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The 70<sup>th</sup> Birthday  
of Professor Bronisław Jańczuk



*Professor dr hab. BRONISŁAW JAŃCZUK* was born in Rzyczki, the commune Siedliska, the district Rawa Ruska and the province Lvov (at present Rzyczki is on the territory of Ukraine) on 10 February 1944. He started education in primary school in the school year 1951/1952 and then in 1958 he continued it in I Grammar School named Bartosz Głowacki in Tomaszów Lubelski. After the secondary school final exams he studied chemistry at the Faculty of Mathematics, Physics and Chemistry at Maria Curie-Skłodowska University in Lublin.

In 1967 he wrote the master thesis in physical chemistry whose title was "Hydration films on gas bubbles" the supervisor of which was Prof. Andrzej Waksmundzki. In the same year Prof. B. Jańczuk was employed at M. Curie-Skłodowska University at first as a research student, then a junior assistant and a senior assistant in the Department of Physical Chemistry. Prof. B. Jańczuk carried out his first research in the Flotation Team, Department of Physical Chemistry. It was mainly focused on the problems connected with enrichment of ores and minerals using the froth flotation method and aimed at explanation of mechanism of air bubbles mineralization in the presence of flotation reagents. Based on this he prepared doctoral dissertation entitled "Effect of mixed apolar reagents on floatability of mineral with regard to sulfur (in the process of emulsion flotation)" which was presented in 1973. Its supervisor was Prof. A. Waksmundzki. The doctoral dissertation of Prof. Jańczuk was awarded the Prize of the Minister of Higher Education.

After obtaining the doctor's degree Prof. Jańczuk carried out research, among others, on wettability of solids, adhesion of liquids to solids as well as effects of apolar and polar liquids to solids on mineralization of air bubbles in the flotation process. The studies were based on the knowledge of components of surface free energy of solids and liquids as a result of various intermolecular interactions as well as on the dependences between the free energy of solid-liquid and liquid-

liquid interfaces and the surface free energy of phases being in contact. For many solids including minerals and many liquids Prof. Jańczuk determined the components and parameters of their surface free energy using his own equations describing the equilibrium state in the three-phase system as well as the known approaches.

Based on these studies Prof. Jańczuk wrote the habilitation dissertation "Studies of interfacial energy changes under the influence of organic liquids by measuring wettability and adhesion forces in the mineral-air-liquid system". On 28 October 1985 Prof. Jańczuk passed the oral habilitation exam during The Faculty of Mathematics, Physics and Chemistry Council Meeting. Both the exam and habilitation dissertation were highly evaluated by the Council Members who inferred the distinction award.

After obtaining the Dr hab. degree Prof. Jańczuk not only carried out on the hitherto investigations but also continued other problems important from the scientific point of view. His investigations focused mainly on issues connected with physicochemistry of different interfaces and first of all with theoretical background concerning various approaches to free energy of solid-liquid and liquid-liquid interfaces with particular emphasis put on the relations between the approaches taking into consideration division of surface free energy of liquids and solids into components and the approach treating interface free energy as dependent only on total surface free energy of phases being in contact. Then he carried out research on constraints of application of various approaches to interface free energy in the Young equation for determination of components of solid surface tension, particularly of minerals and soil components. These investigations contributed to conferring the Professor title to Dr hab. B. Jańczuk on 26 July, 1991.

Scientific achievements of Prof. B. Jańczuk were highly evaluated by many foreign scientific centers which resulted in inviting his as "Visiting Professor" by Rector of Extremadura University in Badajoz

(Spain) as well as awarding a scholarship by the Spanish Ministry of Education so-called "Sabbatical Leave". During the three-year stay in Badajoz Prof. Jańczuk published 36 papers and scientific collaboration started then is still continued, the evidence of which are joint papers as well as scientific exchange of both university workers and students.

After coming back from Spain Prof. Jańczuk developed his scientific interests taking up the investigations of surface and volumetric properties of surface active compounds and their adsorption at various interfaces as well as their effects on wettability of solids of various types. Owing to the perfect knowledge of surfactants properties and their application, Prof. Jańczuk was one of those who conceived the idea of new subject Chemistry of Bioactive Agents and Cosmetics at the Faculty of Chemistry, Maria Curie-Skłodowska University.

In his educational career Prof. Jańczuk conducted different classes for students: laboratory classes, seminars, lectures in physical chemistry and physicochemistry of surfactants and biosurfactants for different courses and majors.

Prof. B. Jańczuk was also the Head of Physical Chemistry Laboratory for students and the Head of Interface Phenomena Department in 2001–2014.

During forty four years of his work Prof. Jańczuk promoted about 100 graduated with M. Sc. title, 6 with D. Sc. title (4 at the Faculty of Chemistry, Maria Curie-Skłodowska Univeristy and 2 at the University of Extremadura in Badajoz). Two of his charges possess the Dr hab. title.

Prof. Jańczuk is the author of over 280 papers (26 individual ones). His papers were cited over 1380 times and the Hirsch index is 25. He presented the results of his investigations at many national and international conferences in the form of 100 posters and presentations.

*His scientific and educational achievements were awarded with many prizes and distinctions including Officer's Cross of the Order of Polonia Restituta, Medal of National Education Committee, Ministry of Education Awards and Rector's Awards.*

*Anna Zdziennicka*

Associate Professor Anna Zdziennicka