

## PROFESSOR JERZY BAŁDYGA – PERSONAL MEMORIES

Ryszard Pohorecki

Warsaw University of Technology, Faculty of Chemical and Process Engineering,  
ul. Waryńskiego 1, 00-645 Warsaw, Poland

Professor Jerzy Bałdyga died on November 19, 2019, suddenly and unexpectedly. This tragic news was a shock to me. He was my best student ever, and was in the middle of a great scientific career. I first met him in 1972, he was in his third year of studies. He approached me asking for a suggestion of an interesting problem he might work upon. I suggested a problem which haunted me since my own PhD studies on condensation of sublimable materials: the mechanism of mixing on the molecular scale. Jerzy started with some simple experiments, which were also the subject of his diploma work, and later expanded to his very good PhD thesis entitled “Micromixing and segregation in chemical reactors”. I had the pleasure of being the promotor of this thesis, and later also had the privilege of being the first reader of Jerzy’s habilitation thesis.

Shortly afterwards, during a visit in ETH Zurich, I asked my host, John Bourne, whether he would accept a very able young man as a collaborator. This was the beginning of a most successful cooperation and of the brilliant scientific career of Jerzy. The long collaboration with John gave birth to their fundamental monograph “Turbulent Mixing and Chemical Reactions” which (together with related papers) has been recognized by NAMF AIChE as one of 21 most influential contributions in mixing research in 20<sup>th</sup> and 21<sup>st</sup> centuries in the world.

After Jerzy’s return to Warsaw we had the opportunity to collaborate on a new process of cyclohexane oxidation, patented in a number of countries and introduced into practice in a number of plants in Poland and abroad.

As a professor of the Warsaw University of Technology Jerzy worked on the influence of micromixing on chemical reactions (especially complex ones), multiphase processes (including those with supercritical fluids), selectivity of chemical reactions and biotechnological processes. He promoted 17 PhD theses. He actively collaborated with a number of foreign institutions, including ETH Zurich, University of Birmingham, University of Saskatoon, EPFL Lausanne, and Karlsruher Institut für Technologie.

Professor Bałdyga collaborated also with a number of industrial organizations in Poland and abroad, such as Grupa Azoty, PKN Orlen, DSM, BASF, Merck, Bayer, Du Pont, Proctor and Gamble, BHR, Unilever

\* Corresponding author, e-mail: [ryszard.pohorecki@pw.edu.pl](mailto:ryszard.pohorecki@pw.edu.pl)

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and Solway. In 2001 he was awarded the Du Pont award for international scientific and educational achievements.

He was also very active in Polish and international scientific organizations. He was Deputy Chairman of the Committee of Chemical and Process Engineering of the Polish Academy of Sciences, a member of several panels of the Polish Ministry of Science and Higher Education and of the Foundation for Polish Science, as well as the European Federation of Chemical Engineering, where he was Chairman of the Working Party on Mixing, and member of the EFCE Executive Board.

At our Alma Mater, Warsaw University of Technology, he held the positions of the Head of the Division of Chemical Reactor Engineering and Dynamics, the Deputy Dean and later the Dean of the Faculty of Chemical and Process Engineering, and Member of the Senate. He was also member of editorial bodies of a number of journals, including Chemical and Process Engineering, Chemical Engineering and Processing, Process Intensification, Chemical Engineering Research and Design, and Journal of Chemical Engineering.

Professor Bałdyga received a number of awards and honours. He received the Knight's Cross of the Order of Polonia Restituta, The Golden Cross of Merit, and Medal of the Commission of National Education. He organized a number of scientific meetings and conferences.

Shortly before his death I had the opportunity of informing him that the Technical Sciences Division of the Polish Academy of Sciences voted for his membership of the Academy.

I shall miss him very much.

*Ryszard Pohorecki*

Professor emeritus  
Faculty of Chemical and Process Engineering  
Warsaw University of Technology