



EDITORIAL

Prof. Dr Konstantin I. Popov (1941–2019)

This issue is dedicated to late Prof. dr Konstantin I. Popov, former full professor of electrometallurgy at the Department of Physical Chemistry and Electrochemistry, at the Faculty of Technology and Metallurgy, University of Belgrade, in honor of his huge contribution to university education, and investigation of various aspects of the processes of electrochemical deposition and dissolution of metals.

Konstantin I. Popov was born in Sokobanja, Serbia, on the 28th of August 1941. His school years were difficult, as he changed many schools moving from town to town. However, he managed to finish secondary school few years before his generation and he became one of the youngest students to enroll Faculty of Technology and Metallurgy. He was only twenty years old, when he obtained his BSc degree in 1961, which is the age when regular students are still freshmen. Following year he joined the Faculty of Technology and Metallurgy as one of the youngest teaching assistants ever. He was younger than most of his students, for the next few years at faculty.

Professor Konstantin I. Popov received his MSc (1966), and PhD (1971) degrees in the field of electrochemical science, from the Faculty of Technology and Metallurgy, University of Belgrade. He was appointed to Assistant Professor in 1975, Associate Professor in 1982 and Full Professor in 1988 (all appointments at the Faculty of Technology and Metallurgy, Department of Physical Chemistry and Electrochemistry). At the same time, Professor Popov closely collaborated with the Institute of Chemistry, Technology and Metallurgy (ICTM), Department of Electrochemistry, University of Belgrade, and after his retirement in 2006, he spent two years working as a scientific adviser at ICTM, University of Belgrade.



During 1966 he spent some time at Institute for Electrochemistry of Academy of Science of Soviet Union in Moscow, on improving, which is curiosity, since Professor Popov was half Russian by his father Igor, who died during WWII, and unfortunately his son could not remember him.

During his rich academic carrier, Professor Popov has published over 230 research papers, twelve book chapters (see Selected References), and coauthored the two books from the area of electrochemical deposition and dissolution of metals (*Fundamental Aspects of Electrometallurgy*; Kluwer Academic/Plenum Publishers, 2002, and K. I. Popov, S. S. Djokić, N. D. Nikolić, V. D. Jović, *Morphology of Electrochemically and Chemically Deposited Metals*, Springer International Publishing, 2016). In addition, Professor Popov has published several textbooks devoted to the electrochemistry/electrometallurgy fields in the Serbian language which are used by the university students and professionals (see Selected References). He published many papers in the *Journal of Serbian Chemical Society*, to mutual benefit, spreading his ideas to the scientific community and contributing to the *Journal* to improve its status. He had numerous presentations, including invited lectures, at national and international conferences. Professor Popov successfully supervised more than 80 students in their BSc, MSc and PhD research studies. The main scientific interests of Professor Popov included various fundamental and applied aspects of electrochemical deposition and dissolution of metals, constant and periodically changing regimes of electrolysis, production and characterization of metal powders by electrolysis, the current density distribution effects, bright coatings, and open porous electrodes (the honeycomb-like structures).

In his scientific and educational career professor Popov sought to understand the essence and find simple, but accurate and reliable solution. Professor Popov taught on following courses: Fundamentals of Electrometallurgy, Metal- and Non-metal Coatings (graduated studies) and Electroplating and Electrochemical Deposition and Dissolution of Metals in Diffusion-Controlled Processes (MSc studies). The students loved him, among other things, because he could separate the essential from the irrelevant and emphasize (and repeat several times if necessary) what they needed to know even when they have passed his class. His books, textbooks and papers were very specifically written and focused on the topic they are dealing with, without superfluous details and descriptions, with a solid mathematical background.

He was brilliant in all fields of interest and his contribution to investigation of phenomena of metals deposition and dissolution was world widely recognized, which could be illustrated with following quotes:

“...Take another gigantic leap along the timeline of electrochemical discovery and application. Consider Michael Faraday, that London superstar who in 1834 discovered the relation between the amount of electricity consumed and

the amount of metal produced in solid form from some invisible particles in solution. In 1995, more than a century later, Despic and Popov wrote an article that described electroforming of (almost) anything from its ion solution: powders or dendrites, whiskers or pyramids, in laminar shapes of any chosen composition (including that of semiconductors), or indeed in nanometer sizes. This is what has become of Faraday's electrodeposition at cutting edge, as well as in practical applications such as electrodisolution to shape metal parts in the making of Roll Royce cars." – the fifth paragraph from the first chapter in the book "Modern Electrochemistry" by John O'Mara Bockris and Amulya K. N. Reddy; in the same chapter also mentioned are Galvani (in the first paragraph), Volta (in the second paragraph), Debye, Hückle and Mamantov.

"...Until the work of Popov et al. electrometallurgy has been regarded as largely empirical, an activity in which there was much art and little science. This will all change with the publication of this book." – Foreword for the book "Fundamental Aspects of Electrometallurgy" (or, as the professor used to call it: "The Green Book") by Popov, Djokić and Grgur; foreword was written by John O'Mara Bockris, one of the greatest scientist of XX century in the field of Electrochemistry.

Professor Popov was a member of the Serbian Chemical Society and Serbian Society of Corrosion and Materials Protection. He was a recipient of several national awards, including Medal of Serbian Chemical Society for enduring and outstanding contributions to science. Professor Popov was also an emeritus scientist of the Republic of Serbia. He was also awarded by Chamber of Commerce of Belgrade for invention in 2002, and he became a merited member of the Serbian Chemical Society in 2004.

Belgrade, November 2019

Guest Editors

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Acknowledgement. Guest Editors would like to acknowledge the considerable help of Predrag M. Živković, Faculty of Technology and Metallurgy, University of Belgrade, during the preparation of this Editorial.

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