

## DUŠAN SRDOČ (1929–2020): IN MEMORIAM

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Dr. sc. Dušan Srdoč  
1929–2020

Dušan Srdoč was born on January 11, 1929, in Rijeka, Croatia. He graduated from the Technical Faculty of the University of Zagreb in 1953 and was employed at the Ruder Bošković Institute (RBI) in Zagreb, Croatia, where he founded a laboratory for the development and production of detectors of ionizing radiation. He defended his Ph.D. dissertation in 1965 on the topic of Geiger-Müller counters.

He was the organizer and head of the Radiation Protection Service at the RBI in 1965–1973. Within the Service, he and the associated staff produced personal dosimeters and worked on the development of gas counters for various purposes. Based on his acquired knowledge and experience, and following the current scientific applications of gas counters, he (with coworkers) constructed a gas proportional counter dedicated to the measurement of  $^{14}\text{C}$  activity. Dr. Srdoč and his team also developed and implemented the coupled vacuum preparation lines and electronic system for data acquisition and data evaluation. The Ruder Bošković Radiocarbon Laboratory, the first of this kind in southeastern Europe, was founded in 1968. During 1969 the whole system was tested, in 1970 the first radiocarbon dating results were obtained, and the next year they were published as Datalist I in *Radiocarbon* (Srdoč et al. 1971). The laboratory also implemented the measurement of tritium activity concentration by gas proportional counter, and both the multi-wire counter and the sample preparation line were produced by the laboratory staff.

Dr. Srdoč established scientific cooperation with many institutions worldwide. One especially noteworthy collaboration is his long-term work with Brookhaven National Laboratory and Columbia University, USA, in the field of interaction of low-energy electrons and photons

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with matter, especially gases and gas mixtures, as well as the process of signal formation in gas detectors, including applications in microdosimetry. He also established a collaboration with the International Atomic Energy Agency (IAEA) and the National Science Foundation (NSF) on different research projects. In the radiocarbon field, he was especially interested in comprehensive study of the formation and geochronology of secondary carbonate sediments in the Dinaric Karst, which was described in a seminal work (Srdoč et al. 1985) and is still a source of important details and a starting point for new research. In 1988, he successfully organized the 13th International Radiocarbon Conference in Dubrovnik, and he was the guest editor of the proceedings published the following year in *Radiocarbon* (see Long and Srdoč 1989). He was also a professor at the University of Zagreb and mentor to numerous students.

Dr. Srdoč was one of the founders of the Yugoslav Radiation Protection Association (YRPA) in 1963 and its first secretary. He represented Croatia and YRPA at the First International Congress on Radiation Protection in Rome in 1966. Later, this congress was recognized as the First International Congress of IRPA, the International Radiation Protection Association.

We will remember Dr. Srdoč as a diligent and devoted scientist who initiated many new research topics at the Institute. For the current laboratory staff, his most important legacy is the founding of the Radiocarbon Laboratory, which is still in operation and following the top techniques and topics in the field. Dr. Srdoč taught us to look at our results from various standpoints, to question the conclusions, to not be afraid of the critics, and to continuously improve our knowledge and skills.

## REFERENCES

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