulting from the application of *PulseTA*[®] in thermal analysis. It can be concluded from these articles that not just a small number of published suggestions for reaction mechanisms for thermal decomposition need to be corrected, even those obtained with measurements using modern coupling techniques.

Two important fields in solid chemistry and catalysis could particularly be improved upon due to this refinement. With the method according to Maciejewski it is, on one hand, possible to solve the well-known problem of entirely or partly overlapping of several processes

within one TG step by means of on-line or off-line calibration of the ion current signal and IR frequencies, respectively. Combining the pulse technique and thermobalances coupled to MS or FTIR systems, on the other hand, allows for the quantitatively defined establishment of any oxidation state of suitable materials in catalytically relevant systems or to trace back their formation by means of measurement. This presents itself as a semi-preparatory and analytical progress with tremendous scientific effects.

This broad increase in scientific knowledge dedicated to *PulseTA*[®] shall be especially honored with the presentation of the Netzsch-GEFTA award 2001.



On September 10, 2001, during the GEFTA TA Symposium in Munich, the Netzsch GEFTA Award 2001 was presented to Dr. Marek Maciejewski, Zurich
Dr. Wolf-Dieter Emmerich (Netzsch, left) Dr. Marek Maciejewski (middle) and Dr. Michael Feist (GEFTA, right)

Apart from his scientific work, Dr. Maciejewski is also very busy in the organizational scientific field; he took part in the organization of several national and international congresses, was and still is a member of the board of the national societies for thermal analysis and calorimetry of Poland and Switzerland, respectively.

Dr. Maciejewski was born on 6 May 1940 in Poland. He studied at the Warsaw Technical University receiving his diploma in Chemical Technology in 1963. In the next 27 years he worked as a researcher and lecturer at the Chemical Faculty of the same university where he received his PhD in 1971 and qualified as a university lecturer in 1988. Since 1990 he has been employed as a supervisor at the laboratory for Technical Chemistry at ETH Zurich and since 1997, he has held the position of scientific junior civil servant. He is married and has two children.

The Board of the Society for Thermal Analysis congratulates Dr. Marek Maciejewski on the honor of obtaining the Netzsch-GEFTA 2001 award and wishes him and his family health and happiness as well as much success for all his personal and scientific endeavours.

On behalf of the GEFTA Board
Michael Feist