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EDITORIAL: FIFTY YEARS OF THE SCIENTIFIC WORK OF PROFESSOR PAVLE I. PREMOVIĆ

This Editorial of FU Phys Chem Tech is dedicated to Professor Pavle I. Premović on the occasion of fifty years of his scientific work. On April 1st, 1969, Professor dr. Pavle I. Premović got a job as a researcher at the Institute of Nuclear Sciences in Vinča. From then until today, according to his words, there is not a day that he does not wander the beautiful areas of science, especially those in geochemistry. And before that he was engaged in science with his students of the high school in Višegrad, or as a boy wandering the hills and fields of his Kostolac, where he discovered fossil shells of the ancient Pannonian Sea and the remains of charred ancient trees in Kostolac's lignite. After all, his mother Emilija often complained to neighbors that the hallways of their Kostolac apartment were painted with formulas and blackened by experimenting with his test rockets, whose propellant was mostly a mixture of gunpowder, powdered tennis balls and phosphorus from matchsticks. After all, as Professor Premović himself jokes: “One week ago, I remembered that 50 years had passed since I began my scientific work. I drink to that”.



Professor Dr. Pavle I. Premović

BIOGRAPHY OF PROFESSOR PAVLE I. PREMOVIĆ

Dr. Pavle I. Premović, Full Professor (retired) at the Faculty of Sciences and Mathematics (University of Niš) was born in Niš in 1940. He graduated from the Group for Physical Chemistry (Faculty of Sciences and Mathematics, University of Belgrade), and worked as a professor of physics at the high school in Višegrad, during two terms in 1963/64 and 1964/65. During these years, his students won team and individual first places in physics at the republic and federal levels of competition of high school students organized by the movement "Nauka mladima". At the beginning of 1969, he was employed as a researcher at the Radiation Chemistry Laboratory, Vinča Institute of Nuclear Sciences. He received his master's degree in 1971 at the Physical Chemistry Group at the Faculty of Sciences and Mathematics, University of Zagreb.

From 1973 until 1975, he was a PhD student and a teaching assistant (General Chemistry) at the Department of Chemistry, University of Victoria (Victoria, Canada), which is now considered one of the most esteemed universities in Canada. Premović defended his doctoral thesis in 1975 entitled "ESR studies of Ti(III) complexes in water solutions". During 1975/76 he was a postdoctoral fellow and a teaching assistant at the same department. During his doctoral and postdoctoral studies, he was a fellow of the University of Canada and the National Research Council of Canada.

From July 1977 until retirement, he worked at the Faculty of Philosophy (today the Faculty of Sciences and Mathematics), University of Niš. He became a full professor in March 1988. He spent 1980/81 at the Department of Chemistry, Louisiana State University (Baton Rouge, Louisiana, USA) as a visiting professor, and spent 1986/87 as a visiting scientist at the legendary American National Biomedical ESR Center (Milwaukee, Wisconsin, USA). Premović was an invited professor during 1999/2000 at the Facultad de Ciencias de la Tierra, Universidad Central de Venezuela (Caracas, Venezuela). From 1997 up to 2005, Dr. Premović resided, about three to four months a year, as an invited professor at the Laboratoire de Mineralogie et Cristallographie de Paris (LMCP) (now: Institut de Minéralogie et de Physique des Milieux Condensés), Université Pierre et Marie Curie, Paris.

Dr. Premović attended study visits at the Department of Chemistry, University of Wisconsin (Milwaukee, USA); Department of Physics, University of Leipzig (Leipzig, Germany); and, Max Planck-Institut für Chemie, Abteilung Geochemie (Meinz, Germany).

Dr. Premović delivered a section lecture ("Origin of vanadyl porphyrins in petroleum: La Luna shaly-limestones and related petroleum") at the International Meeting on Geochemistry of Earth Surface and Processes of Mineral Formation (Granada, Spain, 1987) and a plenary lecture ("On the origin of kerogens/asphaltene vanadyl porphyrins") at the VI Congreso Latinoamericano de Geoquímica Organica, ALAGO 98 (Isla Margarita, Venezuela, 1998).

Abroad, he gave invited lectures at the "J. Štefan" Institute, Ljubljana (Slovenia); Department of Chemistry and Biochemistry, Louisiana State University (Baton Rouge, USA); National Biomedical ESR Center, University of Wisconsin Medical College (Milwaukee, USA); Department of Chemistry, University of Patras (Greece) and Sektion Physik, Leipzig Universität (Leipzig, Germany). He was invited by the Russian Nuclear Research Institute in Dubna to give a plenary lecture ("Iridium and chromium of the Cretaceous-Paleogene boundary Fish Clay at the Kirkevig sites (Højerp, Stevns Klint, Denmark): preliminary consideration"), on the occasion of 65 years of scientific work of the

famous Frank Laboratory of Neutron Physics. Unfortunately, he did not give the lecture for personal reasons.

Dr. Premović is on the editorial board of *Geochemical Research and Science Domain International*. Prior to his retirement, he was a member of the Planetary Society (USA), the International Association of Geochemistry and Cosmochemistry, the European Geophysical Society and the European Association of Organic Geochemists and the International ESR Society. He has reviewed papers for the following journals: *Fuel*, *Geological Society (Special Publications)*, *Geochimica et Cosmochimica Acta*, *Cretaceous Research*, *Sedimentary Geology*, *Isotopes in Environmental & Health Studies*, *Journal of Petroleum and Gas Exploration Research*, *Scientific Journals International*, *Energy & Fuels*, *American Chemical Society Omega* and he was a reviewer of a project proposed by the National Science Foundation (USA) funding group of US researchers. From 1973 to 1976 he was the official abstractor for the Chemical Abstracts Service. During 2009, he was a guest editor of the *Geology & Geochemistry* section (entitled "Clay Mineral Association of the Cretaceous-Paleogene and Paleocene-Eocene Boundary Events") of the XIV International Clay Conference that was held in Italy in June of the same year. Also, he served on the Editorial Board of this very journal (*Facta Universitatis, Series: Physics, Chemistry and Technology*) until his retirement.

Additionally, since 2002, dr. Premović has been the President of the Scientific Advisory Board: Sustainable Development of the Braničevo District and the Kostolac Energy Complex. You can find many of his semi-popular works, some of which are quite controversial, on the portal of this advisory board. Since 1969 to date, as a leading research scientist, dr. Premović has published over 90 scientific peer-reviewed papers, most of them in reputable international journals such as *Science* (Pryor et al., 1983), *Naturwissenschaften* (Premović, 1982), *Earth and Planetary Science Letters* (Premović et al., 2000), *Journal of Chemical Physics* (Premović et al., 1973), *Journal of Physical Chemistry* (Premović et al., 1972), *Chemical Physics Letters* (Premović and Gal, 1974a), *Journal of Magnetic Resonance* (Premović and Gal, 1974b), *Canadian Journal of Chemistry* (Premović and West, 1974), *Journal of the Chemical Society* (West and Premović, 1977), *Geochimica et Cosmochimica Acta* (Hocking and Premović, 1978), *Journal of Biological Chemistry* (Kalyanaraman et al., 1987), *Angewandte Makromolekulare Chemie* (Gal and Premović, 1980), *Organic Geochemistry* (Premović et al., 1996), *International Journal of Astrobiology* (Premović, 2009), and many others. Dr. Premović also published a university textbook "Fundamentals of Chemical Bond Theory" for students of chemistry and other teaching fields who need basic knowledge of chemical bonding.

According to Scopus, the data from 1977 to 2019, dr. Premović's works have been cited 616 times in scientific literature (excluding self-citations). Since 2008 to date, his papers have been cited 26 to 43 times per year. The average readership of these papers on ResearchGate was about 1000 a year. His most cited work published in one of the most reputed scientific journals *Science* (Pryor et al., 1983) has earned 232 citations.

Since his retirement in October 2008, dr. Premović has published 17 scientific papers in international scientific journals, financing them himself from his pension. It is interesting that dr. Premović, although basically a geochemist and partly a cosmochemist, has since 2015 to date published over fifteen semi-popular, but controversial, articles on the Special Theory of Relativity, Heisenberg's Principle of Uncertainty, Nuclear Physics, and Cosmology, etc. These articles have aroused a keen interest of scientists-researchers around the world. The average annual readership of these works is about 500.

It is important here to mention the Danish government's decision in 2009 to include Stevens Clint on its permanent list of UNESCO World Heritage nominations since the document also lists ten of Professor Premović's papers. At the end of this short overview of his scientific work, and at the explicit request of Professor Premović, his words are given: "My entire scientific work is dedicated to my dear mother Emilija-Milica and father Ilija-Ikica."

Niko S. Radulović, Editor-in-Chief

REFERENCES

- Gal, O., Premović, P. I., 1980. *Angew. Makromolek. Chem.*, 84, 1–6. doi:10.1002/apmc.1980.050840101
- Hocking, M. B., Premović, P. I., 1978. *Geochim. Cosmochim. Ac.*, 43, 359–365 (1978). doi:10.1016/0016-7037(78)90266-1
- Kalyanaraman, B., Premović, P. I., Seally, R. C., 1987. *J. Biol. Chem.*, 262, 1080–1087.
- Premović, P. I., 1982. *Naturwissenschaften*, 69, 479–482. doi:10.1007/BF00365813
- Premović, P. I., 2009. *Int. J. Astrobiol.* 8, 193–206. doi:10.1017/S1473550409990139
- Premović, P. I., Adamić, K., Herak, J., 1972. *J. Phys. Chem.*, 76, 3274–3278. doi:10.1021/j100666a028
- Premović, P. I., Gal, O., 1974a. *Chem. Phys. Lett.*, 25, 571–575. doi:10.1016/0009-2614(74)85370-4
- Premović, P. I., Gal, O., 1974b. *J. Magn. Reson.*, 13, 177–180. doi:10.1016/0022-2364(74)90004-3
- Premović, P. I., Gal, O., Radak, B., 1973. *J. Chem. Phys.*, 59, 987–988 (1973). doi:10.1063/1.1680134
- Premović, P. I., Jovanović, Lj. S., Nikolić, G. S., 1996. *Org. Geochem.*, 24, 801–814. doi:10.1016/S0146-6380(96)00084-8
- Premović, P. I., Nikolić, N. D., Tonsa, I. R., Pavlović, M. S., Premović, M. P., Dulanović, D. T., 2000. *Earth Planet. Sc. Lett.*, 177/1-2, 105–118. doi:10.1016/S0012-821X(00)00030-3
- Premović, P. I., West, P. R., 1974. *Can. J. Chem.*, 52, 2919–2922. doi:10.1139/v74-425
- Pryor, W. A., Hales, B., Premović, P. I., Church, D. F., 1983. *Science*, 220, 425–427. doi:10.1126/science.6301009
- West, P. R., Premović, P. I., 1977. *J. Chem. Soc., Chem. Comm.*, 876–877. doi:10.1039/C39770000876