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Viši naučni saradnik



Profesionalno iskustvo Oblasti interesovanja Projekti Izabrane publikacije

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Obrazovanje: **1986** Diplomirani hemičar, Hemijski fakultet, Univerzitet u Beogradu.
1988 Specijalista hemijskih nauka, Hemijski fakultet, Univerzitet u Beogradu
1991 Magistar hemijskih nauka, Hemijski fakultet, Univerzitet u Beogradu.
2007 Doktor biohemijskih nauka, Hemijski fakultet, Univerzitet u Beogradu.

Zvanja: **1986** Istraživač pripravnik
1993 Istraživač saradnik
1999 Istraživač saradnik
2008 Naučni saradnik
2014 Viši naučni saradnik

Članstva u društvima: Srpsko hemijsko društvo, član Upravnog odbora
Biohemijsko društvo Srbije
FEBS

Profesionalno iskustvo: **1986-2004** – Institut za nuklearne nauke Vinča, Univerzitet u Beogradu.
2004 – IHTM, Centar za hemiju, Univerzitet u Beogradu.

Nagrade i priznanja: **2004** Nagrada Ministarstva nauke i zaštite životne sredine RS za rezultate postignute tokom projektnog perioda 2002-2004
2011 Zlatna medalja za pronalazaštvo na 31-om međunarodnom sajmu pronalazaštva 2011 sa likom Nikole Tesle za najbolju tehnologiju
2011 Zlatna medalja za pronalazaštvo na 31-om međunarodnom sajmu pronalazaštva 2011 sa likom Nikole Tesle za najbolji proizvod

Oblasti interesovanja: Molekularna osnova transdukcije hormonskih signala;
Interakcija prirodnih proizvoda, sintetičkih derivata i kompleksnih jedinjenja sa nukleinskim kiselinama;
Produkcija i poboljšanje enzima biljnog i mikrobiološkog porekla kao i mikroorganizama koji se koriste u biotehnologiji hrane, proizvodnji bioetanolu i zaštiti životne sredine.

Znanje jezika: Engleski, ruski

Najznačajniji projekti:

Osnovna istraživanja:

1986 – 1990 Molekularno-biološki mehanizmi i neuroendokrine regulacije ćelijskih funkcija. (ev.br. P30)
1991 – 1995 Receptori kao faktori transkripcije i transdukcije ćelijskih signala na regulaciju ćelijskih funkcija
1996 – 2000 Molekularna osnova transdukcije hormonskih signala (ev. br. 03E24)
2000 – 2004 Adaptivni procesi, hormonska regulacija i programirana ćelijska smrt u sisara (ev.br. 1956).
2004 – 2005 Prirodni proizvodi iz biljaka i morskih organizama: Medicinski i ekološki značaj (ev.br. 1755).
2006 – 2010 Interakcije prirodnih proizvoda i njihovih analoga sa proteinima i nukleinskim kiselinama (ev.br. 142026).
2011 – Proizvodnja, izolovanje i karakterizacija enzima u rastvornom i imobilizovanom obliku u biotehnologiji hrane, biogorivima i zaštiti životne sredine (ev.br. 172048)
2011 – Interakcije prirodnih proizvoda, njihovih derivata i kompleksnih jedinjenja sa proteinima i nukleinskim kiselinama ev.br. (172055).

Izabrane publikacije: Publikovani radovi:

1. Filipovic Nenad R, Bjelogrić Snežana K, Marinković Aleksandar D, Verbic Tatjana Z, Cvijetić Ilija N, Sencanski Milan V, Rodić Marko V, **Vujčić Miroslava T**, Sladić Dušan M, Striković Zlatko, Todorović Tamara R, Müller Christian D. Zn(II) complex with 2-quinolinecarboxaldehyde selenosemicarbazone: synthesis,

structure, interaction studies with DNA/HSA, molecular docking and caspase-8 and-9 independent apoptosis induction. *RSC ADVANCES*, (2015), vol. 5 br. 115, str. 95191-95211

2. Tamas Nenad, Dojnov Biljana, Margetic Aleksandra, **Vujcic Miroslava T**, Spirovic Bojana D, Miletic Novica, Stevic Milan, Vujcic Zoran M. Resistance to common organophosphate and carbamate insecticides in *Aphis pomi* (Hemiptera: Aphididae). *FRUITS*, (2015), vol. 70 br. 3, str. 135-142.

3. Vujcic Zoran M, Janovic Barbara S, Loncar Nikola L, Margetic Aleksandra, Bozic Natasa M, Dojnov Biljana, **Vujcic Miroslava T**. Exploitation of neglected horseradish peroxidase isoenzymes for dye decolorization. *INTERNATIONAL BIODETERIORATION & BIODEGRADATION*, (2015), vol. 97, str. 124-127.

4. Leovac Vukadin M, Rodic Marko V, Jovanovic Ljiljana S, Joksovic Milan D, Stanojkovic Tatjana P, **Vujcic Miroslava T**, Sladic Dusan M, Markovic Violeta R, Vojinovic-Jesic Ljiljana S. *EUROPEAN JOURNAL OF INORGANIC CHEMISTRY*, (2015), br. 5, str. 882-895.

5. Markovic Violeta R, Debeljak Nevena, Stanojkovic Tatjana P, Kolundzija Branka S, Sladic Dusan M, **Vujcic Miroslava T**, Janovic Barbara S, Tanic Nikola T, Perovic Milka, Tesic Vesna T, Antic Jadranka A, Joksovic Milan D. Anthraquinone-chalcone hybrids: Synthesis, preliminary antiproliferative evaluation and DNA-interaction studies. *EUROPEAN JOURNAL OF MEDICINAL CHEMISTRY*, (2015), vol. 89, str. 401-410.

6. Milica Milenković, Andrej Pevec, Iztok Turel, **Miroslava Vujčić**, Marina Milenković, Katarina Jovanović, Nevenka Gligorijević, Siniša Radulović, Marcel Swart, Maja Gruden-Pavlović, Kawther Adaila, Božidar Čobeljić, Katarina Anđelković. Synthesis, characterization, DFT calculation and biological activity of square-planar Ni(II) complexes with tridentate PNO ligands and monodentate pseudohalides. Part II. *EUROPEAN JOURNAL OF MEDICINAL CHEMISTRY*, (2014), vol. 87, str. 284-297

7. Milenkovic Milica, Bacchi Alessia, Cantoni Giulia, Vilipic Jovana, Sladic Dusan M, **Vujcic Miroslava T**, Gligorijevic Nevenka N, Jovanovic Katarina K, Radulovic Sinisa S, Andjelkovic Katarina K. Synthesis, characterization and biological activity of three square-planar complexes of Ni(II) with ethyl (2E)-2-[2-(diphenylphosphino)benzylidene]hydrazinecarboxylate and monodentate pseudohalides. *EUROPEAN JOURNAL OF MEDICINAL CHEMISTRY*, (2013), vol. 68, str. 111-120.

8. Violeta Marković, Ana Janićijević, Tatjana Stanojković, Branka Kolundzija, Dusan Sladić, **Miroslava Vujčić**, Barbara Janović, Ljubinka Joksović, Predrag T. Djurdjević, Nina Todorović Snežana Trifunović, Milan D. Joksović. Synthesis, cytotoxic activity and DNA-interaction studies of novel anthraquinoneethiosemicarbazones with tautomerizable methylene group. *European Journal of Medicinal Chemistry* (2013) vol. 64 str. 228-238.

9. Milica Milenković, Alessia Bacchi, Giulia Cantoni, Siniša Radulović, Nevenka Gligorijević, Sandra Arandjelović, Dušan Sladić, **Miroslava Vujčić**, Dragana Mitić, Katarina Anđelković, Synthesis, characterisation and biological activity of Co(III) complex with the condensation product of 2-(diphenylphosphino)benzaldehyde and ethyl carbazate. *Inorganica Chimica Acta* (2013) 395, 33-43.

10. Pavlović R., Grujić M., Dojnov B., **Vujčić M.**, Nenadović V., Ivanović J., Vujčić Z. , Influence of nutrient substrates on the expression of cellulases in *Cerambyx cerd* L. (Coleoptera: Cerambycidae) larvae. *Archives of Biological Science* (2012) 64 (2), 757-765.

11. Dojnov, B., Vujčić, Z., Božić, N., Margetić, A., **Vujčić, M.**, Nenadović, V., Ivanović, J. Adaptations to captive breeding of the longhorn beetle *Morimus funereus* (Coleoptera: Cerambycidae); application on amylase study. *Journal of Insect Conservation* (2012) 16(2), 239-247.

12. Milenković Milica, Warzajtis Beata, Rychlewska Urszula, Radanović Dušanka D, Andjelković Katarina K, Božić Tatjana T, **Vujčić Miroslava**, Sladić Dušan M. Synthesis, Spectral and Solid State Characterization of a New Bioactive Hydrazine Bridged Cyclic Diphosphonium Compound. *Molecules*, (2012), vol. 17 br. 3, str. 2567-2578.

13. Lončar Nikola, Janović Barbara, **Vujčić Miroslava T.**, Vujčić Zoran M. Decolorization of textile dyes and effluents using potato (*Solanum tuberosum*) phenoloxidase. *INTERNATIONAL BIODETERIORATION & BIODEGRADATION*, (2012), 72, 42-45.

14. Lončar, N., Božić, N., Anđelković, I., Milovanović, A., Dojnov, B., **Vujčić, M.**, Roglić, G., Vujčić, Z. Removal of aqueous phenol and phenol derivatives by immobilized potato polyphenol oxidase. *Journal of the Serbian Chemical Society* (2011) 76(4), 513-522.

15. **Vujčić Miroslava**, Lazić Milan J., Milenković Milica, Sladić Dušan M., Radulović Siniša S., Filipović Nenad R., Andjelković Katarina K. A Comparative Study of DNA Binding and Cell Cycle Phase Perturbation by the Dinuclear Complex of Cd(II) with the Condensation Product of 2-Acetylpyridine and Malonic Acid Dihydrazide N',N' 2-bis[(1E)-1-(2-pyridyl) ethylidene] propanedihydrazide. *JOURNAL OF BIOCHEMICAL AND MOLECULAR TOXICOLOGY*, (2011), 25(3), 175-182.

16. Eshkourfu Rabia, Čobeljić Božidar, **Vujčić Miroslava**, Turel Iztok, Pevec Andrej, Sepić Kristina, Zec Manja M., Radulović Siniša S., Srdić-Rajić Tatjana V., Mitić Dragana M., Andjelković Katarina K., Sladić Dušan M. Synthesis, characterization, cytotoxic activity and DNA binding properties of the novel dinuclear cobalt(III) complex with the condensation product of 2-acetylpyridine and malonic acid dihydrazide. *JOURNAL OF INORGANIC BIOCHEMISTRY*, (2011), 105 (9), 1196-1203.

17. Vujčić, Z., Lončar, N., Dojnov, B., Milovanović, A., **Vujčić, M.**, Božić, N. Characterisation of leucyl

aminopeptidase from *Solanum tuberosum* tuber. *Food Chemistry* (2010) 121, 418-423.

18. Vujčić, Z., Milovanović, A., Božić, N., Dojnov, B., **Vujčić, M.**, Andjelković, U., Lončar, N. Immobilization of cell wall invertase modified with glutaraldehyde for continuous production of invert sugar. *Journal of Agricultural and Food Chemistry* (2010) 58(22), 11896–11900.

19. **Vujčić Miroslava T.**, Tufegdzic Srdjan J., Vujčić Zoran M., Gašić Miroslav J., Sladić Dušan M. Interactions of the anti-tumor sesquiterpene hydroquinone avarol with DNA in vitro. *JOURNAL OF THE SERBIAN CHEMICAL SOCIETY*, (2007), 72(12), 1265-1269.

20. Pajić Ivana, Vujčić Zoran M., **Vujčić Miroslava T.**, Novaković Irena T., Sladić Dušan M., Gašić Miroslav J. Chemical modification of the lectin of the marine coral *Gerardia savaglia* by marine quinone avarone. *JOURNAL OF THE SERBIAN CHEMICAL SOCIETY*, (2007), 72(12), 1271-1274.

21. **Vujčić Miroslava T.**, Velicković Nataša A., Ruždijić Sabera D. Dexamethasone treatment affects nuclear glucocorticoid receptor and glucocorticoid response element binding activity in liver of rats (*Rattus norvegicus*) during aging. *COMPARATIVE BIOCHEMISTRY AND PHYSIOLOGY B-BIOCHEMISTRY & MOLECULAR BIOLOGY*, (2007), 148(4), 463-469.

22. **Vujčić Miroslava T.**, Terzić Nataša A, Ristić-Fira Aleksandra M., Kanazir Dušan T., Ruždijić Sabera D. Analysis of nuclear glucocorticoid receptor-DNA interaction in aged rat liver. *JOURNAL OF THE SERBIAN CHEMICAL SOCIETY*, (2005), 70(5), 705-712.

23. Ristić-Fira Aleksandra M., Petrović Ivan M., Todorović Danijela V., Korićanac Lela B., **Vujčić Miroslava T.**, Demajo Miroslav A., Sabini Maria Gabriella., Cirrone Pablo, Cuttone Giacomo. Inactivation of HTB63 human melanoma cells by irradiation with protons and gamma rays. *ONCOLOGY REPORTS*, (2004), 12(6), 1323-1328.

24. Terzić Nataša A., **Vujčić Miroslava T.**, Ristić-Fira Aleksandra M., Krstić-Demonacos Marija, Milanović Desanka J., Kanazir Dušan T., Ruždijić Sabera D. Effects of age and dexamethasone treatment on glucocorticoid response element and activating protein-1 binding activity in rat brain. *JOURNALS OF GERONTOLOGY SERIES A-BIOLOGICAL SCIENCES AND MEDICAL SCIENCES*, (2003), 58(4), 297-303.

25. A. Ristić-Fira, **M. Vujčić**, M. Krstić-Demonacos, D. Kanazir. Identification and characterization of glucocorticoid receptors in B16 mouse melanoma cells. *Endocrine regulations*, **33** 109-115, (1999).

26. **Vujčić M.**, Djordjević-Marković R., Kanazir D.T., Vujčić Z. and Jankov R.M. Partial purification of corticosteroid binder IB by cortexolone-affinity matrix. *Proc. Indian Natn. Sci.Acad.*, **B61(4)**, 249-258, (1995).

27. **Miroslava Vujčić** and Ratko M. Jankov, Microbiologic transformation of progesterone by *Curvularia clavata* Jain, *Steroids* **55**, 17-21, (1990).

28. **Miroslava Vujčić**, Vukić Šoškić, Ratko M. Jankov, David J Williams, Ray Jones, Henry S. Rzepa and Richard N. Shepard, Isolation of the phytotoxin radicinin from *Culvularia clavata* Jain, *Journal of Serbian Chemical Society*, **54**, 687-691, (1989).