

ИНСТИТУТ ЗА ФИЗИКУ			
ПРИМЛ ЕНО: 04-05-2017			
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НАУЧНОМ ВЕЋУ
ИНСТИТУТА ЗА ФИЗИКУ, Београд

Предмет: Захтев за покретање поступка за реизбор у звање
 Виши научни сарадник

Молим Научно веће Института за физику да у складу са Законом о научно-истраживачкој делатности покрене поступак за мој реизбор у звање Виши научни сарадник.

Прилози:

1. Сагласност руководиоца пројекта и предлог чланова Комисије.
2. Биографски подаци са библиографијом
3. Кратки опис научне и стручне активности


ПОТПИС
Др Радмила Панајотовић

04. Мај 2017.

Сагласност руководиоца пројекта и предлог чланова Комисије за писање извештаја

Др Радмила Панајотовић је од новембра 2012. године ангажована са пуних дванаест истраживачких месеци на пројекту ОИ171005 „Физика уређених наноструктура и нових материјала у фотоници“, под мојим руководством, а на посебним задацима експерименталног истраживања везаним за нови правац истраживања у оквиру наведеног пројекта. Тема истраживања Др Панајотовић је испитивање морфолошких, електричних и хемијских особина самоорганизујућих органских молекулских структура формираних на проводним и диелектричним супстратима, са посебним нагласком на силицијум диоксид и 2Д-материјале, као што је графен. Циљ испитивања оваквих хетероструктура је градња ефикасних и робусних биохемијских и фото-сензора, као и осетљивих детектора наелектрисаних честица. Овај правац истраживања је потпуно нов и у оквиру Института за физику и шире, у Србији. Др Панајотовић у својим истраживањима примењује методе Атомске микроскопије силе, микроскопије Келвиновом пробом, фотоелектронске и инфрацрвене спектроскопије, и многе друге. Такође, она је истраживач са установљеном научном репутацијом ($h - index = 13$, Googl Scholar), била је активна и у организационим активностима, као генерални секретар две међународне конференције, и у сарадњи са страним лабораторијама. Моментално је ментор докторског студента.

Сагласан сам са кандидатуром Др Радмиле Панајотовић за реизбор у звање Виши научни сарадник и предлажем следеће чланове Комисије за писање извештаја:

- **Др Радош Гајић** – Научни саветник, Институт за физику, Београд
Главне области истраживања Др Гајића су метаматеријали, фотонски кристали, елипсометрија, нано-оптика, високо-температурска суперпроводност и графенски материјали
- **Др Братислав Маринковић** – Научни саветник, Институт за физику,
Главне области истраживања Др Маринковића су електронска и ласерска спектроскопија атома и молекула (укључујући биомолекуле).
- **Др Јелена Трајић**, Виши научни сарадник Института за физику, Београд
Главне области истраживања Др Трајић су оптичка својства полупроводника, полумагнетних полупроводника и диелектрика, динамика решетке, Инфра-црвена и Раман спектроскопија.
- **Проф. Др Сунчица Елезовић-Хацић** – Редовни професор Физичког факултета Универзитета у Београду
Главне области истраживања Професорке Елезовић-Хацић су полимерне структуре и неуређени органски и неоргански системи

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Руководилац пројекта ОИ171005
Др Радош Гајић

у Београду, 04. 05. 2017.

Сагласност руководиоца пројекта и предлог чланова Комисије за писање извештаја

Др Радмила Панајотовић је од новембра 2012. године ангажована са пуних дванаест истраживачких месеци на пројекту ОИ171005 „Физика уређених наноструктура и нових материјала у фотоници“, под мојим руководством, а на посебним задацима експерименталног истраживања везаним за нови правац истраживања у оквиру наведеног пројекта. Тема истраживања Др Панајотовић је испитивање морфолошких, електричних и хемијских особина самоорганизујућих органских молекулских структура формираних на проводним и диелектричним супстратима, са посебним нагласком на силицијум диоксид и 2Д-материјале, као што је графен. Циљ испитивања оваквих хетероструктура је градња ефикасних и робусних биохемијских и фото-сензора, као и осетљивих детектора наелектрисаних честица. Овај правац истраживања је потпуно нов и у оквиру Института за физику и шире, у Србији. Др Панајотовић у својим истраживањима примењује методе Атомске микроскопије силе, микроскопије Келвиновом пробом, фотоелектронске и инфрацрвене спектроскопије, и многе друге. Такође, она је истраживач са установљеном научном репутацијом ($h - index = 13$, *Googl Scholar*), била је активна и у организационим активностима, као генерални секретар две међународне конференције, и у сарадњи са страним лабораторијама. Моментално је ментор докторског студента.

Сагласан сам са кандидатуром Др Радмиле Панајотовић за реизбор у звање Виши научни сарадник и предлажем следеће чланове Комисије за писање извештаја:

- **Др Радош Гајић** – Научни саветник, Институт за физику, Београд
Главне области истраживања Др Гајића су метаматеријали, фотонски кристали, елипсометрија, нано-оптика, високо-температурска суперпроводност и графенски материјали
- **Др Братислав Маринковић** – Научни саветник, Институт за физику,
Главне области истраживања Др Маринковића су електронска и ласерска спектроскопија атома и молекула (укључујући биомолекуле).
- **Др Јелена Трајић**, Виши научни сарадник Института за физику, Београд
Главне области истраживања Др Трајић су оптичка својства полупроводника, полумагнетних полупроводника и диелектрика, динамика решетке, Инфра-црвена и Раман спектроскопија.
- **Проф. Др Сунчица Елезовић-Хацић** – Редовни професор Физичког факултета Универзитета у Београду
Главне области истраживања Професорке Елезовић-Хацић су полимерне структуре и неуређени органски и неоргански системи

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Руководилац пројекта ОИ171005
Др Радош Гајић

у Београду, 04. 05. 2017.

Curriculum Vitae

Dr Radmila Panajotović

Prethodne i sadašnje pozicije (zaposlenje)

07. 2012. - Viši nučni saradnik, Institut za fiziku, Beograd
Projekat OI171005 „Fizika uređenih nanostruktura i novih materijala u fotonici“
07. 2011. - 05. 2012. Naučni saradnik Instituta za fiziku, Beograd, Srbija; projekti - „Elektronske, transportne i optičke osobine nanofaznih materijala“ (171033), a drugim na projektu „Fizika uređenih nanostruktura i novih materijala u fotonici“ (171005), finansiranim od strane Ministarstva za Nauku i Prosvetu Republike Srbije.
10. 2007. – 11. 2010. Postdoktorska pozicija (Research Fellow) u Centru za fiziku i astronomiju, na Otvorenom Univerzitetu (Open University), Milton Kijns (Milton Keynes), Velika Britanija
03. 2004 - 02. 2007. Postdoktorska pozicija u Centru za nuklearnu medicinu i radiobiologiju Univerzitet u Šerbruku (University of Sherbrooke), Šerbruk (Sherbrooke), Kvebek, (Quebec), Kanada
11. 1999 - 11. 2003. Postdoktorska pozicija u Laboratoriji za atomsku i molekularnu fiziku (Atomic and Molecular Physics Laboratory), Istraživačka škola fizike i inženjerstva (Research School of Physical Sciences and Engineering), Australijski nacionalni univerzitet (Australian National University), Kanbera, Australija
- 10.1989. – 11. 1999. Magistarske i doktorske studije u Institutu za fiziku, Beograd, Jugoslavija/ Srbija

Akademsko obrazovanje i trening

06. 07. 1999. **Doktorat** iz oblasti eksperimentalne fizike atoma i molekula, Fizički fakultet, Univerzitet u Beogradu, Beograd, Jugoslavija
24. 06. 1993. **Magistarski rad** iz oblasti eksperimentalne fizike atoma i molekula, Fizički fakultet, Univerzitet u Beogradu, Beograd, Jugoslavija
14. 07. 1989. **Diplomski rad** iz oblasti eksperimentalne fizike atoma i molekula, Fizički fakultet, Univerzitet u Beogradu, Beograd, Jugoslavija

Neformalni trening

- 03.2001. - 06. 2001. CEDAM interaktivni kurs Podučavanje na univerzitetu (*Teaching at University*), Australijski nacionalni univerzitet, Kanbera, Australija
11. 1996. - 07. 1997 Poslediplomski staž na Univerzitetu Pjer i Marija Kiri, Pariz VI, Pariz, Francuska

Grantovi, nagrade i priznanja

- SIT (Senior Scholar in Training) grant za prezentaciju i predavanje na mini-simpozijumu u okviru konferencije *Radiation Research Society Conference* na Mauiju, Havaji, Sjedinjene Američke Države
- COST-ECCL grant za kolaborativnu posetu u martu 2009. godine, na Univerzitetu Bielefeld, Nemačka
- Mari Kiri Internacionalni Reintegracioni grant (poziv 2007) (Marie Curie International Reintegration Grant) - 100 000 EUR za period od četiri godine (2008 – 2012)
- Leverhulme Trust Istraživački grant (Researcher Fellowship)
- SIT (Scholar in Training) grant za oralnu prezentaciju rada na konferenciji *Radiation Research Society*, (2006) Filadelfija, Sjedinjene Američke Države
- Istraživački grant za opremu (Research Equipment Fund grant funding – RIEF) sa Prof. Stiven Bakman, Dr Maarten Hoherland i Dr Džulijan Louer) za 2001. godinu (92 000 AUD).
- Stipendija francuske Vlade (bivši CIES) za osmomesetni boravak u Laboratoriji za dinamiku jona i molekula (Laboratory for the Dynamics of Ions and Molecules - DIAM), Univerzitet Pjer i Mari Kiri, Pariz, Francuska (1996-1997).
- Nagrada Instituta za fiziku u Beogradu za najbolji magistarski rad za 1993. godinu.

Članstva u profesionalnim udruženjima

Radiation Research Society of Serbia

Istraživačko iskustvo

Tehnike skenirajuće mikroskopije

Atomska mikroskopija sile, uključujući skeniranje kelvinovom probom – analiza topoloških i elektrostatičkih osobina tankih filmova organskih i neorganskih materijala u ambijentalnim uslovima I u uslovima ultra-visokog vakuuma.

Tehnike pripreme tankih filmova

Priprema i transfer Langmir-Blodžet jednostrukih i višeslojnih molekularnih uzoraka. Termički i hemijski tretman silicijumskih supstrata.

Spektroskopija biomolekula u kondenzovanoj fazi

Fotoelektronska spektroskopija x-zracima (X-ray photoelectron spectroscopy – XPS I NEXAFS) tankih kondenzovanih filmova.

Elektronska spektroskopija gubitka energije (High-Resolution Electron Energy-Loss - HREEL) rasejanja niskoenergijskih elektrona na molekularnim filmovima koji sadrže DNK i njene konstituente.

Analiza jednostrukih i dvostrukih prekida u strukturi DNK izazvanih udarom niskoenergijskih elektrona.

FT-IR spektroskopija tankih filmova.

Elektronska spektroskopija molekula u gasnoj fazi

Merenja apsolutnih elastičnih i neelastičnih efikasnih preseka i ekscitacionih funkcija za elektronsko rasejanje na molekulima (azot, azot monoksid, etilen, tetrafluoroetilen, itd.), kao i merenja negativnih molekularnih jona.

Koincidentna merenja elektrona i proizvoda sudara sa atomima i molekulima primenom metode vremena preleta i sinhrotronskog zračenja (Time-of-Flight)

Elektronska spektroskopija atoma

Merenja apsolutnih elastičnih i neelastičnih efikasnih preseka i ekscitacionih funkcija za elektronsko rasejanje na parama metala (živa, cink, magnezijum) i plemenitih gasova (argon, helijum).

Merenja metastabilnih atoma i negativnih atomskih jona.

Koincidentna merenja rasejanja elektrona na atomima plemenitih gasova (helijum, ksenon).

Pregled iskustva u eksperimentalnim tehnikama i metodama

Sistemi i instalacije ultra visokog vakuuma.

Rad na sinhrotronskim linijama.

Infracrvena spektroskopija.

Atomska mikroskopija sile.

Projektovanje, gradnja implementacija elektronsko-optičkih sistema (pulsirani izvori elektrona, detektori naelektrisanih čestica).

Rad sa masenim spektrometrima.

Proizvodnja tankih filmova kondenzovanih molekula metodama isparavanja, liofilizacije i prenosa sa graničnih površina (vazduh/tečnost).

Manipulacija i prečišćavanje plazmidne DNK.

Korišćenje instrumenata za detekciju naelektrisanih čestica i obradu signala.

Operativnost sa komercijalnim programskim paketima - CASA, OMNIC, EIS, Material Studio, SIMION, Lab View, COBOLD, Origin, Microsoft Office, etc

Pedagoški rad

Ko-mentorstvo diplomskog (Joanne Harrison) i doktorskog studenta (Milica Jelisavčić)

Obuka studenata u laboratorijskom radu.

Predavanja, ispiti i ocenjivanje studenata.

Obuka studenata u pisanju finalnih izveštaja.

Predavanja fizike u srednjoj školi po Kejmbridž kursu.

Dodatno iskustvo i aktivnosti

Organizovanje međunarodnih konferencija (Generalni sekretar za PHOTONICA13 i TABIS2013)

Organizovanje seminara u okviru grupe i Centra.

Recenzija članaka za istaknute međunarodne časopise - *Journal of Physical Chemistry, Physical Chemistry Chemical Physics, Nucleic Acids Research, Applied Surface Science, Journal of Physics D.*

Gost-editor za poseban broj časopisa *Physica Scripta*.

Član grupe eksperata za ocenjivanje REA-FET-OPEN Horizon2020 projekata.

Tečno znanje engleskog i francuskog jezika.

Spisak publikacija, pozivnih predavanja i prezentacija na konferencijama

Publikacije u naučnim časopisima

1. Aleksandar Matković, Ivana Milošević, Marijana Milićević, Tijana Tomašević-Ilić, Jelena Pešić, Milenko Musić, Marko Spasenović, Djordje Jovanović, Borislav Vasić, Christopher Deeks, Radmila Panajotović, Milivoj R. Belić and Radoš Gajić, „Enhanced sheet conductivity of Langmuir–Blodgett assembled graphene thin films by chemical doping“, *2D Mater.* 3 (2016) 015002

2. R. Panajotović, S. Ptasinska, V. Lyamayev, and K. Prince, „Low-energy Electron Damage of DPPC Molecules – A Nexafs Study“, *Rad. Applic.* 2016, 1, 1, 46-50, DOI: 10.21175/Rad. J. 2016.01.09 ISSN 2466-4294

3. M. Lange, J. Matsumoto, A. Setiawan, R. Panajotovic, J. Harrison, J. C. Lower, D. S.

Neman, S. Mondal, and S. J. Buckman, “Angle-resolving time-of-flight electron spectrometer for near- threshold precision measurements of differential cross sections of electron-impact excitation of

- atoms and molecules” - *Rev. Sci. Instr.* **79** (4) (2008) 043105
4. Radmila Panajotovic and Leon Sanche, “From DNA to nucleic bases - the effects of low-energy electron impact”, *J. Phys: Conference Series*, **88** (2007) 012074
 5. J. Lower, R. Panajotovic, S. Bellm, and E. Weigold,
“Invited Article: An improved double-toroidal spectrometer for gas-phase (e, 2e) studies”- *Rev. Sci. Instr.* **78** (2007) 111301
 6. Radmila Panajotovic, Marc Michaud and Léon Sanche,
“Cross sections for low-energy electron scattering from adenine in the condensed phase”- *Phys. Chem. Chem. Phys.* **9** (2007) 138 (“hot article”)
 7. Radmila Panajotovic, Julian Lower and Erich Weigold, A. Prideaux and D. H. Madison
“(e,2e) measurements on xenon: Re-examination of the fine-structure effect” - *Phys. Rev. A* **73** (2006) 052701
 8. Radmila Panajotovic, Frédéric Martin , Pierre Cloutier , Darel Hunting , and Léon Sanche
"Effective Cross Sections for Single Strand Break Production in Plasmid DNA by to 4.7 eV electrons" – *Radiation Research*, **165** (2006) 452-459
 9. D. V. Fursa, I. Bray, R. Panajotovic, D. Ševic, V. Pejcev, D. M. Filipovic, and B. Marinkovic
“Excitations of 1P levels of zinc by electron impact on the ground state” - *Phys. Rev. A*, **72**, 012706 (2005)
 10. R. Panajotovic, M. Jelisavcic, R. Kajita, T. Tanaka, M. Kitajima, H. Cho, H. Tanaka, and S. J. Buckman “Electron scattering from tetrafluoroethylene” - *J. Chemical Physics*, **121** 4559 (2004)
 11. M. Jelisavcic, R. Panajotovic, M. Kitajima, M. Hoshino, H. Tanaka, and S. J. Buckman,
“Electron scattering from perfluorocyclobutane (c-C4F8)” - *J. Chemical Physics*, **121** 5272 (2004)
 10. R. Panajotovic, D. Ševic, V. Pejcev, D. M. Filipovic, and B. Marinkovic
“Small-angle electron scattering from zinc” - *Int. J. Mass. Spectrom.* **233**, 253 (2004)
 12. L. Campbell, M.J. Brunger, Z.Lj. Petrovic, M. Jelisavcic, R. Panajotovic, S.J. Buckman
“Infrared Auroral Emissions Driven by Resonant Electron Impact Excitation of NO molecules” – *Geophysical Research Letters*, **31** L10103 (2004)
 13. Lower, J. Panajotovic, R, and Weigold, E
“Recent progress in quantum-state resolved ionization experiments” – *Physica Scripta* **T110** 166-171 (2004)
 14. Buckman, S J, Panajotovic, R, and Jelisavcic, M
“Low energy electron-molecule cross sections” – *Physica Scripta* **T110** 216-221 (2004)
 15. J.P. Sullivan, P.B. Burrow, D.S. Newman, K. Bartschat, J.A. Michejda, R. Panajotovic, M. Moghbelalhossein, R.P. McEachran and S.J. Buckman
“An Experimental and Theoretical Study of Transient Negative Ions in Mg, Zn, Cd, and Hg” – *New Journal of Physics*, **5** 159 (2003)
 16. R. Panajotovic, M. Kitajima, H. Tanaka, M. Jelisavcic, J. Lower and S. Buckman
“Elastic Scattering of Slow Electrons from Ethylene” - *Radiation Physics and Chemistry*, **68** 233 (2003)
 17. M. Jelisavcic, R. Panajotovic, and S.J. Buckman
“Absolute collision cross sections for low energy electron scattering from NO: The role of resonances in elastic scattering and vibrational excitation” - *Phys. Rev. Lett.*, **90** 203201 (2003)
 18. R. Panajotovic, M. Kitajima, H. Tanaka, M. Jelisavcic, J. Lower, L. Campbell, M.J. Brunger and S. Buckman “Electron collisions with Ethylene” - *J. Phys. B: At. Mol. and Opt. Phys. B*, **36** (2003) 1615
 19. B. Marinkovic, R. Panajotovic, Z.D. Pesic, D.M. Filipovic, Z. Felfli and A.Z. Msezane
“Normalization of the measured relative electron differential cross sections for 21₊ and 1₋ states of N2O” - *J. Phys. B: At. Mol. Opt. Phys.* **32** (1999) 1949
 20. F. Penent, R.I. Hall, R. Panajotovic, J.H.D. Eland, G. Chaplier and P. Lablanquie
"New Method for the Study of Dissociation Dynamics of State-Selected Doubly Charged Ions: Application to CO₂⁺" - *Phys. Rev. Lett.* **81** (1998) No17, 3619
 21. B. Marinkovic, Z.D. Pesic, R. Panajotovic and D.M. Filipovic, Z. Felfli and A.Z. Msezane
"Electron Excitation of the 1₋ and 21₊ States of N2O" - *Balkan Physics Letters* **6** (1998) 101
 22. R. Panajotovic, D.M. Filipovic, B. Marinkovic, V. Pejcev, M. Kurepa and L. Vuskovic,
"Critical minima in elastic electron scattering by argon" - *J. Phys. B: At. Mol. Opt. Phys.* **30** (1997) 5877

23. R.Panajotovic, V.Pejcev, M.Konstantinovic, D.Filipovic, V.Bocvarski and B.Marinkovic
"Elastic and inelastic electron scattering by mercury" - *J.Phys.B:At.Mol.Opt.Phys.* **26** (1993) 1005-24

Predavanja po pozivu i oralne prezentacije

- “*Effects of water adsorption on thin films of graphene and tungsten disulfide as active components for biochemical sensors*”, 10th Photonics workshop, Kopaonik, Serbia, 28.02.-02.03.2017.
- „*Electron-beam damage from SEM to lipid-(graphene, MoS₂, WS₂) heterostructures*”, Fourth International Conference on Radiation and Applications in Various Fields of Research, May 23-26, 2016, Niš, Serbia
- “*Molecular and Atomic Nanoclusters on self-assembled supported lipid multilayer structures*”, Characterisation of Nanomaterials and Nanomedicine, Nanobiotechnology enlargement workshop, November 23-25, 2015, Ispra, Italy
- “*Radiation effects of slow electrons on biomolecules – where the experiment and theory meet*”, Theoretical Approaches to BioInformation Systems (TABIS2013), September 17-22, Belgrade, Serbia
- „*FT-IR merjenja efekata dejstva niskoenergijskog mlaza na kompleks fosfolipida i arginina*“, Šesta radionica Fotonike (2013), Kopaonik, 4-8. mart 2013
- „*Electrostatic landscape of arginine on a multilayer DPPC-covered solid substrate*“, 15th International Scanning Probe Microscopy Conference, ISPM DIJON 2013, 30th June – 3rd July, Dijon, France
- “*XPS Study on Effects of Electron-beam Irradiation of Thin Condensed DPPC Films*”, SFKM 2011, Belgrade, Serbia
- “*Electrons breaking bonds in DPPC*” – AMIG, 15-16 April 2010, The Open University, Milton Keynes, UK
- “*Electron-beam irradiation of supported DPPC monolayers – an XPS study*” – APS March Meeting, 15- 19 March 2010, Portland, Oregon, USA
- “*XPS study on effects of electron-beam irradiation of supported thin phospholipid films*” – ECASIA’09, 18-23 November 2009, Antalya, Turkey
- “*Effects of low-energy electrons on DNA constituents: effective cross sections for condensed thymidine*”, 40th Annual Meeting of the APS Division of Atomic, Molecular and Optical Physics (DAMOP), May 19– 23, 2009; Charlottesville, Virginia, USA
- “*XPS study on effects of electron-beam irradiation of supported thin phospholipids films*”, POSMOL2009, XVI International symposium on electron-molecule collisions and swarms, 29th July – 1st August 2009, Toronto, Canada
- “*Low-energy electron scattering from monomolecular films of biomolecules - past results and future experiments*”, October 2008, Laboratory for supramolecular systems, Faculty of Physics, University of Bielefeld, Bielefeld, Germany
- “*Effective cross-sections for low-energy electron scattering from monomolecular films of condensed thymidine*” Electron-Controlled Chemical Lithography (ECCL) 2008, Lisbon, Portugal, 12-16th March 2008
- “*Effects of Low-Energy Electron Impact on Thin Films of Condensed Adenine and Thymidine*” CECAM Workshop on Modelling Radiation Damage, Lyon, France, 3-6 December 2007.
- “*From DNA to nucleic bases – the effects of low-energy electron impact*” XXV ICPEAC (2007), Freiburg, Germany, 24-31 July 2007
- “*Vibrational and electronic excitation of condensed adenine by low-energy electrons*” Radiation Research Society 2006 Annual Meeting Mini-Symposium, Philadelphia, USA, 4-8 November 2006.

- “Cross Sections for Elastic and Inelastic Electron Scattering from C_2H_4 , C_2F_4 and C_4F_8 ”, Symposium on Physics of Ionised Gases SPIG2002, Soko Banja, Yugoslavia, August 26-30, 2002, published as :*The Physics of Ionized Gases: Invited Lectures, Topical Invited Lectures and Progress Reports*, p.75

Prezentacije na konferencijama – recenzirane označene *

- *1. T. Tomašević-Ilić, . Matković, J. Vujin, . Panajotović, M. Spasenović, R. Gajić, “p-type field-effect transistors based on liquid phase exfoliated MoS_2 ”, Graphene 2017, March 28-31, Barcelona, Spain, Abstract Book, http://www.grapheneconf.com/Files/Graphene2017_AbstractsBook.pdf
- *2. Jasna Vujin, Đorđe Jovanovic and Radmila Panajotovic, „PHYSICO-CHEMICAL CHARACTERIZATION OF LIPID-2D-MATERIALS SELF-ASSEMBLY FOR BIOSENSORS“, Book of Abstracts, Fourth International Conference on Radiation and Applications in Various Fields of Research, May 23-26, 2016, Niš, Serbia, Ed. G. Ristić, University of Niš, Faculty of Electronic Engineering, Niš, Serbia, p58, ISBN: 978-86-6125-160-3
- *3. T. Szabó, T. Tomashevich, R. Panajotović, Gy. Váró, G. Garab, K. Hajdu, K. Hernadi, L. Nagy, „Carbon-based biohybrides for optoelectronics“, Book of Abstracts, Regional Biophysics Conference (RBC2016), 25-28 August 2016, Trieste (Italy), Ed. Università di Trieste, Italy, ISBN 978-88-8303-757-3 (print), ISBN 978-88-8303-758-0 (online), p.69
- *4. Radmila Panajotovic and Jasna Vujin, „MODIFICATIONS OF LIPID/2D-MATERIAL HETEROSTRUCTURES BY SEM“ SPIG 2016, CONTRIBUTED PAPERS & ABSTRACTS OF INVITED LECTURES, TOPICAL INVITED LECTURES, PROGRESS REPORTS AND WORKSHOP LECTURES, 29. August -2. September 2016, Belgrade, Serbia, Ed. Dragana Marić, Aleksandar Milosavljević, Bratislav Obradović and Goran Poparić, University of Belgrade, Faculty of Physics, Belgrade, Serbia, p.
- *5. Radmila Panajotović, “Radiation effects of slow electrons on biomolecules – where the experiment and theory meet”, Proceedings of 2nd International Conference TABIS2013, Ed. Institute of Physics, Belgrade, Serbia, ISBN 978-86-82441-40-3, p.153-165
6. Radmila Panajotovic and Nigel Mason, “Electron irradiation of lipid-amino acid complex”, Electron Controlled Chemical Lithography (ECCL) 2012 Meeting, COST Action CM0601, 18-22 May 2012, Stykkisholmur, Iceland
- *7. R.Panajotovic, M. Schnietz, A. Turchanin, N. Mason and A. Goelzhauser „Effects of electron-beam irradiation on phospholipid/amino acid complexes“, CMD-24, 24th General Conference of the Condensed Matter Division of the European Physical Society, 3-7 September 2012, Edinburgh International Conference Centre, Edinburgh, Scotland, UK, Book of Abstracts, p.445
8. S. Jheeta, . Fulvio, .E. alumbo, A. omaracka, R. Panajotovc, B. Sivaraman, S. Ptasinska, E. Burean, G. Strazzulla, A. LaFosse, . J. Mason, “Co-conspirators: Space, molecules and life”, 39th COSPAR Scientific Assembly 2012, 14.-22. July 2012, Misore, India, Book of Abstracts, p. 826
- *9. R. Panajotovic, M. Schnietz, A. Turchanin, N. Mason, N. Mason, and A. Gözlhäuser, “*Degradation of phospholipid molecules by low-energy electrons*”, Radiation Research Society Conference, 25-29 September 2010, Maui, USA, Book of Abstracts, p.99
- *10. Panajotovic, R., Schnietz M, Turchanin A, Mason N and Gözlhäuser A, “*XPS Study on Effects of Electron-Beam Irradiation of Thin Condensed DPPC Films*”, ECAMP X, 4-10 June 2010, Salamanca, Spain
- *11. R. Panajotovic, M. Schnietz, A. Turchanin, N. Mason, and A. Gözlhäuser, “*Low-energy electrons breaking molecular bonds in phospholipids*”, IBBI10, 12-17 June, Berlin, Germany, Book of Abstracts, p.106
- *12. R. Panajotovic, M. Schnietz, A. Turchanin, N. Mason, and A. Gözlhäuser, “*XPS study of electron-beam irradiated thin layers of phospholipids*”, ESF-EMBO Symposium on Biological Surfaces and Interfaces, 29th June – 2nd July 2009, Sant Feliu de Guixol, Spain
13. Radmila Panajotovic, Marc Michaud, Leon Sanche and Nigel Mason, “Effects of low-energy electrons on DNA constituents: Effective cross sections for condensed thymidine”, *Physics meets Biology*, St. Catherine’s College, Oxford, 13-16 July 2008

14. Radmila Panajotovic, Marc Michaud and Leon Sanche, “Low-energy electron scattering from condensed thymidine”, LEEMI-EIPAM’08, ESF conference on Electron-Induced Processes at Molecular Level/ Low-energy Electron Molecule Interaction, Roscoff, France, 7-11 May 2008
15. Radmila Panajotovic, Marc Michaud and Leon Sanche, “Vibrational excitation of condensed thymidine films by low-energy electron impact”, *Proceedings of the 13th International Congress of Radiation Research*, 8-12 July 2007, San Francisco, USA
16. Radmila Panajotovic, Marc Michaud, and Léon Sanche, “Resonances in the integral cross sections for scattering of 1.5 – 12 eV electrons from condensed adenine”, *Book of Abstracts*, EIPAM Meeting 2006, Valletta, Malta, 16-20 September 2006, Ed. N. Mason
17. Radmila Panajotovic, Marc Michaud, and Léon Sanche, “Vibrational excitation of condensed thymidine by low-energy electrons”, *Book of Abstracts*, EIPAM Meeting 2006, Valletta, 16-20 September 2006, Ed. N. Mason
- *18. F. Martin, P. Cloutier, R. Panajotović, D. Hunting, and L. Sanche, “Total cross section for inducing single strand breaks in plasmid DNA by subexcitation-energy electrons”, *Book of Abstracts XXIV International Conference on Photonic, Electronic and Atomic Collisions (ICPEAC)*, 19-26. August 2005, Rosario, Argentina, eds: F. D. Colavecchia, P. D. Fainstein, J. Fiol, M. A. P. Lima, J. E. Miraglia, E. C. Montenegro, and R. D. Rivarola; p. 329
- *19. Lower, J; Bellm, S; Panajotovic, R; Weigold, E; Prideaux, A; Madison, DH; Stegen, Z; Whelan, CT; Lohmann, B, “Ionization of atoms with spin-polarized electrons” - *AIP Conference Proceedings* **811** (2006) p.60-65, International Symposium on (e,2e), Double Photoionisation, and related topics/13th International Symposium on Polarization and Correlation in Electronic and Atomic Collisions Buenos Aires, Argentina, July 28-30, 2005 CNICT Agcy Nacl Promoc Cient & Tecnol Omst Astronomia & Fis Espacio Univ Buenos Aires Centro Latino Amer Fis Univ Paris Sud XI Griffith Univ
- *20. R. Panajotović, M. Michaud, and L. Sanche, “Low-energy electron scattering from condensed phase adenine”, *Book of Abstract*, XXIV International Conference on Photonic, Electronic and Atomic Collisions (ICPEAC), 19-26. August 2005, Rosario, Argentina, eds: F. D. Colavecchia, P. D. Fainstein, J. Fiol, M. A. P. Lima, J. E. Miraglia, E. C. Montenegro, and R. D. Rivarola; p. 322
- *21. R. Panajotović, M. Michaud, and L. Sanche, “Inelastic scattering of low-energy electrons (1.5 – 12) eV from condensed phase adenine”, *Scientific Program and Book of Abstracts*, 14th International Symposium on Electron-Molecule Collisions and Swarms, 27-30. July 2005, Campinas, Brazil, eds: Sergio d’A. Sanchez, Romarly F. da Costa, Marco A. P. Lima; p. 86
- *22. Susan Bellm, Julian Lower, Radmila Panajotovic, Erich Weigold, Andy Prideaux, and Don Madison, “Spin-resolved (e, 2e) ionization experiments on atoms”, *Book of Abstracts*, XXIV International Conference on Photonic, Electronic and Atomic Collisions (ICPEAC), 19-26. August 2005, Rosario, Argentina, eds: F. D. Colavecchia, P. D. Fainstein, J. Fiol, M. A. P. Lima, J. E. Miraglia, E. C. Montenegro, and R. D. Rivarola; p. 178
- *23. Dmitry V. Fursa, Igor Bray, Radmila Panajotović, D. Šević, V. Pejčev, D. M. Filipović, B. P. Marinković, “Electron scattering from the ground state of zinc”, *Book of Abstracts*, XXIV International Conference on Photonic, Electronic and Atomic Collisions (ICPEAC), 19-26. August 2005, Rosario, Argentina, eds: p. 216
- *24. Radmila Panajotovic, Milica Jelisavcic, Velibor Novakovic, Grzegorz Karwasz, Zoran Lj Petrovic and Stephen Buckman, “Low-energy electron collisions with NO: A cross section set derived from crossed beam studies and swarm experiments”, *Program and Abstracts of the International Symposium on Electron-Molecule Collisions and Swarms (EMS-03)*, Charles University, Prague (Pruhonice), Czech Republic, eds: J. Horáček and P. Cársky; p87
- *25. R. Kajita, M. Jelisavcic, M. Kitajima, R. Panajotovic, S. Eden, H. Tanaka, H. Cho and S. J. Buckman, “Resonance effects in electron scattering from C₂F₄” *Program and Abstracts of the International Symposium on Electron-Molecule Collisions and Swarms (EMS-03)*, Charles University, Prague (Pruhonice), Czech Republic, eds: J. Horáček and P. Cársky; p89
- *26. M. Jelisavcic, R. Kajita, T. Tanaka, R. Panajotovic, M. Kitajima, H. Tanaka, H. Cho and S. J. Buckman, “Elastic electron scattering from C₂F₄ and c-C₄F₈”, *Program and Abstracts of the International Symposium on Electron-Molecule Collisions and Swarms (EMS-03)*, Charles University, Prague (Pruhonice), Czech Republic, eds: J. Horáček and P. Cársky; p91

- *27. R. Panajotovic, M. Kitajima, H. Tanaka, M. Jelisavcic, J. Lower, L. Campbell, M. J. Brunger, S. J. Buckman, "Absolute differential cross sections for electron – C₂H₄ scattering", "*on-line*" *Book of Abstracts and the Conference Program* of the XXIII International Conference on Photon, Electron and Atom Collisions – ICPEAC (web site: <http://atomlx04.physto.se/~icpeac/php/abstracts.php>) eds: J. Anton, H. Cederquist, M. Larson, E. Lindroth, S. Mannervik, H. Schmidt and R. Schuch
- *28. M. Jelisavcic, R. Panajotovic, S. J. Buckman, "Low-energy electron scattering from nitric oxide", "*on-line*" *Book of Abstracts and the Conference Program* of the International Conference on Photon, Electron and Atom Collisions – ICPEAC (web site: <http://atomlx04.physto.se/~icpeac/php/abstracts.php>) eds.: J. Anton, H. Cederquist, M. Larson, E. Lindroth, S. Mannervik, H. Schmidt and R. Schuch
- *29. R. Panajotovic, M. Kitajima, H. Tanaka, M. Jelisavcic, J. Lower, L. Campbell, M. J. Brunger, S. J. Buckman, "Absolute differential cross sections for electron scattering from C₂F₄ and C₄F₈", "*on-line*" *Book of Abstracts and the Conference Program* of the International Conference on Photon, Electron and Atom Collisions – ICPEAC (web site: <http://atomlx04.physto.se/~icpeac/php/abstracts.php>) eds.: J. Anton, H. Cederquist, M. Larson, E. Lindroth, S. Mannervik, H. Schmidt and R. Schuch
- *30. J. Lower, R. Panajotovic, E. Weigold, "(e,2e) study of helium: simultaneous ionisation/excitation" "*on-line*" *Book of Abstracts and the Conference Program* of the International Conference on Photon, Electron and Atom Collisions – ICPEAC (web site: <http://atomlx04.physto.se/~icpeac/php/abstracts.php>) eds.: J. Anton, H. Cederquist, M. Larson, E. Lindroth, S. Mannervik, H. Schmidt and R. Schuch
31. R. Panajotovic, M. Kitajima, J.C.A. Lower, H. Tanaka, and S. J. Buckman, "Electron collisions with C₂H₄, C₂F₄, and C₄F₈", *Book of Contributed Papers*, CEPAS2002, Poland, September 2-6 2002; Gdansk University of Technology, Gdansk, eds. E. Ptasińska-Dęga and Cz. Szymkowski, p. 99
32. Julian Lower, Joanne Harrison, Radmila Panajotovic and Stephen Buckman, "Low Energy Electron Scattering Using Position – Sensitive, ToF Techniques", *Book of Abstracts*, 12th Gaseous Electronics Meeting, 2-6 February 2002, Murrumarang Resort, Bateman's Bay, NSW, Australia, eds. Roderick Boswell and Stephen Buckman
33. Julian Lower, Radmila Panajotovic and Erich Weigold, "(e, 2e) Ionization Experiments – Multiple Improvements", *Book of Abstracts*, 12th Gaseous Electronics Meeting, 2-6 February 2002, Murrumarang Resort, Bateman's Bay, NSW, Australia, eds. Roderick Boswell and Stephen Buckman
- *34. L J Uhlmann, R J Gulley, K Trantham, R Panajotovic and S J Buckman, "*Absolute electron scattering cross section measurements at backward angles*", *Abstracts of contributed papers*, XXII International Conference on Photonic, Electronic and Atomic Collisions 2001, Santa Fe, New Mexico, USA S Datz, M E Bannister, H F Krause, L H Saddiq, D Schultz and C R Vane
- *35. Panajotovic, R, Sevic, D, Pejcev, V, Marinkovic, B, Predojevic, B, and Filipovic, D.M. "Generalized Oscillator Strengths for e-Zn Scattering at small angles", *Abstracts of contributed papers*, XXII International Conference on Photonic, Electronic and Atomic Collisions 2001, Santa Fe, New Mexico, USA S Datz, M E Bannister, H F Krause, L H Saddiq, D Schultz and C R Vane
- *36. Radmila Panajotovic, James P. Sullivan and Stephen Buckman, "Experimental investigation of temporary negative ions in electron scattering on magnesium atom", *Book of Abstracts and Contributed Papers*, AMPQC, 10.-15. December 2000, Adelaide, SA, Australia; eds. Igor Bray, University of Adelaide;
- *37. B. Predojevic, D. Sevic, R. Panajotovic, V. Pejcev, D.M. Filipovic and B. Marinkovic, "Differential Cross Section Minima in Electron Scattering by Zinc Atoms", *Book of Abstracts*, Contributed Papers, SPIG 2000, 4-8 September, 2000, Zlatibor, Yugoslavia; eds. Z.Lj. Petrovic, M.M. Kuraica, N. Bibic and G. Malovic, Institute of Physics, Faculty of Physics, and Institute of Nuclear Sciences "Vinca", Belgrade, Yugoslavia; p.35
38. R. Panajotovic, V. Pejcev and B. Marinkovic, "Differential cross sections for electron scattering from zinc", *Book of Abstracts*, 11th Gaseous Electronics Meeting, Armidale, NSW, Australia, January, 31- February, 2 2000; University of New England, G. Woolsey and M. Fewell eds.; p. 31
39. Z.D.Pesic, B.Marinkovic, M.Minic, D.Pantelic, I.Necajev, B.Panic, R. Panajotovic and D.M.Filipovic - "Using diode lasers for atomic collision physics" - XVIII SPIG, Kotor, Yugoslavia (1996), *Contributed Papers*, Eds. B.Vujicic and S.Djurovic, (Faculty of Sciences, Institute of Physics, Novi Sad) p.51

40. R.Panajotovic, V.Pejcev, B.Marinkovic and D.Filipovic - "Resonances in elastic e^-/Ar scattering above ionization limit" - XVIII SPIG, Kotor, Yugoslavia (1996), *Contributed Papers*, Eds. B.Vujicic and S. Djurovic, (Faculty of Sciences, Institute of Physics, Novi Sad) p.30
41. R.Panajotovic, V.Pejcev and B.Marinkovic - "Electron scattering by zinc atom" - *Proc. 4th Int. Conf. on Fundamental and Applied Aspects of Physical Chemistry and Physical Chemistry '98*, Belgrade, Yugoslavia, *contributed Papers*, Eds. S.Ribnikar and S.Antic, (The Society of Physical Chemists of Serbia:Belgrade) (1998) p.104
- *42. R.Panajotovic, V.Pejcev and B.Marinkovic - "Electron interactions with zinc atom" - XIX SPIG, Zlatibor, Yugoslavia 1998, *Contributed Papers*, Eds. N.Konjevic, M.Cuk, I.R.Videnovic, (University of Belgrade, Faculty of Physics:Belgrade) (1998), p.69
- *43. Panajotovic R, Pejcev V, Pesic Z.D. and Marinkovic B. - "Electron - Zn atom crossed beams experiment" - The Sixth European Conference on Atomic and Molecular Physics, Siena, Italy (1998), *Contributed Papers*, Eds. Biancalana, P.Bicchi, E.Mariotti, University of Siena, p. 4.-114
44. B.Marinkovic, R.Panajotovic, Z.D.Pesic and D.M.Filipovic - "Electron scattering by atoms and stepwise electron laser excitation" - Proc.Int.Conf. "The Centenary of the Electron", Uzhgorod, Ukraine (1997)
- *45. Z.D.Pesic, R.Panajotovic, B.Marinkovic, V.Pejcev and D.M.Filipovic - "Position of DCS minima in elastic electron scattering by mercury" - XX ICPEAC, Vienna, Austria (1997), *Abstracts of Contributed Papers*, eds. F.Aumayar, G.Betz and H.P.Winter, p.TH007
- *46. R.Panajotovic, D.Filipovic, B.Marinkovic, V.Pejcev, M.Kurepa and L.Vuskovic - "Critical minima in elastic electron scattering by argon" - XX ICPEAC, Vienna, Austria, (1997), *Abstracts of Contributed Papers*, eds. F.Aumayar, G.Betz and H.P.Winter, p.TH006
- *47. J.Matijevic, R.Panajotovic, B.Marinkovic, V.Pejcev and D.M.Filipovic - "Absorption effects in elastic electron scattering by argon atom"- XVIII SPIG, Kotor, Yugoslavia (1996), *Contributed Papers*, Eds. B.Vujicic and S.Djurovic, (Faculty of Sciences, Institute of Physics, Novi Sad) p.40
- *48. J.Predojevic, R.Panajotovic, V.Pejcev, B.Marinkovic and D.M.Filipovic - "Test of randomness of binary electron-atom collision events" - XVIII SPIG, Kotor, Yugoslavia (1996), *Contributed Papers*, Eds. B.Vujicic and S. Djurovic, (Faculty of Sciences, Institute of Physics, Novi Sad) p.37
- *49. D.Filipovic, V.Pejcev, R.Panajotovic and B.Marinkovic - "The critical positions of differential cross section minima in elastic electron-argon scattering" 5th EPS Conference on Atomic and Molecular Physics, Edinburgh, UK (1995), *Book of Contributed Papers*, Volume 19A , Part II, p.103

Dr Radmila Panajotović, Viši naučni saradnik

Dr Radmila Panajotović je doktorirala (1999.) na Fizičkom fakultetu Prirodno-matematičkog fakulteta Univerziteta u Beogradu godine, u oblasti eksperimentalne atomske i molekularne fizike, na temi elektronske spektroskopije para metala (eksperimentalna merenja urađena u Institutu za fiziku, Beograd). Posle završenih doktorskih studija provela je više od deset godina na post-doktorskom usavršavanju u inostranstvu, u renomiranim laboratorijama na Australijskom Nacionalnom Univerzitetu (Kanbera, Australija), Medicinskom fakultetu Univerziteta u Šerbruku (Kvebek, Kanada) i Otvorenom univerzitetu (Milton Kijns, Velika Britanija), gde je radila u oblasti elektronske, fotoelektronske i infracrvene spektroskopije molekula u gasnoj i kondenzovanoj fazi. Od 2004. godine glavna tema njenih istraživanja su interakcije elektrona sa biomolekulima, posebno sa molekulom DNK i izolovanim nukleinskim bazama u obliku tankih filmova, sa ciljem otkrivanja vrste i veličine oštećenja koje sekundarne naelektrisane čestice ("δ-electroni"), kreirane duž traga jonizujućeg zračenja, proizvode na ćelijskom genetskom materijalu. Ovo istraživanje je imalo za cilj otkrivanje mogućih procesa koji dovode do kidanja lanaca DNK zdravih ćelija, kao i poboljšanje efikasnosti radioterapije kancerognog tkiva. U martu 2008. godine, Dr Panajotović je, kao dobitnica Mari Kiri FP7 granta (*Research Fellowship* – za reintegraciju kvalitetnih evropskih naučnika koji borave van Evrope), započela rad na svom originalnom projektu istraživanja dejstva elektrona niskih i srednjih energija na samo-organizujuće molekule fosfolipida u obliku jedno- i višeslojnih tankih filmova na provodnim, poluprovodnim i izolatorskim supstratima. Od 2012. godine Dr Panajotović ponovo radi u Institutu za fiziku, Beograd, a u sklopu projekta OI171005 ("Fizika uređenih nanostrukture i novih materijala u nanofotonici") na temi ispitivanja morfoloških i električnih osobina heterostruktura sastavljenih od samoorganizujućih biomolekula (fosfolipidi, amino kiseline) i tankih filmova 2D-materijala (grafen, MoS₂, WS₂). Glavni cilj ovog istraživanja je dizajn i karakterizacija o-FET (organski-*Field-Effect-Transistors*) i TF-FET (Tanki-film - *Field-Effect-Transistors*) biohemijskih senzora kojima bi bilo moguće detektovati metabolički važne molecule u gasnoj i tečnoj fazi. Osim ove teme, istraživačke teme Dr Panajotović uključuju i samorganizujuće osobine biomolekula važnih za funcionisanje biomembrane, adheziju nano-čestica na 2D-materijalima i njihov transport kroz biomolekularne structure, adsorpciju molekula i njihove osobine vezane za alternativne izvore energije, kao i interakcije naelektrisanih čestica sa materijalima.

- Spektroskopija i atomska mikroskopija efekata sudara elektrona sa fosfolipidnim filmovima

Eksperiment se sastojao u merenju efekata dejstva usmerenog monoenergijskog mlaza elektrona energije od 5 do 100 eV na tanke filmove fosfolipida i njihovih kompleksa sa aminokiselinama, primenom FT-R spektroskopije. Pokazano je da se oštećenja fosfolipidnih filmova izazvana elektronima ne javljaju u slučaju prisustva amino kiselina – glicina i arginina. Vibracioni FT-IR spektri su pokazali da ovo zaštitno dejstvo nije rezultat hemijskih kompleksa amino kiselina sa lipidima, već klasterizacije amino kiselina na njihovoj površini koja dovdi do efekta "negativnog" naelektrisanja površine i nemogućnosti prodiranja elektronkog mlaza u oblast fosfolipida.

- Ispitivanje dipolnih interakcija tankih biomolekulskih filmova

Pomoću Atomske spektroskopije sile i Kelvinove probe, posmatrane su i merene promene elektrostatičkog potencijala fosfolipidnih molekula i amino-kiseline arginina deponovanih na dielektričnom i provodnom supstratu i uočeno je da se supra-molekularna struktura lipida

odslikava na oblik, veličinu i naelektrisanje klastera arginina. Zaključak ovog istraživanja je da se, suprotno teorijskim proračunima i delu ranijih eksperimenata na dvostrukim slojevima, u ovim strukturama ne javlja, ni prestrukturiranje, ni prodor molekula vode, a ni hidriranih klastera arginina, u dublje slojeve lipidnih filmova. Takođe, (XPS) fotoelektronski spektri fosfolipida su potvrdili da je prodor molekula vode u fosfolipidni film nedovoljan za transport argininskih klastera.

- Merenje veličine i oblika individualnih nano-čestica silicijum dioksida u morskoj vodi
U okviru COST akcije TD1002 (AFM4NanoBioMed) izvršena su merenja standardizacije postupaka merenja individualnih čestica silicijum dioksida i njihovih klastera suspendovanih u ultra-čistoj vodi i u uzorku morske vode iz severnog Jadrana. Zaključak ovih merenja je da potencijalni toksikološki efekti prisustva ovih nano-čestica u morskoj vodi zavise od sezone i količine organske materije u moru, tj. da ona direktno utiče na veličinu i oblik klastera. U pogledu standardizacije merenja, napravljena je baza mernih rezultata iz pet evropskih laboratorija (Ruđer Bošković, Hrvatska; CEA Marcule, Francuska; INSERM, Francuska; Institut za fiziku, Beograd, Srbija; LGM-CIMaINa, Italija, Institut Gabrijel Lipman, Luksemburg).

- “XPS”- Fotoelektronska spektroskopija tankih filmova 2D-materijala

U saradnji sa kompanijom Thermo Fischer Scientific (UK) i Univezitetom Notre Dame (USA), urađena su merenja na grafenskim filmovima dopiranim azotnom kiselinom, kao i ostalim 2D-materijalima, WS_2 , MgB_2 i h-BN. Merenja na azotom dopiranom grafenu (deponovanom iz tečne eksfolijacije na PET supstratu), na sobnoj temperaturi, prisustvo hemijskih veza azota i kiseonika u površinskim slojevima grafena tretiranog pomoću HNO_3 . Hemijska modifikacija grafena azotom se najbolje manifestovala kroz pomak vezivne energije u hemijskoj vezi ugljenika i kiseonika. Ispostavilo se da je u dopiranom grafenu kiseonik smešten u dubljim slojevima filma, najverovatnije između “flekica” grafena. XPS spektri su, tako, pokazali da azot nije vezan u samu strukturu grafena jer bi to značilo n-dopiranje, što nije slučaj. Zaključak je da, najverovatnije, povećanje provodnosti azotom dopiranog grafena potiče od C=O-, C(O)OH- i NO veza.

Pored ovog, merenja na tankim filmovima 2D-materijala su pokazala da je grejanje tankih filmova (iz tečne eksfolijacije) od suštinskog značaja za njihove električne performanse i da je prisustvo vode u strukturi površine značajno u smislu degradacije granularne strukture i provodnosti ovih filmova.

Dr Panajotović je ekspert u širokom spektru eksperimentalnih tehnika i instrumenata, kao što su tehnika ultra-visokog vakuuma (UHV), elektronska optika, depozicija tankih filmova, tehnika Langmir-Blodžet za prenošenje tankih filmova na čvrste podloge, diodnih lasera, izora i detektora naelektrisanih čestica i fotona, korišćenja Atomskog mikroskopa sile, Infra-crvene spektrometrije, itd. Dr Panajotović je autor 23 rada u istaknutim međunarodnim časopisima koji su citirani više od 400 puta (h-index=13, Google scholar), velikog broja konferencijskih kontribucija i brojnih predavanja. Tokom svog post-doktorskog usavršavanja u inostranstvu bila je ko-mentor u izradi diplomskog i doktorskog rada, a momentalno je ko-mentor doktorantu Jasni Vujin. Takođe je bila predsedavajući na sekciji Radiation Physics na konferenciji RAD2015, obavljala funkciju Generalnog sekretara dveju međunarodnih, predstavljala Srbiju u menadžment komitetu COST TD1002, vodi saradnju sa Univerzitetom u Segedinu i Biofizičkim institutom u Segedinu, koji je deo Mađarske Akademije nauka i Radijacionom laboratorijom Univerziteta Notr Dam, u SAD. Aktivna je i kao recenzent u istaknutim međunarodnim časopisima i za projekte Horizont 2020.



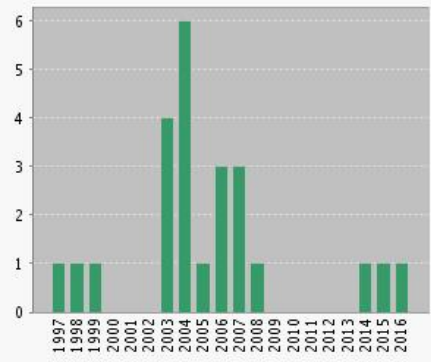
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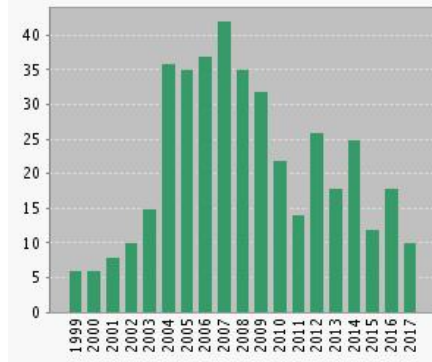
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<input type="checkbox"/> 3. New method for the study of dissociation dynamics of state-selected doubly charged ions: Application to CO2+ By: Penent, F; Hall, RI; Panajotovic, R; et al. PHYSICAL REVIEW LETTERS Volume: 81 Issue: 17 Pages: 3619-3622 Published: OCT 26 1998	1	1	0	1	1	48	2.40
<input type="checkbox"/> 4. Electron collisions with ethylene By: Panajotovic, R; Kitajima, M; Tanaka, H; et al. JOURNAL OF PHYSICS B-ATOMIC MOLECULAR AND OPTICAL PHYSICS Volume: 36 Issue: 8 Pages: 1615-1626 Article Number: PII S0953-4075(03)59181-7 Published: APR 28 2003	2	4	3	2	1	40	2.67
<input type="checkbox"/> 5. Absolute collision cross sections for low energy electron scattering from NO: The role of resonances in elastic scattering and vibrational excitation By: Jelisavcic, M; Panajotovic, R; Buckman, SJ PHYSICAL REVIEW LETTERS Volume: 90 Issue: 20 Article Number: 203201 Published: MAY 23 2003	3	0	0	3	1	30	2.00
<input type="checkbox"/> 6. Cross sections for low-energy electron scattering from	1	1	2	2	1	17	1.55

adenine in the condensed phase

By: Panajotovic, Radmila; Michaud, Marc; Sanche, Leon
PHYSICAL CHEMISTRY CHEMICAL PHYSICS Volume: 9 Issue: 1
Pages: 138-148 Published: JAN 7 2007

- 7. **Infrared auroral emissions driven by resonant electron impact excitation of NO molecules**
By: Campbell, L; Brunger, MJ; Petrovic, ZL; et al. 1 1 1 3 1 17 1.21
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Number: L10103 Published: MAY 25 2004

- 8. **An experimental and theoretical study of transient negative ions in Mg, Zn, Cd and Hg**
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- 9. **Invited Article: An improved double-toroidal spectrometer for gas phase (e,2e) studies**
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Number: 111301 Published: NOV 2007

- 10. **Normalization of the measured relative electron differential cross sections for 2 (1)Sigma(+) and (II)-I-1 states of N2O**
By: Marinkovic, B; Panajotovic, R; Pesic, ZD; et al. 0 0 0 0 0 16 0.84
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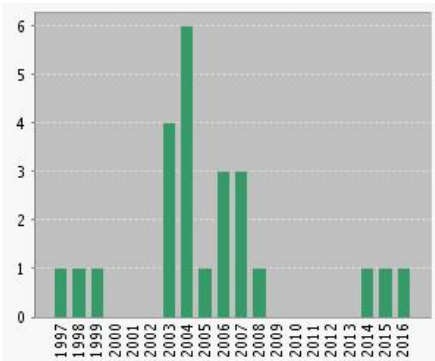
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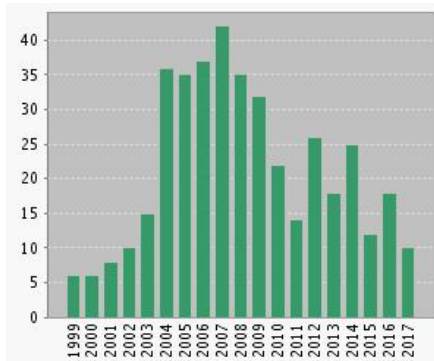
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<input type="checkbox"/> 12. The S-1-P-1 electron excitations of Zn at small scattering angles By: Panajotovic, R; Sevic, D; Pejcev, V; et al. INTERNATIONAL JOURNAL OF MASS SPECTROMETRY Volume: 233 Issue: 1-3 Pages: 253-257 Published: APR 15 2004	0	2	0	0	0	14	1.00
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<input type="checkbox"/> 14. (e,2e) measurements on xenon: Reexamination of the fine-structure effect By: Panajotovic, R; Lower, J; Weigold, E; et al. PHYSICAL REVIEW A Volume: 73 Issue: 5 Article Number: 052701 Published: MAY 2006	1	0	0	0	0	11	0.92
<input type="checkbox"/> 15. Excitations of P-1 levels of zinc by electron impact on the ground state By: Fursa, DV; Bray, I; Panajotovic, R; et al. PHYSICAL REVIEW A Volume: 72 Issue: 1 Article Number: 012706 Published: JUL 2005	0	2	0	0	0	10	0.77
<input type="checkbox"/> 16. Electron scattering from perfluorocyclobutane (c-C4F8) By: Jelisavcic, M; Panajotovic, R; Kitajima, M; et al.	1	0	0	0	0	9	0.64

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| <input type="checkbox"/> | 20. | Elastic scattering of slow electrons from ethylene | 0 | 1 | 0 | 0 | 0 | 1 | 0.07 |
| By: Panajotovic, R; Kitajima, M; Tanaka, H; et al.
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Conference: International Symposium on (e,2e), Double Photoionization, and Related Topics/13th International Symposium on Polarization and Correlation in Electronic and Atomic Collisions Location: Buenos Aires, ARGENTINA
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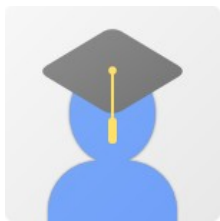


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Electron collisions with ethylene	R Panajotovic, M Kitajima, H Tanaka, M Jelisavcic, J Lower, L Campbell, ... Journal of Physics B: Atomic, Molecular and Optical Physics 36 (8), 1615	44	2003
Elastic and inelastic electron scattering by mercury	R Panajotovic, V Pejcev, M Konstantinovic, D Filipovic, V Bocvarski, ... Journal of Physics B: Atomic, Molecular and Optical Physics 26 (5), 1005	39	1993
Absolute collision cross sections for low energy electron scattering from NO: The role of resonances in elastic scattering and vibrational excitation	M Jelisavcic, R Panajotovic, SJ Buckman Physical review letters 90 (20), 203201	35	2003
An experimental and theoretical study of transient negative ions in Mg, Zn, Cd and Hg	JP Sullivan, PD Burrow, DS Newman, K Bartschat, JA Michejda, ... New Journal of Physics 5 (1), 159	30	2003
Cross sections for low-energy electron scattering from adenine in the condensed phase	R Panajotović, M Michaud, L Sanche Physical Chemistry Chemical Physics 9 (1), 138-148	26	2007
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Excitations of P 1 levels of zinc by electron impact on the ground state	DV Fursa, I Bray, R Panajotović, D Šević, V Pejčev, DM Filipović, ... Physical Review A 72 (1), 012706	16	2005

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Electron scattering from perfluorocyclobutane (c-C 4 F 8)	M Jelisavcic, R Panajotovic, M Kitajima, M Hoshino, H Tanaka, ... The Journal of chemical physics 121 (11), 5272-5280	8	2004
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PHOTONICA'13: 4th International School and Conference on Photonics	D Popović, R Gajić, R Panajotović Physica Scripta 2014 (T162), 010301		2014
Co-conspirators: Space, Molecules and Life	S Jheeta, S Jheeta, D Fulvio, ME Palumbo, A Domaracka, R Panajotovic, ... 39th COSPAR Scientific Assembly 39, 826		2012
Electron-beam irradiation of supported DPPC monolayer films--an XPS study	R Panajotovic, M Schnietz, A Turchanin, N Mason, A Goelzhauser APS Meeting Abstracts 1, 27014		2010
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