

Professor Danuta Anna Bauman (1950–2011)



During this year's Conference on Neutron Scattering and Complementary Methods in Study of Condensed Phases in Chlewiska apart from regular scientific sessions, there were sessions dedicated to two outstanding scientists that have passed away recently — Professor Jerzy Janik and Professor Danuta Bauman. Both of them were good colleagues and both had an international renown and their sudden death left us all in grief.

Professor Danuta Bauman was born in Poznań in a so-called “working intelligentsia” family. She attended the best schools, which she graduated from with outstanding results and her love for science was visible already in high school. Hoping to gain more knowledge connected to physics, she chose to study this subject at the Adam Mickiewicz University in Poznań, in the Department of Mathematics, Physics and Chemistry. She wrote her diploma thesis on theory of electromagnetic fields and received her M.Sc. diploma *cum laude*.

In 1975 she got her first job at the inter-department Institute of Physics at the Poznań University of Technology, joining the group led by Professor Danuta Frąckowiak, which researched the biophysics, photosynthesis and native photosystems. Spectral properties of the chlorophyll in macroscopically oriented liquid crystalline matrix by using guest–host effect was the topic of her Ph.D. thesis, which she defended in the Department of Mathematics and Physics at the Adam Mickiewicz University. Since the very beginnings she was a member of a group that was interested in the features of thermotropic liquid crystals. This research had both a basic and an applicatory character connected with LCD displays which production started in Poland under Japanese licence in Wrocław at that time. The technological aspect was reflected in many patents that Professor Bauman was co-author of. Moreover, this research helped to develop the laboratory models of colour LCD displays and it was continued in the governmental project called PR3. Professor Bauman cooperated with many research groups from all over Poland that were involved in the PR3 project and the professional cooperation between its participants oftentimes turned into true friendships.

Professor Bauman was a pioneer in the systematic multi-aspect research in the dye–liquid crystalline systems with use of complementary techniques. Thanks to her work, we gained a deep insight into the mechanisms of inter-molecular interaction in macroscopically ordered guest–host systems. What had a huge influence on Professor Bauman's research activity was her Alexander von Humboldt research fellowships, which allowed her to go to Germany, where she worked with Professor Wolfgang Haase from Institute of Physical Chemistry, Darmstadt University of Technology in 1986–1988, 1990, Professor Hans-Georg Kuball from Faculty of Chemistry, University of Kaiserslautern in 1990, 1992, 1996 and Professor Dr. Helmuth Moehwald from Max Planck Institute of Colloids and Interfaces in 2002.

The research on intermolecular interaction in liquid crystal systems and guest–host effect was collected in a monographic book that became the basis for Professor Bauman's habilitation procedure at the Institute of Physics and the Warsaw University of Technology in 1990.

The continuation of intense research and systematic building of research groups was a huge asset, in particular while applying for the title of a Professor, which she obtained in 1999. At that time Professor Bauman's interests went into the direction of liquid crystalline polymers, functional materials for optoelectronics and in last period — ultrathin molecular films at the air–water interface. She was an author of a great number of original papers in field of two component molecular films formed of dyes and mesogenic materials.

Professor Bauman was always actively involved in the process of teaching in higher education institutions. She paved the way to the opening of the Department of Technical Physics at the Poznań University of Technology. At first she was the head of the Chair of Optical Spectroscopy, later on to become the dean of the Department of Technical Physics for six years (1999–2005). It was due to her energy and hard work that the Department received the right to run Ph.D. courses and the “habilitation” procedures.

Indubitably she was a demanding head and supervisor, but she set high standards for herself as well. Many people looked up to her and her students held her in high esteem, not only because of her knowledge and professional experience but also because of her amiable character. She ingrained the seed of hard work in all the people she worked with.

We miss her every day.

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