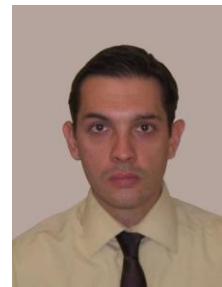


Miloš Mojović, Ph.D.



Personal information

Birth Date: January 20, 1973.

Nationality: Serbian

Education

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

Professional experience

Position: Associate Professor

Organization name: Faculty of Physical Chemistry

Company: University of Belgrade

Location: Belgrade, Serbia

Teaching curriculum

Biophysical Chemistry 2

Membrane transport and signaling

Application of Computer Science in Physical Chemistry 1&2

Radiation Chemistry and Dosimetry

Research areas of interest

EPR spectroscopy and imaging. 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 complex EPR signals. Raman spectroscopy of biosystems. Developing new contrast agents for MRI.

National projects and international cooperation

1. Biomarkers in neurodegenerative and malignant processes -national grant (2011/2017).
2. COST action BM1203 "EU-ROS" (2013/2016).
3. COST action CA15126 "Between Atom and Cell: Integrating Molecular Biophysics Approaches for Biology and Healthcare" (MOBIEU) (2016/2020).
4. COST action BM1401 "Raman-based applications for clinical diagnostics (Raman4clinics)" (2014/2018).

Bibliography

1. J.Petković, I.Mladenović, N.Vukelić, **M.Mojović**, G.Bačić. Lanthanide doped alkaline metal sulphates as candidates for EPR dosimetry. *J. Serb. Chem. Soc.* 743-754, **65** (2000).
2. **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).
3. G.Bačić and **M. Mojović**. EPR spin trapping of oxygen radicals in plants: a methodological overview. *Ann. NY Acad. Sci.* 230-243 **1048** (2005).
4. **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).
5. 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).
6. 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).

7. **M. Mojković**, 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).
8. **M. Mojković**, 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).
9. **Mojović M**, Spasojević I, Spasić M, Bačić G. Fenton reaction produces hydrogen atom $^{\cdot}\text{H}$ 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. V. Maksimović, **M. Mojković**, Ž. Vučinić, Monosaccharide- H_2O_2 reactions as a source of glycolate and their stimulation by hydroxyl radicals. *Carbohydrate Research* 2360-2369, **341** (2006).
12. B. Kukavica, A. Mitrović, **M. Mojković**, 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).
13. G Bačić, Ivan Spasojevic, B. Šećerov, **M. Mojković**, Spin-trapping of oxygen free radicals in chemical and biological systems: New traps, radicals and possibilities. *Spectrochim Acta A* 1354-1366, **69** (2008).
14. J. Bogdanović, **M. Mojković**, 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).
15. Gođevac D, Vujišić Lj, **Mojovic M**, Ignjatovic A, Spasojević 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).
16. Miloš R. Filipović, Katharina Duerr, **Miloš Mojković**, 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).
17. Ivan Spasojevic, **Milos Mojkovic**, 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).
18. Gordana Ćirić-Marjanovic, Vera Dondur, Maja Milojević, **Miloš Mojković**, Slavko Mentus, Aleksandra Radulović, Zorica Vuković, Jaroslav Stejskal. Synthesis and Characterization of Conducting Self-Assembled Polyaniline Nanotubes/Zeolite Nanocomposite. *Langmuir* 3122, **25** (2009).
19. Biljana Kukavica, **Miloš Mojković**, Željko Vučinic, 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).
20. Jelena Živković, Zoran Zeković, Ibrahim Mujić, Dejan Gođevac, **Miloš Mojković**, 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).
21. Gordana Ćirić-Marjanović, Ljiljana Dragicević, Maja Milojević, **Miloš Mojković**, 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).
22. 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).
23. Danijela Kojic, Ivan Spasojevic, **Miloš Mojković**, 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** (2009).
24. Marko Daković, **Miloš Mojković**, 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).
25. **Miloš Mojković**, Marko Daković, Predrag Banković, Zorica Mojković. Paramagnetic pillared bentonites - The new digestive tract MRI contrast agents. *Appl. Clay Sci.* 191-194 **48**(2010).
26. Filis Morina, Ljubinko Jovanović, **Miloš Mojković**, 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 quinhydrone in the cell wall. *Physiologia Plantarum*. 209–224 140 (2010).
27. Ivan Spasojević, **Miloš Mojković**, 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).
28. **Miloš Mojković**, Marko Daković, Mia Omarašević, Zorica Mojković, 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).
29. Dragomir R. Stanislavljev, Maja C. Milenković, **Miloš D. Mojković** and Ana D. Popović-Bijelić, A Potential Source of Free Radicals in Iodine-Based Chemical Oscillators. *J. Phys. Chem. A*, **115** (2011) 2247–2249.
30. Dragomir R. Stanislavljev, Maja C. Milenković, **Miloš D. Mojković**, Ana D. Popović-Bijelić, Oxygen Centered Radicals in Iodine Chemical Oscillators, *J. Phys. Chem. A*, **115** (2011) 7955–7958.

31. A. Rakić, D. Bajuk-Bogdanović, **M. Mojković**, 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).
32. Ivan Spasojević, **Miloš Mojković**, 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).
33. B. Marjanović, I. Juranić, G. Ćirić-Marjanović, **M. Mojković**, I. Pašti, A. Janošević, M. Trchová, P. Holler, J. Horský, Chemical oxidative polymerization of ethacridine, *Reactive & Functional Polymers*, 25–35, **72** (2012).
34. Jelena Dragišić Maksimović, **Miloš Mojković**, Vuk Maksimović, Volker Römhild and Miroslav Nikolić, Silicon ameliorates manganese toxicity in cucumber by decreasing hydroxyl radical accumulation in the leaf apoplast, *J. Exp. Bot.*, 2411-2420, **63** (2012).
35. Aleksandar G. Savić, **Miloš Mojković**, Free Radicals Identification from the Complex EPR Signals by Applying Higher Order Statistics, *Anal. Chem.* 3398-3402, **84** (2012).
36. Jasmina M. Dimitrić Marković, Zoran S. Marković, Igor A. Pašti, Tanja P. Brdarić, Ana Popović-Bijelić and **Miloš Mojković**, 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*, 7295-7303, **41** (2012).
37. Gordana Grubor-Lajšić, Edward T. Petri, Danijela Kojić, Jelena Purać, Željko D. Popović, Roger M. Worland, Melody S. Clark, **Miloš Mojković**, Duško P. Blagojević, Hydrogen peroxide and ecdysone in the cryoprotective dehydration strategy of Megaphorura Arctica (Onychiuridae:Collembola), *Arch. Insect Biochem.* 59-70, **82** (2012).
38. Aleksandra Pavićević, Sofija Glumac, Jelena Sopta, Ana Popović-Bijelić, **Miloš Mojković**, Goran Bačić, Raman microspectroscopy as a biomarking tool for in vitro diagnosis of cancer: a feasibility study. *Croat. Med. J.* 551-557, **53** (2012).
39. Miloš Nikolić, Tatjana Marković, **Miloš Mojković**, Boris Pejin, Aleksandar Savić, Tamara Perić, Dejan Marković, Tatjana Stević, Marina Soković, Chemical composition and biological activity of Gaultheria procumbens L. essential oil, *Industrial Crops and Products* 561–567, **49** (2013).
40. Boris Pejin, Katarina K. Jovanović, **Miloš Mojković** and Aleksandar G. Savić, New and Highly Potent Antitumor Natural Products from Marine-Derived Fungi: Covering the Period from 2003 to 2012, *Curr Top Med Chem*, 2745-2766, **13** (2013).
41. Stanisavljev DR, Milenković MC, Popović-Bijelić A, **Mojković M.** Radicals in the Bray-Liebhafsky oscillatory reaction. *J Phys Chem A*. 3292-3295, **117** (2013).
42. Jelena J. Dragišić Maksimović, Branka D. Živanović, Vuk M. Maksimović, **Miloš D. Mojković**, Miroslav T. Nikolić, Željko B. Vučinić, Filter strip as a method of choice for apoplastic fluid extraction from maize roots. *Plant Science* 49–58, **223** (2014).
43. Okic-Djordjevic Ivana, Trivanovic Drenka, Jovanovic Milos, Ignjatovic Marija, Secerov Bojana Lj, **Mojkovic Milos D**, Bugarski Diana S, Bacic Goran G, Andjus Pavle R, Increased survival after irradiation followed by regeneration of bone marrow stromal cells with a novel thiol-based radioprotector. *Croat. Med. J.* 45-49, **55** (2014).
44. Pejin Boris, Savic Aleksandar G, Petkovic Milena M, Radotic Ksenija, **Mojković Miloš**, In vitro anti-hydroxyl radical activity of the fructooligosaccharides 1-kestose and nystose using spectroscopic and computational approaches, *Int. J. Food Sci. Tech.*, 1500-1505, **49** (2014).
45. Pejin Boris, Savic Aleksandar G, Sokovic Marina D, Glamocilja Jasmina M, Ceric Ana D, Nikolic Milos MN, Radotic Ksenija, **Mojković Miloš**, Further in vitro evaluation of antiradical and antimicrobial activities of phytol, *Nat. Prod. Res.*, 372-376, **28** (2014).
46. Pejin Boris, Savic Aleksandar G, Kien-Thai Yong, **Mojković Miloš**, Further in vitro evaluation of antiradical activity of the moss Rhodobryum ontariense tea using EPR and fluorescence spectroscopy, *Cryptogamie Bryol.*, 173-179, **35** (2014).
47. Boris Pejin, Djura Nakarada, Miroslav Novakovic, Vele Tesevic, Aleksandar Savic, Ksenija Radotic and **Milos Mojkovic**, Antioxidant volatiles of the freshwater bryozoan Hyalinella punctata, *Nat. Prod. Res.*, 1471–1475, **28** (2014).
48. Boris Pejin, Aleksandar G. Savic, Aleksandar Hegedis, Ivo Karaman, Mladen Horvatovic and **Miloš Mojković**. A bryozoan species may offer novel antioxidants with anti-carbon-dioxide anion radical activity. *Nat. Prod. Res.*, 2057-2060, **28** (2014).
49. Boris Pejin, **Miloš Mojković** and Aleksandar G. Savic. Novel and highly potent antitumour natural products from cnidarians of marine origin. *Nat. Prod. Res.*, 2237–2244, **28** (2014).
50. Aleksandra A. Pavićević, Ana D. Popović-Bijelić, Miloš D. Mojković, Snežana V. Šušnjar and Goran G. Bačić, Binding of Doxyl Stearic Spin Labels to Human Serum Albumin: An EPR Study. *J. Phys. Chem. B* 10898–10905, **118** (2014).

51. Jasmina M. Dimitrić Marković, Dejan Milenković, Dragan Amić, **Miloš Mojović**, Igor Pašti and Zoran S. Marković, The preferred radical scavenging mechanisms of fisetin and baicalein towards oxygen-centred radicals in polar protic and polar aprotic solvents, *Dalton Transactions*, 32228-32236, **4** (2014).
52. Dimitrić Marković J, Milenković D, Amić D, Popović-Bijelić A, **Mojović M**, Pašti I, Marković Z. Energy requirements of the reactions of kaempferol and selected radical species in different media: towards the prediction of the possible radical scavenging mechanisms. *Struct. Chem.* 1795-1804, **25** (2014).
53. Felix Bacher, Orsolya Dömötör, Maria Kaltenbrunner, **Miloš Mojović**, Ana Popović-Bijelić, Astrid Gräslund, Andrew Ozarowski, Lana Filipovic, Sinisa Radulović, Éva A. Enyedy, and Vladimir B. Arion, Effects of Terminal Dimethylation and Metal Coordination of Proline-2-formylpyridine Thiosemicarbazone Hybrids on Lipophilicity, Antiproliferative Activity, and hR2 RNR Inhibition, *Inorg. Chem.* 12595–12609, **53** (2014).
54. Nevena Puač, Maja Miletić, **Miloš Mojović**, Ana Popović-Bijelić, Dragana Vuković, Biljana Miličić, Dejan Maletić, Saša Lazović, Gordana Malović, Zoran Lj. Petrović, Sterilization of bacteria suspensions and identification of radicals deposited during plasma treatment. *Open Chem.*, 1–7, **13** (2015).
55. Jelena Dragišić Maksimović, Milena Poledica, Dragosav Mutavdžić, **Miloš Mojović**, Dragan Radivojević, Jasminka Milivojević, Variation in Nutritional Quality and Chemical Composition of Fresh Strawberry Fruit: Combined Effect of Cultivar and Storage, *Plant Foods Hum Nutr* 77–84, **70** (2015).
56. T. Mudrinić, Z. Mojović, A. Milutinović-Nikolić, **M. Mojović**, M. Žunić, N. Vukelić, D. Jovanović, Electrochemical activity of iron in acid treated bentonite and influence of added nickel, *Applied Surface Science* 1037–1045, **353** (2015).
57. Aleksandar G. Savic, Roberto Guidetti, Ana Turi, Aleksandra Pavicevic, Ilaria Giovannini, Lorena Rebecchi and **Milos Mojković**, Superoxide Anion Radical Production in the Tardigrade *Paramacrobiotus richtersi*, the First Electron Paramagnetic Resonance Spin-Trapping Study, *Physiological and Biochemical Zoology: Ecological and Evolutionary Approaches* 451-454, **88** No. 4 (2015).
58. Milica Pešić, Ana Podolski-Renić, Sonja Stojković, Branko Matović, Danica Zmejkoski, Vesna Kojić, Gordana Bogdanović, Aleksandra Pavićević, **Miloš Mojović**, Aleksandar Savić, Ivana Milenković, Aleksandar Kalauzi, Ksenija Radotić. Anti-cancer effects of cerium oxide nanoparticles and its intracellular redox activity. *Chemico-Biological Interactions* 85–93, **232** (2015).
59. Michaela Pyszkova, Michal Biler, David Biederman, Katerina Valentova, Jiri Vrba, Jitka Ulrichova, Romana Sokolova, **Milos Mojkovic**, Ana Popović-Bijelić, Martin Kubala, Patrick Trouillas, Vladimir Kren, Jan Vacek, Flavonolignan 2,3-dehydroderivatives: Preparation, antiradical and cytoprotective activity, *Free Rad. Biol. Med.* 114-125, **90** (2016).
60. Filis Morina, Umeo Takahama, **Miloš Mojović**, Ana Popović-Bijelić, Sonja Veljović-Jovanović, Formation of stable radicals in catechin/nitrous acid systems: Participation of dinitrosocatechin. *Food Chemistry* 1116–1122, **194** (2016).
61. L. Tolić, S. Grujić, **M. Mojović**, M. Jovanović, G. Lubec, G. Baićić and M. Laušević, Determination of anisomycin in tissues and serum by LC-MS/MS: application to pharmacokinetic and distribution studies in rats *RSC Adv.* 92479-92489, **6** (2016), DOI: 10.1039/C6RA16083B. (M21)
62. Jasmina M. Dimitrić Marković, Boris Pejin, Dejan Milenković, Dragan Amić, Nebojša Begović, **Miloš Mojović**, Zoran S. Marković, Antiradical activity of delphinidin, pelargonidin and malvin towards hydroxyl and nitric oxide radicals: The energy requirements calculations as a prediction of the possible antiradical mechanisms, *Food Chemistry* 218 (2017) 440–446. (M21a).

Contact information

E-Mail 1: milos@ffh.bg.ac.rs

E-Mail 2: mojovic@gmail.com

Tel: +381-11-2630796

Fax: +381-11-2187133

Mobile: +381-64-1128379

Address: Studentski trg 12-16, 11000 Belgrade, Serbia

Web: www.bioscope.ffh.bg.ac.rs