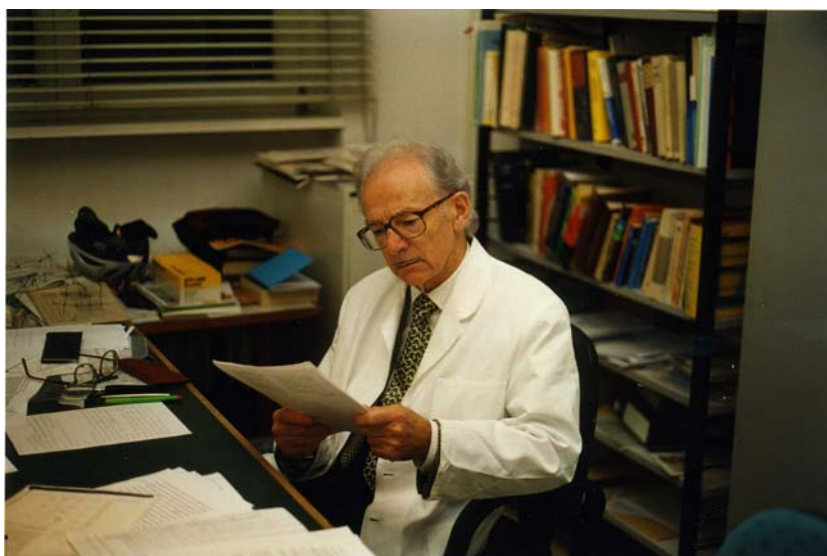


Obituary: Janusz Dabrowski 1927–2009

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On April 23, 2009 Prof. Dr. Janusz Dabrowski died in Berlin at the age of 81 years. He was born on November 16, 1927 in Warsaw (Warszawa).

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Janusz Dabrowski studied chemistry at the University of Warsaw. He then continued his education as post-graduated student (“aspirant”) at the Department of Chemistry at the Lomonosov State University in Moscow. Under supervision of Professor Nikolay Kochetkov he synthesized β -aminovinylketones and discovered in these compounds a reversible isomerization. In 1956 he received his doctoral degree in chemistry. Upon his return to Poland he worked at the Polytechnical University of Warsaw, where he continued his studies on β -aminovinylketones. He predicted that their *cis*- and *trans*-isomers are stable at low temperature and was successful in their isolation and structural characterization by IR-spectroscopy, after having invented special low temperature protocols. These results formed the basis of his habilitation work, which was defended in 1963.

Within the next decade he extended the methodology of his studies by using a combination of vibrational spectroscopy, nuclear magnetic resonance and *ab initio* calculations with the aim to get further insight to configuration and

conformation of different aminovinylketones and other substituted unsaturated carbonyl compounds. In 1965 he moved to the Institute of Organic Chemistry of the Polish Academy of Sciences, where he was the Deputy-director and the head of the department “Physical Methods and Analysis”. In 1969 he became Professor.

In 1975 Janusz Dabrowski and his family moved to Heidelberg where he became head of the NMR-laboratory in the Department of Organic Chemistry at the Max-Planck-Institute of Medical Research led by Professor Heinz A. Staab. Here Janusz Dabrowski performed structural studies of multifunctional macrocyclic compounds synthesized in the laboratory of Professor Heinz A. Staab and of peptide poisons from mushrooms isolated in the department of Professor Theodor Wieland from the same institute. Further he initiated his pioneering work on NMR-based structural analysis of glycoconjugates, which are of importance in immunological processes. This included an intense cooperation with several research groups: with Professors Heinz Egge and Peter Hanfland (University of Bonn) dedicated to the elucidation of structures of blood group-active glycosphingolipids, with Professors Stephan Stirm and Rudolf Geyer (University of Giessen) concerning the structures of carbohydrates from influenza and leukemia viruses and with Professor Elzbieta Romanowska (Ludwig-Hirschfeld-Institute, Wroclaw, Poland) and Professors Yury Knirel and Alexander Shashkov (N.D. Zelinsky Institute of Organic Chemistry, Moscow, Russia) on structural analysis of bacterial polysaccharides.

In the late 80s and 90s his research interests expanded also to the field of conformational analysis of oligosaccharides with the main focus to the investigation of structural characteristics which determine conformational flexibility of carbohydrate compounds in different solvents. By measuring inter-residual NOE values he has shown that oligosaccharide molecules appeared to be more flexible than previously believed. He invented experimental protocols based on the use of the protons of OH-groups and intramolecular H-bonds which bridge the carbohydrate moieties along the oligosac-

charide chains as long-range conformational state sensors. This “isotopomer-selected NOE (ISNOE) method” for the unequivocal identification of mutually hydrogen bond-linked hydroxyl groups was a useful tool in the studies of three dimensional structures of oligosaccharides. The intensive cooperation with Dr. Claus-Wilhelm von der Lieth (DKFZ, Heidelberg, Germany) provided further information on basis of computational methods. By this combination of experimental methods and theoretical considerations, the conformation of a variety of oligosaccharides has been elucidated, which supported the cooperation with Professors Guido Tettamanti and Sandro Sonnino, University of Milan, Milan, Italy; Professor Tomoya Ogawa, RIKEN Institute, Saitama, Japan; Professor Dr. Roland Schauer, University of Kiel; Dr. Maria Kordowicz, Merck, Darmstadt, Germany; Professor Nikolay E. Nifantiev, N.D. Zelinsky Institute of Organic Chemistry, Moscow, Russia and others.

It is worth to mention the participation of his coworkers Leszek Poppe (now at the Department of Molecular Structure, Amgen Inc., Thousand Oaks, CA 91320, USA), Hans-Christian Siebert (now the head of the Institute of Biochemistry and Endocrinology, Justus-Liebig-University, Giessen, Germany), Andrzej Ejchart (Polish Academy of Sciences, Warsaw), Tibor Kožár (now at the Department of Biophysics, Institute of Experimental Physics, Slovak Academy of Sciences, Košice, Slovakia), Neil Ravenscroft (now at the Department of Chemistry University of Cape Town, South Africa), who worked at the Max-Planck-Institute under supervision of Professor J. Dabrowski.

Anyone who was in touch with him will remember his devotion to science, exceptional clarity of expressing thoughts, and perfectionism in the interpretation of experimental data. He was broadly educated, fluent in many languages, expert in history, literature and arts. He left his wife Dr. Ursula Dabrowski who worked with him together through all years. The last years they lived in Berlin nearby their daughter Marylena, her husband and their children Konstantin, Julian and Carlotta.