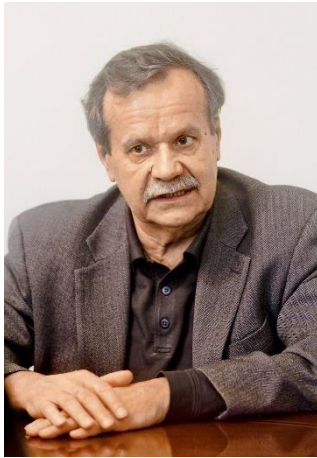


prof. dr. Stanislav Radovan Pejovnik

Emeritus Professor, Procurist of Slovenian Innovation Hub-EEIG and President of Engineering Academy of Slovenia



Biographical data

Prof. Dr. Stanislav "Stane" Pejovnik was born in 1946, completed general secondary education at Gimnazija Celje in 1964, graduated, and obtained the master and the doctoral degree at the University of Ljubljana. He was elected full professorship at the University of Ljubljana in 1989. His first employment was at the Institute »Jozef Stefan«, Department for Ceramics. In 1982, at the age of 36, he became the Director of the National Institute of Chemistry, leading the institute, for 16 years, out of a profound crisis to the scientific institution of the international relevant scientific importance. In 1985 he founded the Electrochemical Laboratory of Materials Electrochemistry at the National Institute of Chemistry. He was a visiting professor in the USA (North Carolina State University) and in Austria (Technische Universitaet Graz). He held regular lessons at both universities. He was elected Dean of the UL Faculty of Chemistry and Chemical Technology and was the rector of the University of Ljubljana (2009-2013). He is a popular teacher to his students, an excellent manager and a most agreeable person.

Scientific work - summary:

The name of Prof. Dr. Stane Pejovnik has been closely associated with science and engineering of materials for more than 30 years, within the national and international borders. Already in the early stage of his research, he used the most contemporary and modern experimental methods in sintering in the presence of liquid phase, clustered the results, processed them mathematically thus continually opening new areas or research.

His contribution to the theory of sintering in the presence of liquid phase undoubtedly classifies him as the leading researcher of sintering in Slovenia and among the most important ones around the globe. Already in this phase of his forming himself as a researcher, he started to research materials for energy. Together with prof. Kališnik he introduced the qualitative analysis of microstructure – stereology in Slovenia. He founded and led a research group for materials electrochemistry (at the National Institute for Chemistry), which is known in the global dimensions and referred to as the »Ljubljana school« for preparation and

characterization of the nano-structured electrodes for the Li- ion batteries. His essential contribution is independently opening and pioneering a new research area and reaching a global confirmation.

His most important achievements

In his personal bibliography, Prof. Dr. Pejovnik compiles over 200 scientific (reviewed) publications, from which there are more than 100 articles in eminent international magazines with high SCI. He always geared his research work towards practical use, and he is a co-author of 6 patents. He is a co-editor of 6 books. The high quality of his research work is shown by approximately 2500 quotations and even more by the fact that his every contribution is quoted 16 times on average. This index indicates also, that he worked in small research groups. He was invited to give lectures all around the globe. He was and still is a member of international editorial boards of scientific newspapers, in international associations and academies. He held and still holds a number of duties in international organizations as a consequence of his reputation among the researchers in the world. He is a winner of many awards and prizes, like: the Boris Kidrič Fund award for inventions (1977), the Boris Kidrič Fund award for publications on sintering in the presence of liquid phase (1981), full member of the International Institute for Sintering Science in Belgrade (corresponding member 1982, full member 2006), Ambassador of the Republic of Slovenia in science (1994), member of the Slovenian Academy of Engineering (1996), and its President since 2014, full member of the International Academy of Engineering in Moscow (corresponding member in 1999, full member in 2009), full member of the World Academy of Art and Science (2005), President of Slovenian National Commission for UNESCO and permanent delegate of Slovenia in Executive Board of UNESCO (2016-).

With these achievements Prof. Dr. Stane Pejovnik represents personification of significant and key contributions to the development of science and engineering of materials in Slovenia and in the world.

Education

- B.Sc. - 1970 - Chemistry Faculty for Natural Sciences and Technology University of Ljubljana
- M.Sc. - 1975 - Chemistry Faculty for Natural Sciences and Technology University of Ljubljana
- Dr.Sc. - 1978 - Chemistry Faculty for Natural Sciences and Technology University of Ljubljana

Professional career

Present	Emeritus Professor and Procurist of Slovenian Innovation Hub-EEIG and President of Engineering Academy of Slovenia
2013-2015	Professor of Materials Science Faculty of Chemistry and Chemical Technology Chair of Inorganic technology and Materials, Head University of Ljubljana
2009 – 2013	Rector University of Ljubljana

2005 – 2009	Dean and Professor of Materials Science at Chemical Technology and Materials Science Dept., Faculty of Chemistry and Chemical Technology (Vice Dean 2003-2005), University of Ljubljana
2000 – 2003	State Secretary at the Ministry of Education, Science and Sport, Government of Republic of Slovenia
1999 – 2000	Professor of Materials Science, Chemical Technology and Materials Science Dept., Faculty of Chemistry and Chemical Technology, University of Ljubljana
1982 – 1999	Director, National Institute of Chemistry, Ljubljana
1977 - 1982	Assistant Professor, Chemical Technology and Materials Science Dept., University of Ljubljana and Research Associate, Ceramic Laboratory, Institute J. Stefan, Ljubljana (part time – 1/3)
1975 - 1976	Assistant, Chemical Technology and Materials Science Dept., University of Ljubljana and Senior Assistant, Ceramic Laboratory, Institute J. Stefan, Ljubljana (part time – 1/3)
1970 - 1975	Assistant, Institute J. Stefan, Ljubljana

Visits outside of Slovenia

1976 - 1977	Visiting scientist, Max Planck Institut für Werkstoffwissenschaften, Pulvermetallurgisches Laboratorium, Stuttgart, Germany
1987 (4 months)	Visiting Professor North Carolina State University Raleigh, USA
1992 (7 months)	Visiting Professor Technical University Graz, Graz, Austria

Academic Career

1978 - 1982	Assistant Professor, University of Ljubljana
1982 – 1989	Associate Professor, University of Ljubljana
1989	Professor of Materials Science (tenior), University of Ljubljana
2016	Professor Emeritus of University of Ljubljana

Principal Research Interests and Achievements

Research work of S. Pejovnik was focused on the study of sintering process in three main directions:

- influence of defect structure (nonstoichiometry) on sintering of oxides-mainly rutile (1968-1974),
- experimental verification and statistical analysis of validity of various sintering models (1972-1978),
- liquid phase sintering and sintering in chemically heterogeneous systems based on model experiments and computer simulation of the processes (1976-1984).

Since 1984 until 1992 research objectives have been focused in the field of Renewable Energy Sources and devoted mainly on the investigation of Li/SOCl₂ batteries from the materials science point of view including studies of phase equilibrium in Li-Al and Li-B binary systems.

In last ten years his main research interest is devoted to:

- development and use of impedance spectroscopy in investigation of ionic crystals and interface between metal and ionic conductors and influence of surfaces on these phenomena
- study of passivation in Li ion batteries (Li/LiFePO₄)
- study of transport kinetics and chemical composition changes in solid mixed conductors;
- investigation of composite materials for nanostructured electrodes in secondary lithium ion batteries; influence of binders on electrochemical properties
- influence of surface charge on stability of dispersions and suspensions
- preparation and characterization of carbon and MoSi₂ nanotubes

S. Pejovnik authored or co-authored more than 200 refereed publications in journals and proceedings and is co-editor of six books - proceedings. He has presented papers and invited lectures and visited several universities and laboratories in various European countries, USA and Japan.

WoS: Hirsch index: 26, citation without self-citation: >2500.

Complete list of publications can be found at:

<http://splet02.izum.si/cobiss/bibliography?code=01859>

S. Pejovnik was member of international and local boards for a number of Conferences on sintering and materials science held in Europe. He served as a chairman of sessions at Conferences on sintering, materials research, stereology and battery research all over the world.

He was president of Management Committee for the topic: *Chemistry at surfaces and interfaces* at EU COST project: *Chemistry*.

S. Pejovnik was a principal investigator in:

- bilateral Yugoslav - USA project "High-temperature materials" and in

- Slovene-German project "Impedance spectroscopy of Materials".
- co-director of NATO SfP project "Li ion accumulators" and
- principal investigator in Slovene-German project "Deposition of graded diffusion barriers on SiC and C based composites" and

principal investigator of more than 30 Slovenian R&D projects.

Together with co-authors he has published more than 30 technical reports (mainly in Slovenian language) and holds five international patents and four technical innovations.

S. Pejovnik is Professor of Materials Science at University of Ljubljana and is teaching courses related to materials science. He lectured at North Carolina State University a course: Introduction to Materials Science for Engineers and at Technical University Graz a course: Advanced Ceramics.

S. Pejovnik has actively participated in various Committees and Conferences on issues related to the interplay science, technology and society. He was co-chairman of International Association FORUM Bled (together with Dr. Erhard Busek) and main organizer of The International Conference FORUM Bled devoted to: Science policies and Scientific cooperation and Technological cooperation and Technology transfer. He is an active member of Slovenian National *UNESCO* Commission, was President of Committee for Natural Sciences (1994 - 2000) and is at present President of National *UNESCO* Commission - Within Slovenian National *UNESCO* Committee his main responsibility is to coordinate activities concerning SEE. He was member of Scientific Council of ROSTE (UNESCO Regional Office for Science in Europe). Since November 2015 he is Member of Executive Board of *UNESCO*.

For three years he was state secretary for higher education (and Deputy Minister) at the Ministry of education, science and technology. During these years he was member of many national and international committees and working groups on European level mainly devoted to Bologna process and Lisbon convention.

Honors and Awards

- F. Prešeren Fund Award for Students (1969),
- B. Kidrič Foundation Award for Patents and Innovations (1977),
- B. Kidrič Foundation Award for Outstanding Publications on Liquid Phase Sintering (1981).
- Ambassador of Science of the Republic of Slovenia (National award for outstanding research and international promotion of the Slovenian Science (1994).
- Maks Samec Award for outstanding contribution to achievements of Faculty of Chemistry and Chemical Engineering (2010)
- Dr.Honoris Causa - Clarkson University, USA (2012)
- Gold Plaque: "Pro Universitate Labacensi (2015)
- Professor Emeritus of University of Ljubljana (2016)

Memberships and offices in Scientific and Professional Societies

- Slovenian Chemical Society (Member of *IUPAC* - Secretary 1986-1991, Member of board 1992-),

- Yugoslav Association of Chemist and Chemical Engineers - President 1985-1987 (Elected honorary president since 1988),
- International Society for Stereology (Member 1984- ; Chairman of Committee for Instrumentation (1984 - 1986)),
- International Institute for Science of Sintering – Fellow (2008)
- Slovenian Society of Materials, Member of board (1992 - 2016),
- SATENA - Slovenian Academic Society for Engineering and Natural Sciences (Member 1994)
- Co-chairmen of International Society FORUM Bled (together with Dr. Erhard Busek) (1995 -2012)
- Slovenian Engineering Academy – Fellow (2001-) and President (2013-2019)
- Fellow of International Academy of Engineering, Moscow, (2009-)
- Fellow of The World Academy of Art and Science (2005-)
- Academician of ANURS (2011-)

Other Professional Activities

- Editor: Acta Stereologica, (from 1985 until 1999)
- Member of International Editorial Board: Acta Chimica Slovenica, Image Analysis&Stereology, until 2005), Metals and Alloys, Nova proizvodnja (Modern production), MIDEM Information,
- Board of Boris Kidrič Foundation (Member 1983-1986)
- Committee for Awards in Technical Sciences at Boris Kidrič Foundation; President (1986-1990),
- Board of Directors, TOVIL Company (1991-92),
- Committee for Finances and Methodology at Slovenian Research Association (President 1992 - 93),
- Committee for the Evaluation of Election into Scientific Positions At Slovenian Research Organizations at Ministry for Science and Technology of Republic Slovenia (Member and President for Natural and Technical Sciences since 1995),
- Committee for Evaluation of Slovenian Research Organizations at Ministry for Science and Technology of Republic Slovenia (President 1994-1999),
- Expert of UNIDO for Ceramic Materials - two missions in Turkey 1990
- Technical Committee Chemistry – *EU COST* Action (Member 1990 - 1998),
- Management Committee - *COST* Action, Topic: Chemistry at surfaces and interfaces (President 1993 - 1995),
- Slovenian National *UNESCO* Commission (Member 1993 -2001), President (2001-2003)
- Slovenian National *UNESCO* Committee for Natural Sciences (President 1994 - 2000),
- Member of German - Slovenian Committee for Scientific Cooperation (1993-2000)
- Member of USA - Slovenian Joint Board for Scientific Cooperation (1996-2000)
- Member of Council of Republic of Slovenia for Metrology (1995 - 1998)
- Member of Science and Technology Council of Republic of Slovenia (1994 -1998)
- Member of Slovenian Metrological Council (1997-1999)
- Member of Presidium of Coordination of Slovenian Research Institutions - KORIS (1996 -1998)
- Member of Technology and Development Council at Ministry for Science and Technology (1999)

- Member of Board of Directors of LEK Pharmaceutical Company (1998-2002)
- President of Science and Technology Council of Republic of Slovenia (1999-2001)
- Member of Board of Directors of Geoplin Company (2003-2004) and Geoplin plinovodi Company (2004-2006)
- Member of Scientific Council of UNESCO Regional Office for Science & Technology for Europe in Venice (ROSTE), Italy (2003-2008)
- Member of Board of Governors of University of Ljubljana (2005-2009)
- Member of Senate of University of Ljubljana (2005-2009)
- Vice Chairman of European Monitoring Committee at FEANI (2008-2010)
- Member ESF Standing Committee for Physical and Engineering Sciences (PESC) (2008-2013)
- Member of ESF Materials Science and Engineering Expert Committee (MatSEEC) (2009-2013)
- Member of National Council of Republic of Slovenia (Second House) – representing Higher Education (2013-)
- Member of Euro CASE Board (The European Council of Academies of Applied Sciences, Technologies and Engineering) (2014-)
- President of ZOTK Slovenije (Association for Technical Culture) (2014-)
- President of Regional (SE Europe) Platform for Benchmarking and Cooperation in Higher Education and Research (2014-)
- Slovenian National *UNESCO* Commission, President (2013-)
- Permanent representative of Slovenia, Member of Executive Board of UNESCO (2015-)
- Member of Board of Directors of CAETS (2018-)