

PERSONAL INFORMATION

Marijana Petković



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ORCID: <https://orcid.org/0000-0002-8354-995X>, **ResearcherID:** C-5257-2008 (new: AAD-5772-2019), **Scopus Author ID:** 7006986199; **Ciência ID:** AD15-C921-5954

Gender Female | **Date of birth** 12/10/1971 | **Nationality** Serbian

Completed the PhD (Dr.Rer. Nat.) in Chemistry in 2002/10/21 at University of Leipzig, Faculty of Chemistry and Mineralogy, Germany (Universität Leipzig Fakultät für Chemie und Mineralogie) Magister in Biomedical Engineering in 2000/10/02 at University of Belgrade (Serbia) and Bachelor in Biochemistry in 1994/10/04 at University of Belgrade, Faculty of Chemistry. She is working as the Research Professor at the Department of Atomic Physics, VINČA Institute of Nuclear Sciences, University of Belgrade, National Institute of the Republic of Serbia. Published 70 articles in journals, cited more than 1400 times (h-index 18) and 1 book. Organized around 20 events. Supervised 4 PhD theses, 3 MSc dissertations and 1 work of course completion of LSc/BSc. Participates and/or participated as the investigator in 7 projects.

WORK EXPERIENCE

2018-present

Research Professor

Department of Atomic Physics, "Vinča" Institute of Nuclear sciences, University of Belgrade, Belgrade, Serbia

January 2019-August 2020:

Senior Researcher

CQM- Centro de Química da Madeira, Universidade da Madeira, Funchal

- MALDI TOF MS characterization of natural products, biomolecules, small molecules, inorganic molecules, and synthetic polymers (dendrimers and other polymers);
- Testing nanoparticles and inorganic substrates for detection of small molecules in body fluids;
- Development of the photo-sensitive nanocomposite system based on up-conversion nanoparticles, carbon dots and transition metal complexes for the therapy of cancer.

Business or sector Academia/Public

June-July 2018

Guest Scientist

Institute of Medical Physics and Biophysics, Faculty of Medicine, University of Leipzig, Germany

- Studying the fragmentation pattern of highly sulphated polysaccharides
- Finding the best conditions for analysis and quantification of highly sulphated polysaccharides by MALDI TOF mass spectrometry and ESI MS

Business or sector Academia/Public

2018-present

Research Professor

Department of Atomic Physics, "Vinča" Institute of Nuclear sciences, University of Belgrade, Belgrade, Serbia

(<https://www.vin.bg.ac.rs/istrazivanje/istrazivaci/1285-marijana-petkovic-naucni-savetnik>)

- Coordinating project activities and administration

- Writing project proposals
- Managing experimental work
- Supervising PhD thesis

Business or sector Academia/Public

2012-2018

Research Professor, Head of the Small Molecules Mass Spectrometry and Omics Sector

Department of Physical Chemistry, “Vinča” Institute of Nuclear Sciences, University of Belgrade, Belgrade, Serbia (www.vin.bg.ac.rs/050)

- Coordinating the project activities
- Writing project proposals
- Writing scientific publications
- **Introducing the SGS (Société Générale de Surveillance) quality management system**
- Managing the experimental work
- Administration of Laboratory Protocols
- Supervising PhD thesis

Business or sector Academia/Public

Sept. 2012-Sept. 2014

President of the Scientific Council of the “Vinča” Institute of Nuclear Sciences

Department of Physical Chemistry, “Vinča” Institute of Nuclear Sciences, University of Belgrade, Belgrade, Serbia (www.vin.bg.ac.rs/050)

- Coordinating the work of the Scientific Council (70 scientists)
- Organizing discussions
- Local and national science policies
- Other work in the agreement with the internal documents and the national legislations

Business or sector Academia/Public

2008-2012

Associate Research Professor

Department of Physical Chemistry, “Vinča” Institute of Nuclear sciences, University of Belgrade, Belgrade, Serbia (www.vin.bg.ac.rs/050)

- Writing project proposals
- Writing scientific publications
- Managing the experimental work

Business or sector Academia/Public

Dec. 2006-2008

Associate Research Professor

Institute of Technical Sciences, Serbian Academy of Sciences and Arts, Belgrade, Serbia (www.itn.sanu.ac.rs.)

- Writing scientific publications
- Managing experimental work

Business or sector Academia/Public

2004-July 2005

Postdoc Research Assistant

Institute of Medical Physics and Biophysics, Medical Faculty, University of Leipzig, Leipzig, Germany (www.biophysik.medizin.uni-leipzig.de)

- Writing scientific publications
- Managing the experimental work

Business or sector Academia/Public

Dec 1999- Nov 2002

Research Assistant/PhD student

Institute of Medical Physics and Biophysics, Medical Faculty, University of Leipzig, Leipzig, Germany (www.biophysik.medizin.uni-leipzig.de)

- Working on PhD thesis
- Writing scientific publications
- Managing the experimental work

Business or sector Academia/Public

1994-Dec 1999

Research Trainee

“Vinča” Institute of Nuclear Sciences, University of Belgrade, Belgrade, Serbia (www.vin.bg.ac.rs)

- Working on master thesis
- Writing scientific publications

Business or sector Academia/Public

Two maternity leaves: from Dec 2002. –Dec. 2003., from July 2005.-Dec 2006.

EDUCATION AND TRAINING

Dec 1999-Oct 2002

 Doctor Rerum Naturalium Chemistry/Biochemistry (*Magna Cum Laude*)

PhD

 Faculty of Chemistry and Mineralogy, University of Leipzig, Leipzig, Germany
 Nostrified in 2007 at University of Belgrade as PhD in Chemical Sciences

- Chemistry
- Biochemistry
- Mass Spectrometry

1995-2000

Master of Biomedical Engineering

M.Sci.

University of Belgrade (Centre for Multidisciplinary Studies), Belgrade, Serbia

- Biochemistry
- Immunochemistry

1990-1994

B.Sci. Biochemistry

B.Sci.

Faculty of Chemistry, University of Belgrade, Belgrade, Serbia

- Biochemistry
- Chemistry of Natural Products

EXPERIMENTAL SKILLS

Methodological competences-Methods

All major biochemical/laboratory skills: protein purification and analyses (SDS and native PAGE electrophoresis, SEC, affinity chromatography), immunochemical techniques (Western blot, ELISA), lipid/phospholipid extraction from different sources and human cells (various lipid extraction procedures and lipid analyses by chromatography and mass spectrometry), isolation and culturing the polymorphonuclear leukocytes (neutrophils) from blood, liposome preparation, fluorescence spectroscopy, and other laboratory techniques

Methodological competences-

Major: MALDI TOF mass spectrometry (AB Sciex/Voyager DE and DE Pro, Bruker Autoflex Speed, Bruker Autoflex MaX), UV/Vis spectroscopy and

chemiluminescence, fluorescence spectroscopy, HPTLC, various systems for electrophoresis, western blot and ELISA readers, experience in microscopy and fluorescence microscopy, (FT)IR, LC and LC/MS systems (Waters and Shimadzu); Electropray ionization (Bruker)

RESEARCH INTERESTS

Previous Investigation of the anti-HIV antibody cross-reactivity with collagen-like human proteins; expression of heat shock proteins in colorectal carcinoma; analysis of lipids and phospholipids by MALDI TOF mass spectrometry; oxidative activity of human neutrophils and lipids second messengers.

Current Development of nanoparticle-based substrates for qualitative and quantitative analyses of small molecules (hormones, lipids, carbohydrates, vitamins, heavy metals); interaction of transition metal complexes with human proteins; development of the photosensitive nano-composite systems for metallo-drug delivery and therapy of carcinoma.

Major achievements

Experimental proof of the dependence of the MALDI MS signal intensity with the ionization state; MALDI MS analyses of complex lipid/phospholipid mixtures; foundation of the mass spectrometry laboratory in VINČA; establishment of new nanoparticle-based substrates for MALDI MS analyses of small molecules; supervision of 5 PhD theses; development and initiation of the programmes for science education and promotion of science activities; starting new research topic in VINČA.

PERSONAL SKILLS

Languages Communication skills

Serbian (mother tongue), English, German, Russian

- good communication skills
- good communication skills (also moderating skills) gained through the engagement as the President of the Scientific Council and organization of round tables and discussion groups
- good communication and presentation skills gained through my experience in the science education activities with high school students

Organisational / management skills

- leadership
- management of the project activities
- presidency of the Scientific Council, which brought some local policies

Job-related skills

- good writing skills of both research papers and project proposals
- good analytical laboratory skills
- reviewer for journals such as Analyst, Analytical and Bioanalytical Chemistry, Metallomics, Rapid Communications in Mass Spectrometry, Talanta, and others.
- good problem solving skills

Digital skills

- Office suite (word processor, spread sheet, presentation software)
- Photo editing software gained as an amateur photographer

- Good data processing skills (equipment –related software)

Driving licence B category, Active driver

Publications Author of 69 scientific publications cited more than 1400 times, according to the Scopus database (publication list attached to the message)
 Publication list can be found at <https://orcid.org/0000-0002-8354-995X> and other profiles enclosed within the publication list;
 Author of the monograph “MALDI TOF Mass Spectrometric Analysis of Lipids and Phospholipids

- Projects**
- Bilateral project Serbia-Germany (2009-2010)-Project Leader of the Serbian side
 - Several national projects related to the promotion of science/annual projects supported by the City of Belgrade (Open door festival, Science Classrooms), from 2009-2019.
-Funding Agencies and budget: Belgrade City Council (3 times around 10 000 EUR each project), Centre for Promotion of Sciences (2 times 10 000 EUR), Ministry of Sport and Youth of the Republic of Serbia (5000 EUR), Ministry of Education of the Republic of Serbia (5000 EUR); Private companies (ERSTE Bank Serbia and Telekom Serbia-Each around 10 000 EUR)
 - Multilateral cooperation in the Danube Region-DANOMICS 2017-2018 (Serbia-Austria-Czech Republic-Slovak Republic), Initiator, main contributor and Project Leader of the Serbian side;
- Funding Agencies and budget: Each Country had own sources, Serbian Ministry of Education, Science and Technological Development was on Serbian side (10000 EUR)
 - ICM KA1 Erasmus+ project with University of Madeira, Portugal
 - Technical Assistance Facility of the Danube Region Projects-DANOMICS 2015.
- Funding Agencies and budget: Danube Region Projects (25 000 EUR)
 - National projects-Mechanistic aspects of the interaction of ions of the transition metal complexes with biologically-relevant molecules. Leader at the “Vinča” Institute of Nuclear Sciences (ongoing national project).
 - MC Member of COST Actions (D39, BMB 1104, BM1403)

Memberships

- Founder and former president of the Society of Researchers Vinča
- Member of the Optical Society of Serbia
- Member and former member of MC board of the Serbian Proteome Association
- Member of the Serbian Chemical Society

Marijana Petković

Publication List-selection June 2021, newest first

ORCID: <https://orcid.org/0000-0002-8354-995X>, ResearcherID: AAD-5772-2019, Scopus Author ID: 7006986199, Ciência ID: AD15-C921-5954

1. Jovanović-Stević, S., Radisavljević, S., Scheurer, A., Čočić, D., Šmit, B., **Petković, M.**, Živanović, M.N., Virijević, K., Petrović, B. Bis(triazinyl)pyridine complexes of Pt(II) and Pd(II): Studies of the nucleophilic substitution reactions, DNA/HSA interactions, molecular docking and biological activity, *J Biol Inorg Chem*, *in press*
2. Liang, X., Xie, Y., Wu, J., Wang, J., **Petković, M.**, Stepić, M., Zhao, J., Ma, J., Mi, L. Functional titanium dioxide nanoparticle conjugated with phthalocyanine and folic acid as a promising photosensitizer for targeted photodynamic therapy in vitro and in vivo. *J Photochem Photobiol B: Biology*, 215(2021) 112122, <https://doi.org/10.1016/j.jphotobiol.2020.112122>
3. Nešić, M.D., Dučić, T., Liang, X., Algarra, M., Mi, L., Korićanac, L., Žakula, J., Kop, T.J., Bjelaković, M.S., Mitrović, A., Gojgić-Cvijoić, G.D., Stepić, M., **Petković, M.** SR-FTIR spectro-microscopic interaction study of biochemical changes in HeLa cells induced by Levan-C₆₀, Pullulan-C₆₀, and their cholesterol-derivatives. *Int J Biol Macromol*, 165 (2020) 2541–2549, <https://doi.org/10.1016/j.ijbiomac.2020.10.141>
4. Perestrelo, R., **Petković, M.**, Silva, C.L. Analytical platforms for the determination of phospholipid turnover in breast cancer tissue: Role of phospholipase activity in breast cancer development, *Metabolites*, 11(2021) 32, <https://doi.org/10.3390/metabo11010032>
5. Houdová, D., Soto, J., Castro, R., Rodrigues, J., Pino-Gonzalez, M^a S., **Petković, M.**, Bandosz, T.J., Algarra, M. Chemically heterogeneous carbon dots enhanced cholesterol detection by MALDI TOF mass spectrometry. *J Coll Inter Sci*, 591 (2021) 373–383 <https://doi.org/10.1016/j.jcis.2021.02.004>
6. Silva, C.L., Perestrelo, R., Sousa-Ferreira, I., Capelina, F., Câmara, J.C., **Petković, M.** Lipid biosignature of breast cancer tissues by matrix-assisted laser desorption/ionization time-of-flight mass spectrometry, *Breast Cancer Res Treat.* 182 (2020) 9–19. <https://doi.org/10.1007/s10549-020-05672-9>.
7. Matijević, M., Nakarada, Đ., Liang, X., Korićanac, L., Rajsiglova, L., Vannucci, L., M. Nešić, M. Vranješ, M. Mojović, L. Mi, I. Estrela-Lopis, J. Böttner, Z. Šaponjić, **M. Petković**, M. Stepić, Biocompatibility of TiO₂ prolate nanospheroids as a potential photosensitizer in therapy of cancer, *J Nanopart Res.* 22 (2020) 175. <https://doi.org/10.1007/s11051-020-04899-3>.
8. N. Nunes, I. Popović, E. Abreu, D. Maciel, J. Rodrigues, J. Soto, M. Algarra, **M. Petković**, Detection of Ru potential metallodrug in human urine by MALDI-TOF mass spectrometry: Validation and options to enhance the sensitivity, *Talanta.* 222 (2021) 121551. <https://doi.org/10.1016/j.talanta.2020.121551>.
9. Bonet-San-Emeretio, M., Algarra, M., **Petković, M.**, Valle, M. Modification of Electrodes with N- and S- doped carbon dots. Evaluation of the electrochemical response. *Talanta* 212 (2020) 120806, <https://doi.org/10.1016/j.talanta.2020.120806>
10. Ivanovic, M., Kljajevic, LJ, Gulicovski, J., **Petković, M.**, Jankovic-Castvan, I., Bucevac, D., Nenadovic, S. The effect of the concentration of alkaline activator and aging time on the structure of metakaolin based polymer. *Sci Sint.*, 52 (2020) 1-11; <https://doi.org/10.XXXX/IIIIIIIIII>
11. **Petković, M.**, Leopold, J., Popović, I., Dimić, D., Ilić, J., Nenadović, M., Rakočević, Z., Schiller, J. Performances of ionic liquid matrices with butyl ammonium counterion for matrix-assisted laser desorption/ionization mass spectrometric detection and analysis of sucralfate. *J. Carbohydr. Chem*, 39(2020) 1-23, doi: 10.1080/07328303.2019.1669633.
12. Radisavljević, S., Čočić, D., Jovanović, S., Šmit, B., **Petković, M.**, Milivojević, N., Marković, S., Petrović, B. Synthesis, characterization, DFT study, DNA/BSA-binding affinity, and cytotoxicity of some dinuclear and trinuclear gold(III) complexes. *J. Biol. Inorg. Chem.* 24 (2019) 1057-1076., doi: 10.1007/s00775-019-01716-8
13. Miletić Vukajlović, J. Drakulić, D., Pejić, S., Ilić, T.V., Stefanović, A., **Petković, M.**, Schiller, J. Increased plasma phosphatidylcholine/lysophosphatidylcholine ratios in patients with Parkinson's disease. *Rapid Commun. Mass Spectrom.* *in press* doi: 10.1002/rcm.8595

14. Nišavić, M., Janjić, G., Hodžić, A., **Petković, M.**, Milčić, M., Vujčić, Z., Cindrić, M. Positive and negative nano-electrospray mass spectrometry of ruthenated serum albumin supported by docking studies: an integrated approach towards defining metallo-drug binding sites on proteins. *Metallomics* 10 (2018) 587-594, doi: 10.1039/c7mt00330g
15. Matijević, M., Nešić, M., Stepić, M., Radoičić, M., Šaponjić, Z., **Petković, M.** Light controllable TiO₂ nanocomposite system encapsulated in phospholipid unilamellar vesicles for anti-cancer photodynamic therapy. *Opt. Quan. Electron.* 50 (2018) 232 doi: 10.1007/s11082-018-1495-z
16. Rajčić, B., Dimitrijević, S., **Petković, M.**, Nišavić, M., Cindrić, M., Veljković, F., Veličković, S. Gold chloride cluster ions generated by vacuum laser ablation. *Opt. Quan. Electron.* 50(2018) 218, doi: 10.1007/s11082-018-1476-2
17. Miletić, J. Drakulić, D., Pejić, S., **Petković, M.**, Ilić, T., Miljković, M., Stefanović, A., Prostran M., Stojanov, M. Prooxidant-antioxidant balance, advanced oxidation protein products and lipid peroxidation in Serbian patients with Parkinson's disease. *Int. J. Neurosci.* 128 (2018) 600-607, doi: 10.1080/00207454.2017.1403916
18. Nešić, M., Žakula, J., Korićanac, L., Stepić, M. Radoičić, M., Popović, I., Šaponjić, Z., **Petković, M.** Light controlled metallo-drug delivery system based on the TiO₂-nanoparticles and Ru-complex. *J. Photochem. Photobiol.* 347 (2017) 55-66 doi: 10.1016/j.jphotochem.2017.06.045
19. Dimkić, T., Stanković, S., Nišavić, M., **Petković, M.**, Ristivojević, P., Fira, Dj., Berić, T. The profile and antimicrobial activity of *Bacillus* lipopeptide extracts of five potential biocontrol strains. *Front. Microbiol.* 8 (2017) Art. No. 925, doi: 10.3389/fmicb.2017.00925
20. Kamčeva, T., Nešić, M., Stojiljković, M., Miletić, J., Rajčić, B., **Petković, M.**, Veličković, S. Determination of isotopic distribution of lead by a matrix-assisted laser desorption/ionization versus laser desorption/ionization time of flight mass spectrometry. *Hem. Ind.* 71 (2017) 19-26 doi: 10.2298/HEMIND151218013K
21. Rakić-Kostić T., Bogojeski, J., Popović, I., Nešić, M., Rajčić, B., Nišavić, M., **Petković, M.**, Veličković, S. Experimental design for optimizing MALDI TOF-MS analysis of palladium complexes. *Hem. Ind.* 71 (2017) 281-288. Doi: 10.2298/HEMIND160614038R
22. Nenadović, S., Kljajević, Lj, Nešić, M., **Petković, M.**, Trivunac, K. Structure analysis of geopolymers synthesized from clay originated from Serbia (2017). *Envir. Earth Sci.*, 76:79 doi: 10.1007/s12665-016-6360-4
23. Nešić, M., Popović, I., Leskovac, A., **Petković, M.** Biological activity and binding properties of [Ru(II)(dcbpy)₂Cl₂] complex to bovine serum albumin, phospholipase A₂ and glutathione.(2016) *BioMet.*, 29 (5), pp. 921-933 doi: 10.1007/s10534-016-9964-y
24. Popović, I., Nešić, M., Vranješ, M., Šaponjić, Z., **Petković, M.** SALDI-TOF-MS analyses of small molecules (citric acid, dexamethasone, vitamin E and A) using TiO₂ nanocrystals as substrates. (2016) *Anal. Bioanal. Chem.*, 408, pp. 7481-7490 doi: 10.1007/s00216-016-9846-8
25. Nišavić, M., Masnikosa, R., Butorac, A., Perica, K., Rilak, A., Korićanac, L., Hozić, A., **Petković, M.**, Cindrić, M. Elucidation of the binding sites of two novel Ru(II) complexes on bovine serum albumin.(2016) *J. Inorg. Biochem.*, 159, pp. 89-95. Doi: 10.1016/j.jinorgbio.2016.02.034
26. Popović, I., Milovanović, D., Miletić, J., Nešić, M., Vranješ, M., Šaponjić, Z., **Petković, M.** Dependence of the quality of SALDI TOF MS analysis on the TiO₂ nanocrystals' size and shape. (2016) *Opt. Quant. Electron.*, 48 (2), art. no. 113, pp. 1-6. Doi: 10.1007/s11082-016-0413-5
27. Nešić, M., Popović, I., Leskovac, A., Šaponjić, Z., Radoičić, M., Stepić, M., **Petković, M.** Testing the photo-sensitive nanocomposite system for potential controlled metallo-drug delivery. (2016) *Opt. Quant. Electron.*, 48 (2), art. no. 119, pp. 1-7. Doi: 10.1007/s11082-016-0421-5
28. Popović, I., Nešić, M., Vranješ, M., Šaponjić, Z., **Petković, M.** TiO₂ nanocrystals - Assisted laser desorption and ionization time-of-flight mass spectrometric analysis of steroid hormones, amino acids and saccharides. Validation and comparison of methods. (2016) *RSC Adv.*, 6 (2), pp. 1027-1036 doi: 10.1039/c5ra20042c
29. Jovanović, S., Petrović, B., **Petković, M.**, Bugarčić, Ž. D. Kinetics and mechanism of substitution reactions of the new bimetallic [$\{\text{PdCl}(\text{bipy})\}\{\mu\text{-(NH}_2\text{(CH}_2\text{)}_2\text{H}_2\text{N)}\}\{\text{PtCl}(\text{bipy})\}\}$] Cl(ClO₄) complex with important bio-molecules.(2015) *Polyhedron*, 101, art. no. 11535, pp. 206-214, doi: 10.1016/j.poly.2015.09.021
30. Popović, I., Nešić, M., Nišavić, M., Vranješ, M., Radetić, T., Šaponjić, Z., Masnikosa, R., **Petković, M.** Suitability of TiO₂ nanoparticles and prolate nanospheroids for laser desorption/ionization mass

- spectrometric characterization of bipyridine-containing complexes. (2015) *Mat. Lett.*, 150, pp. 84-88 doi: 10.1016/j.matlet.2015.03.004:
31. Jovanović, S., Bogojeski, J., **Petković, M.**, Bugarčić, Z.D. Interactions of nitrogen-donor bio-molecules with dinuclear platinum(II) complexes. (2015) *J. Coordin. Chem.*, 68 (17-18), pp. 3148-3163. doi: 10.1080/00958972.2015.1048240
 32. Romić, S., Tepavčević, S., Žakula, Z., Milosavljević, T., Kostić, M., **Petković, M.**, Korićanac, G. Gender differences in the expression and cellular localization of lipin 1 in the hearts of fructose-fed rats.(2014) *Lipids*, 49 (7), pp. 655-663 doi: 10.1007/s11745-014-3909-4
 33. Kamčeva, T., Radisavljević, M., Vukićević, I., Arnhold, J., **Petkovic, M.** Interactions of platinum and ruthenium coordination complexes with pancreatic phospholipase A₂ and phospholipids investigated by MALDI TOF mass spectrometry. (2013) *Chem. Biodiv.*, 10 (11), pp. 1972-1986 doi: 10.1002/cbdv.201300141
 34. Rastegari, A.A., Buzari, B., Pavelkic, V., Gopcevic, K., **Petkovic, M.**, Bordbar, A.-K. Thermal denaturation of pepsin at acidic media: Using DSC, MALDI-TOF MS and PAGE techniques.(2013) *Thermochim. Acta*, 568, pp. 165-170 doi: 10.1016/j.tca.2013.06.030
 35. Radisavljević, M., Kamčeva, T., Vukićević, I., Nišavić, M., Milovanović, M., **Petković, M.** Sensitivity and accuracy of organic matrix-assisted laser desorption and ionisation mass spectrometry of FeCl₃ is higher than in in matrix-free approach. (2013) *Eur. J. Mass Spectrom.*, 19 (2), pp. 77-89 doi: 10.1255/ejms.1217
 36. Radisavljević, M., Kamčeva, T., Bugarčić, Ž.D., **Petković, M.** Inhibitory effect of cisplatin and [Pt(dach)Cl₂] on the activity of phospholipase A₂.(2013) *J. Enz. Inhib. Med. Chem.*, 28 (4), pp. 651-660 doi: 10.3109/14756366.2012.666539
 37. Korićanac, G., Tepavčević, S., Romić, S., Živković, M., Stojiljković, M., Milosavljević, T., Stanković, A., **Petković, M.**, Kamčeva, T., Žakula, Z. Estradiol enhances effects of fructose rich diet on cardiac fatty acid transporter CD36 and triglycerides accumulation. (2012) *Eur. J. Pharmacol.*, 694 (1-3), pp. 127-134 doi: 10.1016/j.ejphar.2012.08.007
 38. Radisavljević, M., Kamčeva, T., Vukićević, I., Radoičić, M., Šaponjić, Z., **Petković, M.** Colloidal TiO₂ nanoparticles as substrates for M(S)ALDI mass spectrometry of transition metal complexes. (2012) *Rapid Commun. Mass Spectrom.*, 26 (17), pp. 2041-2050 doi: 10.1002/rcm.6320
 39. Andjelković, U., Theisgen, S., Scheidt, H.A., **Petković, M.**, Huster, D., Vujčić, Z. The thermal stability of the external invertase isoforms from *Saccharomyces cerevisiae* correlates with the surface charge density. (2012) *Biochimie*, 94 (2), pp. 510-515 doi: 10.1016/j.biochi.2011.08.020
 40. Damnjanović, B., Petrović, B., Dimitrić-Marković, J., **Petković, M.** Comparison of MALDI-TOF mass spectra of [PdCl(dien)]Cl and [Ru(en) 2Cl₂]Cl acquired with different matrices. (2011) *J. Serb. Chem. Soc.*, 76 (12), pp. 1687-1701 doi: 10.2298/JSC110201145D
 41. Kameva, T., Flemmig, J., Damnjanović, B., Arnhold, J., Mijatović, A., **Petković, M.** Inhibitory effect of platinum and ruthenium bipyridyl complexes on porcine pancreatic phospholipase A₂. (2011) *Metallomics*, 3 (10), pp. 1056-1063 doi: 10.1039/c1mt00088h
 42. **Petković, M.**, Kamčeva, T. FAB, ESI and MALDI mass spectrometric methods in the study of metallo-drugs and their biomolecular interactions. (2011) *Metallomics*, 3 (6), pp. 550-565 doi: 10.1039/c0mt00096e
 43. Damnjanović, B., Kameva, T., Petrović, B., Bugarčić, Z.D., **Petković, M.** Laser desorption and ionization time-of-flight versus matrix-assisted laser desorption and ionization time-of-flight mass spectrometry of Pt(II) and Ru(III) metal complexes. (2011) *Anal. Met.*, 3 (2), pp. 400-407 doi: 10.1039/c0ay00517g
 44. **Petković, M.**, Petrović, B., Savić, J., Bugarčić, Z.D., Dimitrić-Marković, J., Momić, T., Vasić, V. Flavonoids as matrices for MALDI-TOF mass spectrometric analysis of transition metal complexes. (2010) *Int. J. Mass Spectrom.*, 290 (1), pp. 39-46 doi: 10.1016/j.ijms.2009.12.001
 45. Vujačić, A., Bugarčić, Z.D., Schiller, J., Vasić, V., **Petković, M.** Matrix-assisted laser desorption and ionisation time-of-flight mass spectrometry of Pt(II) and Pd(II) complexes. (2009) *Polyhedron*, 28 (14), pp. 2905-2912 doi: 10.1016/j.poly.2009.06.055
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