

Miloš Mojović, Ph.D.

CURRICULUM VITAE



PERSONAL INFORMATION

Birth Date: January 20, 1973.

Birth place: Belgrade, Serbia

Gender: Male

Nationality: Serbian

CONTACT INFORMATION

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PROFESSIONAL EXPERIENCE

Position: Assistant Professor

Organization name: Faculty of Physical Chemistry

Company: University of Belgrade

Location: Serbia

City: Belgrade

Teaching curriculum (2000-2012):

- Biophysical Chemistry 2
- Membrane transport and signaling
- Application of Computer Science in Physical Chemistry
- Applied Chemistry
- Radiation Chemistry and Dosimetry

Scientific research (2000-2012):

- Research fellow and a member of a Biophysical Scientific Research Team at the Faculty of Physical Chemistry and Institute of Multidisciplinary Research, University of Belgrade, Serbia.

Research projects (2000-2012):

- Spectroscopy of atoms, molecules and supramolecule structures (MNTR 1928), Faculty of Physical Chemistry, University of Belgrade.
- Biophysical research of membrane processes, interaction of membrane receptors and channels with external factors and intercellular regulation (MNTR 143016), Institute of Multidisciplinary research, University of Belgrade.
- Biomarkers in neurodegenerative and malignant processes (III41005), Faculty of Biology and Faculty of Physical Chemistry, University of Belgrade (sub-project chief).

EDUCATION:

B. Sc. (2000) Physical Chemistry, Faculty of Physical Chemistry, University of Belgrade.

M. Sc. (2004) Physical Chemistry, Faculty of Physical Chemistry, University of Belgrade.

Ph. D. (2006) Physical Chemistry, Faculty of Physical Chemistry, University of Belgrade.

CAREER LEVELS:

Assistant Trainee (2000-2004), Faculty of Physical Chemistry, University of Belgrade, Serbia.

Teaching Assistant (2004-2007), Faculty of Physical Chemistry, University of Belgrade, Serbia.

Assistant Professor (2007-2012), Faculty of Physical Chemistry, University of Belgrade, Serbia.

PROFESSIONAL DEVELOPMENT:

University of Oxford, U.K. (2007), Department of Plant Sciences.

INVITED LECTURES:

Castellaneta Marina, Italy (2009).

Oxford University, U.K. (2007).

Davos, Switzerland (2005).

Sofia, Bulgaria (2004).

SKILLS:

- Teaching: as University Professor.
- Scientific research: in the area of Biophysical Chemistry and Redox Biology.
- Scientific instrumentation operation: EPR, NMR, MRI, Raman spectrometer, etc.
- IT Skills: MATLAB, Mathematica, Origin etc.
- Languages: English (Advanced), German (Basic).
- Memberships: Society of Physical Chemists of Serbia, Serbian Chemical Society; Biophysical Society of Serbia (member of steering committee).

RESEARCH AREAS OF INTEREST:

- Detection of free radicals in chemical and biological systems by using EPR and NMR.
- ROS pathways in chemical and biological systems.
- Biomarkers in neurodegenerative and malignant processes.
- Applying advanced mathematical and computing methods for identification of free radicals from the complex EPR signal.
- Development of new contrast agents for MRI.
- EPR dosimetry.

BIBLIOGRAPHY - SELECTED PAPERS:

1. **M. Mojović**, M. Vuletić, G. Bačić and Ž. Vučinić. Oxygen-centered radicals produced by plant plasma membranes: An EPR spin-trap study. *J. Exp. Bot.* 2523-2531 **55** (2004).
2. G. Bačić and **M. Mojović**. EPR spin trapping of oxygen radicals in plants: a methodological overview. *Ann. NY Acad. Sci.* 230-243 **1048** (2005).
3. **M. Mojović**, M. Vuletić, G. Bačić. Detection of oxygen-centered radicals using spin-trap DEPMPO. The effect of oxygen. *Ann. NY Acad. Sci.* 471-475 **1048** (2005).
4. S. Veljović-Jovanović, B. Kukavica, T. Cvetić, **M. Mojović**, Ž. Vučinić, Ascorbic acid and the oxidative processes in pea root cell wall isolates: Characterization by fluorescence and EPR spectroscopy. *Ann. N. Y. Acad. Sci.* 500-504, **1048** (2005).
5. V. Maksimović, **M. Mojović**, G. Neumann, Ž. Vučinić, Nonenzymatic reaction of dihydroxyacetone with hydrogen peroxide enhanced via a fenton reaction. *Ann. N. Y. Acad. Sci.* 461-465, **1048** (2005).
6. **M. Mojović**, I. Spasojević, G. Bačić, Detection of hydrogen atom adduct of spin-trap DEPMPO. The relevance for studies of biological systems. *J. Chem. Inf. Model.* 1716-1718, **45** (2005).
7. **M. Mojović**, I. Spasojević, M. Vuletić, Ž. Vučinić, G. Bačić. EPR spin-probe and spin-trap study of free radicals produced by plant plasma membranes. *J. Serb. Chem. Soc.* 177-186, **70** (2005).
8. V. Maksimović, **M. Mojović**, Ž. Vučinić, Monosaccharide-H₂O₂ reactions as a source of glycolate and their stimulation by hydroxyl radicals. *Carbohydrate Research* 2360-2369, **341** (2006).
9. **Mojović M**, Spasojević I, Spasić M, Bačić G. Fenton reaction produces hydrogen atom [•]H in chemical and biological systems. *Free Rad Res S72* **40** (2006).
10. Spasojević I, **Mojović M**, Stević Z, Batas V, Bačić G, Spasić M, Capacity of cerebrospinal fluid to transform hydrogen peroxide – relation to neurodegenerative changes in ALS. *Free Rad. Res.* S90 **40** (2006).
11. B. Kukavica, A. Mitrovic, **M. Mojović**, S. Veljovic-Jovanovic. Effect of indole-3-acetic acid on pea root growth, peroxidase profiles and hydroxyl radical formation. *Arch. Biol. Sci.* 319-326, **59** (2007).
12. Gođevac D, Vujisic Lj, **Mojovic M**, Ignjatovic A, Spasojevic I, Vajs V, Evaluation of antioxidant capacity of *Allium ursinum* L. volatile oil and its effect on membrane fluidity. *Food Chemistry*: 1692-1700, **107** (2008).
13. Miloš R. Filipović, Katharina Duerr, **Miloš Mojović**, Vladica Simeunović, Robert Zimmermann, Vesna Niketić, Ivana Ivanović-Burmazović, NO Dismutase Activity of Seven-Coordinate Manganese(II) Pentaazamacrocyclic Complexes. *Angew. Chem. Int. Ed.* 8735 –8739, **47** (2008).
14. G Bačić, Ivan Spasojevic, B. Šećerov, **M. Mojović**, Spin-trapping of oxygen free radicals in chemical and biological systems: New traps, radicals and possibilities. *Spectrochim Acta A* 1354-1366, **69** (2008).
15. J. Bogdanović, **M. Mojović**, N. Milosavić, A. Mitrović, Ž. Vučinić, I. Spasojević. Role of fructose in the adaptation of plants to cold-induced oxidative stress. *Eur Biophys J.* 1241–1246, **37** (2008).
16. Ivan Spasojevic, **Milos Mojovic**, Dusko Blagojevic, Snezana D Spasic, David R Jones, Aleksandra Nikolic-Kokic, Mihajlo B Spasic. Relevance of the capacity of phosphorylated fructose to scavenge hydroxyl radical. *Carbohydrate Research.* 80–84, **344** (2009).
17. Gordana Ćirić-Marjanovic, Vera Dondur, Maja Milojević, **Miloš Mojović**, Slavko Mentus, Aleksandra Radulović, Zorica Vuković, Jaroslav Stejskal. Synthesis and Characterization

- of Conducting Self-Assembled Polyaniline Nanotubes/Zeolite Nanocomposite. *Langmuir* 3122-3131, **25** (2009).
18. Biljana Kukavica, **Miloš Mojović**, Željko Vucinic, Vuk Maksimovic, Umeo Takahama and Sonja Veljovic Jovanovic. Generation of Hydroxyl Radical in Isolated Pea Root Cell Wall, and the Role of Cell Wall-Bound Peroxidase, Mn-SOD and Phenolics in Their Production. *Plant Cell Physiol.* 304–317, **50(2)** (2009).
 19. Jelena Živković, Zoran Zeković, Ibrahim Mujić, Dejan Gođevac, **Miloš Mojović**, Aida Mujić, Ivan Spasojević. EPR Spin-Trapping and Spin-Probing Spectroscopy in Assessing Antioxidant Properties: Example on Extracts of Catkin, Leaves, and Spiny Burs of *Castanea sativa*. *Food Biophysics.* 126-133, **4** (2009).
 20. Gordana Ćirić-Marjanović, Ljiljana Dragicević, Maja Milojević, **Miloš Mojović**, Slavko Mentus, Biljana Dojcinović, Budimir Marjanović and Jaroslav Stejskal, Synthesis and Characterization of Self-Assembled Polyaniline Nanotubes/Silica Nanocomposites. *J. Phys. Chem. B* 7116-7127, **113** (2009).
 21. Filipovic Milos R, Koh A, Arbault S, Amatore C, **Mojovic Milos D**, Niketic Vesna P, Ivanovic-Burmazovic Ivana S, A new way to strike the inflammation from both sides: superoxide dismutase mimics as nitric oxide dismutases (Meeting Abstract) *Free Rad. Res.* 51-52, **43** (2009).
 22. Danijela Kojic, Ivan Spasojevic, **Miloš Mojović**, Duško Blagojevic, M. Roger Worland, Gordana Grubor-Lajsic, Mihajlo B. Spasic. Potential role of hydrogen peroxide and melanin in the cold hardiness of *Ostrinia nubilalis* (Lepidoptera: Pyralidae). *Eur. J. Entomol.* 451–454, **106(3)** (2009).
 23. Marko Daković, **Miloš Mojović**, Goran Bačić. EPR study of the production of OH radicals in aqueous solutions of uranium irradiated by ultraviolet light. *J. Serb. Chem. Soc.* 651–661, **74** (2009).
 24. **Miloš Mojović**, Marko Daković, Predrag Banković, Zorica Mojović. Paramagnetic pillared bentonites - The new digestive tract MRI contrast agents. *Appl. Clay Sci.* 191-194, **48** (2010).
 25. Filis Morina, Ljubinko Jovanović, **Miloš Mojović**, Marija Vidovica, Dejana Panković and Sonja Veljović Jovanovic, Zinc-induced oxidative stress in *Verbascum Thapsus* is caused by an accumulation of reactive oxygen species and quinhedrone in the cell wall. *Physiologia Plantarum.* 209–224, **140** (2010).
 26. Ivan Spasojević, **Miloš Mojović**, Zorica Stević, Snežana D. Spasić, David R. Jones, Arian Morina, Mihajlo B. Spasić. Bioavailability and catalytic properties of copper and iron for Fenton chemistry in human cerebrospinal fluid. *Redox Report* 29-35, **15** (2010).
 27. **Miloš Mojović**, Marko Daković, Mia Omerašević, Zorica Mojović, Predrag Banković, Aleksandra Milutinović-Nikolić and Dušan Jovanović. The paramagnetic pillared bentonites as digestive tract MRI contrast agents. *Int. J. Mod. Phys. B* 780-787, **24** (2010).
 28. Dragomir R. Stanisavljev, Maja C. Milenković, **Miloš D. Mojović** and Ana D. Popović-Bijelić, A Potential Source of Free Radicals in Iodine-Based Chemical Oscillators. *J. Phys. Chem. A* 2247–2249, **115** (2011).
 29. Dragomir R. Stanisavljev, Maja C. Milenković, **Miloš D. Mojović**, Ana D. Popović-Bijelić, Oxygen Centered Radicals in Iodine Chemical Oscillators, *J. Phys. Chem. A*, 7955–7958, **115** (2011).
 30. A. Rakić, D. Bajuk-Bogdanović, **M. Mojović**, G. Ćirić-Marjanović, M. Milojević -Rakić, S. Mentus, B. Marjanović, M. Trchovac, J. Stejskal, Oxidation of aniline in dopant-free template-free dilute reaction media, *Materials Chemistry and Physics* 501–510, **127** (2011).

31. Ivan Spasojević, **Miloš Mojović**, Aleksandar Ignjatović, Goran Bačić, The role of EPR spectroscopy in studying of oxidative status of biological systems and antioxidative properties of various compounds. *J. Serb. Chem. Soc.* 647–677, **76** (2011).
32. B. Marjanović, I. Juranić, G. Ćirić-Marjanović, **M. Mojović**, I. Pašti, A. Janošević, M. Trchová, P. Holler, J. Horský, Chemical oxidative polymerization of ethacridine, *Reactive & Functional Polymers* 25–35, **72** (2012).
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34. Aleksandar G. Savić, **Miloš Mojović**, Free Radicals Identification from the Complex EPR Signals by Applying Higher Order Statistics, *Anal. Chem.* dx.doi.org/ 10.1021/ ac300200y (2012).
35. Jasmina M. Dimitrić Marković, Zoran S. Marković, Igor A. Pašti, Tanja P. Brdarić, Ana Popović-Bijelić and **Miloš Mojović**, A joint application of spectroscopic, electrochemical and theoretical approaches in evaluation of the radical scavenging activity of 3-OH flavones and their iron complexes towards different radical species, *Dalton Transactions*, DOI: 10.1039/c2dt30220a (2012).