

## LJILJANA KOLAR-ANIĆ

Full member of Serbian Academy of Nonlinear Sciences since 2014. Dr Ljiljana Kolar-Anić is professor emeritus at Faculty of Physical Chemistry, University of Belgrade.

(https://www.bg.ac.rs/sr/univerzitet/prof-emeritus.php)

**Teaching experience at the Faculty of Physical Chemistry:** Professor at courses in Statistical thermodynamics, Dynamics of nonlinear processes, Oscillatory processes in chemistry, physical chemistry and biology and Modeling of complex processes.

**Research Interest**: Multi-disciplinary research interest extending over related topics in Physical Chemistry and Nonlinear Sciences: Chemical Kinetics, Statistical Thermodynamics, Nonlinear Dynamics, Oscillatory Chemical Reactions, Deterministic Chaos, Modeling of Complex Processes in Chemistry, Physical Chemistry and Biology. In particular her research is related to the conditions under which various dynamic states in the chemical and biological systems arise. Model systems for these studies are primarily the Bray-Liebhafsky oscillatory reaction and the hypothalamic-pituitary-adrenal axis.

**Education**: M.Sc. in Physical Chemistry - 1974, "Mathematical Analysis of the Kinetics of the Complex Chemical Reactions", Faculty of Physical Chemistry, University of Belgrade; Ph.D. Physical Chemistry 1978, "Equation of State of the Real Gas in the Gravitational Field", Faculty of Physical Chemistry, University of Belgrade; Postdoctoral Studies – 1978-1979, Service de Chimie Physique II (Department for Theoretical Physical Chemistry) under the government of professor Ilya Prigogine, Universite Libre de Bruxelles, Bruxelles, Belgium

**Membership of Professional Associations:** Full-member of the Serbian Academy of Nonlinear Sciences (<u>http://www.mi.sanu.ac.rs/jann/</u>) Society of Physical Chemists of Serbia

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## **List of 5 Selected Research Publications**

- 1. Z. Jakšić, Micro and Nanophotonics for Semiconductor Infrared Detectors: Towards an Ultimate Uncooled Device, Springer Verlag, Cham, ISBN 978-3-319-09673-5, doi: 10.1007/978-3-319-09674-2, 2014.
- 2. Z. Jakšić, O. Jakšić, "Biomimetic Nanomembranes: An Overview," *Biomimetics*, vol. 5, art. no. 24, pp. 1-46, doi: 10.3390/biomimetics5020024, 2020.
- Z. Jakšić, O. Jakšić, Z. Djurić, C. Kment, "A consideration of the use of metamaterials for sensing applications: field fluctuations and ultimate performance," J. Opt. A. 9, S377– S384, doi: 10.1088/1464-4258/9/9/S16, 2007.
- 4. Z. Jakšić, S. Vuković, J. Matović, D. Tanasković, "Negative Refractive Index Metasurfaces for Enhanced Biosensing," *Materials*, 4 (1), pp. 1-36; doi:10.3390/ma4010001, 2011.
- Z. Jakšić, "Optical metamaterials as the platform for a novel generation of ultrasensitive chemical or biological sensors," in *Metamaterials: Classes, Properties and Applications*, ed. E. J. Tremblay, Nova Science Publishers, Hauppauge, New York, pp. 1-42, 2010, ISBN: 978-1-61668-958-2.

Link to Extended CV: <u>https://www.ffh.bg.ac.rs/zaposleni/lilana-kolar-anic/</u>