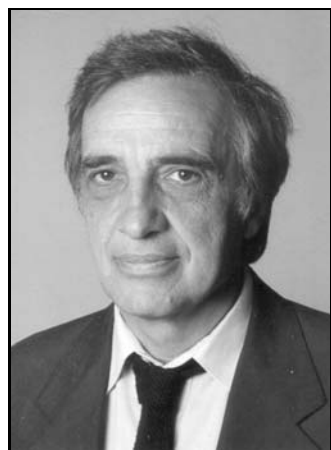


## Obituary

### Prof. Dr. Dušan Vučelić, 1938 – 2000



Dr. Dušan Vučelić, Professor at the Faculty of Physical Chemistry of the Belgrade University, Director of the Institute for General and Physical Chemistry and Head of the Department for Biophysics and Biophysical Chemistry of this Institute, suddenly passed away on August 6, 2000.

Dr. Vučelić was born on July 17, 1938 in Belgrade. He graduated from the Faculty of Physical Chemistry of the Belgrade University, and immediately upon graduation was appointed associate professor. Dr. Vučelić defended his PhD thesis at this Faculty where he later on was appointed all the scientific and academic ranks. In 1983 he was appointed full professor for the fields of Physical Chemistry of Solid State and Biophysical Chem-

istry. Dr. Vučelić pursued specialisation at prestigious scientific centres: Oxford University (UK) (1976), NMR Laboratory at Stanford University (USA) (1980/81), Faculty of Physical Chemistry of Lomonosov University in Moscow (Russia) (1988).

#### Fundamental scientific work

A hundred out of over 140 scientific papers written by Prof. Vučelić were published in international journals (prominent journals of physical chemistry of solid state, biophysics and biophysical chemistry). Most numerous and successful results were obtained on zeolites within the field of physical chemistry of boundary phases. Furthermore, a great number of studies were devoted to NMR analyses of the slate structure. Prof. Vučelić was also famous for his thermal analyses of complex systems, and for remarkable results in biophysics and biophysical chemistry. His most prominent publications included papers on the biochemical bases of the Balkan nephropathy; discovery of phase crossings of complexes with bilious acids; discovery of the mechanism of complexing bilious and fatty acids as the basis for metabolic paths of fatty acids; discovery of new K-channels; discovery of phase crossings in membranes and their relation with water transport processes; discovery of the mechanism of electric charge action on biomacromolecules, etc.

### Applied scientific work

Prof. Vučelić was also very successful insuggesting innovations, technical and processing solutions and instalation of plants for production of his discoveries.

The majority of the solutions pertain to boundary phases and zeolites. A great number of innovative solutions (126) relate to different types of filters. However, the most attractive activities of Prof. Vučelić were accomplished in installing plants based on his technologies:

- plants for liquid silicates production (there are four of them in different countries),
- plants for zeolite production (five plants),
- plant for precipitated silicon production,
- plant for production of molecular sifters,
- plant for production of co-polymers,
- plant for production of detergents.

During the last decade, Prof. Vučelić achieved significant results within the field of Biophysical chemistry, such as:

- device for testing human skin properties (patented in the EU and the USA),
- over 10 metabolic products BIPIN (manufactured by the Institute for General and Physical Chemistry),
- several metabolic products for treating patients suffering from diabetes.

### International awards and Certificates of Recognition

For his successful and creative work, Prof. Vučelić has been awarded many certificates of recognition, awards and medals, such as:

- gold medal at All-Soviet Exhibition of Scientific Achievements (Moscow, 1988),
- “Stepenkoph-Preis“ by the German Society for Colloid Chemistry for the results obtained with zeolites.

A special honour was shown to Prof. Vučelić by the invitation of the Nobel Committee for Chemistry of the Royal Swedish Academy of Science to submit proposals for the Nobel Price in Chemistry for 2001.

Prof. Vučelić held numerous prestigious and reputable offices.

The Yugoslav Society of Biophysicists will remember Professor Dr. Dušan Vučelić as its President of many years. The death of Prof. Vučelić is a tragic loss for the Yugoslav science and his noble family.

*Č. Radenović*