

Danijela Randjelović



Naučni savetnik

Adresa:

Centar za mikroelektronske tehnologije, Institut za hemiju, tehnologiju i metalurgiju,
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Akadska titula:

2008 Doktor elektrotehničkih nauka - Univerzitet u Beogradu, Elektrotehnički fakultet

Naučno zvanje:

2014 Naučni savetnik – Institut za hemiju, tehnologiju i metalurgiju, Univerzitet u Beogradu

Učešće u organizacijama i odborima:

- IEEE Senior Member (Institute of Electric and Electronic Engineers, Piscataway, New Jersey, U.S.A.)
- President of the Organizing Committee of the "Second REGMINA Workshop on MEMS and NEMS Technologies" – April 2011
- Member of the International Program Committee of International Conference EUROSENSORS XXV – September 2011
- Member of the International Scientific Committee of International Conference "Science in Technology" SCinTE 2015 - November 2015

Radno iskustvo:

1996 – Today Centar za mikroelektronske tehnologije, Institut za hemiju, tehnologiju i metalurgiju, Univerzitet u Beogradu

Nagrade:

2012 Best oral paper, 28th International Conference On Microelectronics

Oblasti istraživanja:

- Višenamenski MEMS senzori na bazi Zebekovog efekta sa termoparovima (vakuumski senzori, senzori protoka, senzori vrste gasa, termalni konvertori)
- Analitičko i numeričko (CoventorWare) modelovanje MEMS termalnih senzora
- Razvoj inteligentnih transmeta zasnovanih na MEMS sensorima sa termoparovima
- AFM karakterizacija materijala, MEMS/NEMS komponenata, bakterija i nanoemulzija za doziranje lekova
- Fotonski senzori, plazmonika
- MEMS i NEMS naprave
- Razvoj senzora na inovativnim (fleksibilnim) podlogama
- Štampani senzori

Specijalistički kursevi, treninzi i boravci u inostranstvu:

- Postdoktorska stipendija, april 2009 – jul 2009: Institute of Microelectronics IMEL/NCSR "Demokritos", Athens, Greece, Supervisor: Dr Christos Tsamis, finansijer Министарство за науку и технолошки развој Републике Србије
- Dvomesечни trening, oktobar – novembar 2010: (AFM characterization of novel materials - ZnO films and polymer films and training at Plasma etching system): Institute of Microelectronics IMEL/NCSR "Demokritos", Athens, Greece, finansijer FP7 EU project REGMINA
- "FP7 – Financial and project management" course, februar 2011, Europa Media Non-profit Ltd.,
- "FP7 – Financial Reporting and Audits" course, oktobar 2011, Europa Media Non-profit Ltd.,
- Short Term Scientific Mission (STSM), maj 2015: "Printed sensors - materials, fabrication, evaluation and the role of AFM characterization": Laboratory of Paper Coating and Converting Åbo Akademi University, Turku, Finland, finansijer COST Action FP1104

Recenzije:

- Časopisi: Sensors and Actuators A: Physical, Sensors
- Konferencije: EUROSENSORS XXV, IEEE Int. Conference on Microelectronics (MIEL), YUCOMAT 2009, ETRAN
- EU projekti: EMRP, EMPIR, H2020, COST TDP

Citati: 113 (bez autocitata), februar 2016; h index = 6 (izvor: SCOPUS)

Strani jezici: engleski, francuski

Učešće u projektima:

Medjunarodni:

1999 – 2000 Implementation of process modules to sub-micron C-MOS technology and sensors, bilateral collaboration between Yugoslavia and Greece

2005 – 2008 Micro-nano cantilevers based detection of small electromagnetic forces, SCOPES (Scientific co-operation between Eastern Europe and Switzerland), Proj. No. IB7320-110923, Swiss

National Science Foundation (SNSF)

2008 – 2012 Reinforcement of Regional Microsystems and Nanosystems Centre (REGMINA), Proj. No. 205533, 7th Framework Programme, European Union (scientific secretary)

2012 – 2016 New possibilities for print media and packaging - combining print with digital, COST FP1104 action, European Union (MC Member)

2013 – 2016 New permanent magnets for electric-vehicle drive applications (MAG-DRIVE), Proj. ref. 605348, 7th Framework Programme, European Union (scientific secretary)

2015 – 2019 Active and intelligent fibre-based packaging - innovation and market introduction (ActInPak), COST FP1405 action, European Union (MC Member)

Domaći:

1996 – 2000 Microelectronics, Optoelectronics and Microsystem Technologies, Proj. No. 10E05, Ministry of Science and Technology, Republic of Serbia

2002 – 2004 Microsystem and Nanosystem Technologies for Sensors and Optoelectronics, Proj. No. 10E05, Ministry of Science and Environmental Protection, Republic of Serbia

2005 – 2007 Micro and Nanosystem Technologies, Structures and Sensors, Proj. No. TR-6151, Ministry of Science and Environmental Protection, Republic of Serbia

2008 – 2010 Microsystem, Nanosystem Technologies and Devices, Proj. No. 11027, Ministry of Science and Technological Development, Republic of Serbia

2011 – 2016 Micro and Nanosystems for Power Engineering, Process Industry and Environmental Protection MiNaSyS, Proj. No. TR-32008, Ministry of Education, Science and Technological Development, Republic of Serbia

Odabrane publikacije:

Poglavlja:

1. A.B. Nastasović, T.B. Novaković, Z.M. Vuković, B.M. Ekmešćić, D.V. Ranđelović, D.D. Maksin, Z.P. Miladinović, "Polymer-Based Monolithic Porous Composite", Chapter in the book Proceedings of the III Advanced Ceramics and Applications Conference, Atlantis Press, November 2015, pp. 241-257, Print ISBN: 978-94-6239-156-7, Online ISBN: 978-94-6239-157-4

Radovi u časopisima:

1. T. Isailović, S. Đorđević, B. Marković, D. Ranđelović, N. Cekić, M. Lukić, I. Pantelić, R. Daniels, S. Savić, Biocompatible nanoemulsions for improved aceclofenac skin delivery: formulation approach using combined mixture-process experimental design, Journal of Pharmaceutical Sciences, Volume 105, Issue 1, pp. 308-323, January 2016
2. M.N. Todosijević, M.M. Savić, B.B. Batinić, B.D. Marković, M. Gašperlin, D.V. Ranđelović, M.Ž. Lukić, S.D. Savić, Biocompatible microemulsions of a model NSAID for skin delivery: A decisive role of surfactants in skin penetration/irritation profiles and pharmacokinetic performance, International Journal of Pharmaceutics, Volume 496, Issue 2, pp. 931-941, December 2015
3. S.M. Djordjević, N.D. Cekić, M.M. Savić, T.M. Isailović, D.V. Ranđelović, B.D. Marković, S.R. Savić, T. Timić-Stameniće, R. Daniels, S.D. Savić, Parenteral nanoemulsions as promising carriers

- for brain delivery of risperidone: Design, characterization and in vivo pharmacokinetic evaluation, *International Journal of Pharmaceutics*, Volume 493, Issues 1-2, pp. 40-54, September 2015
4. M.N. Todosijević, N.D. Cekić, M.M. Savić, M. Gašperlin, D.V. Randelović, S.D. Savić, Sucrose ester-based biocompatible microemulsions as vehicles for aceclofenac as a model drug: formulation approach using D-optimal mixture design, *Colloids and Polymer Science*, Volume 292, Issue 12, pp. 3061-3076, December 2014
 5. A.B. Menićanin, N.P. Ivanišević, Lj.D. Živanov, M.S. Damjanović, A.M. Marić, D.V. Randjelović, "Improved Performance of Multilayer CPW Inductors on Flexible Substrate", *IEEE Transactions on Magnetics*, Vol. 50, No. 11, Article#: 8401204, November 2014
 6. N. Perinka, M. Držková, D.V. Randjelovic, P. Bondavalli, M. Hajná, P. Bober, T. Syrový, Y. Bonnassieux, J. Stejskal, „Characterization of Polyaniline-Based Ammonia Gas Sensors Prepared by Means of Spray Coating and Ink-Jet Printing“, *Sensor Letters*, Vol. 12, No. 11, pp. 1620-1627, November 2014
 7. I. Jurič, D. Randelović, I. Karlović, I. Tomić, Influence of the surface roughness of coated and uncoated papers on the digital print mottle, *Journal of Graphic Engineering and Design*, Volume 5, Number 1, pp. 17-23, 2014
 8. D.V. Randjelović, M.P. Frantlović, B.L. Miljković, B.M. Popović, Z.S. Jakšić, "Intelligent Thermal Vacuum Sensors Based on Multipurpose Thermopile MEMS Chips", *Vacuum*, Vol. 101, pp. 118-124, March 2014
 9. O.M. Jakšić, Z.S. Jakšić, Ž.D. Čupić, D.V. Randjelović, Lj.Z. Kolar-Anić, "Fluctuations in Transient Response of Adsorption-Based Plasmonic Sensors", *Sensors and Actuators B: Chemical*, Volume 190, pp. 419-428, January 2014
 10. O.M. Jakšić, D.V. Randjelović, Z.S. Jakšić, Ž.D. Čupić, Lj.Z. Kolar-Anić, "Plasmonic sensors in multi-analyte environment: rate constants and transient analysis", *Chemical Engineering Research and Design*, Volume 92, Issue 1, pp. 91-101, January 2014
 11. S.M. Đorđević, T.S. Radulović, N.D. Cekić, D.V. Randelović, M.M. Savić, D.R. Krajišnik, J.R. Milić, S.D. Savić, Experimental Design in Formulation of Diazepam Nanoemulsions: Physicochemical and Pharmacokinetic Performances, *Journal of Pharmaceutical Sciences*, Volume 102, Issue 11, pp. 4159-4172, November 2013
 12. A.B. Menićanin, Lj.D. Živanov, G.M. Stojanović, N.M. Samardžić, D.V. Randjelović, "Transport parameters of inkjet printed nano-particle silver on polyimide substrate measured at room and liquid nitrogen temperatures", *IEEE Transactions on Electron Devices*, Volume 60, Issue 9, pp. 2963-2967, September 2013
 13. J. Milić, V.P. Beškoski, D.V. Randjelović, J. Stojanović, M.V. Vrvic, "Visualisation of the interaction between *Acidithiobacillus ferrooxidans* and oil shale by atomic force microscopy", *Journal of Mining and Metallurgy, Section B: Metallurgy*, Volume 48, Issue 2, pp. 207-217, 2012

14. Z. Jakšić, M. Milinović, D. Randjelović, "Nanotechnological Enhancement Of Infrared Detectors By Plasmon Resonance In Transparent Conductive Oxide Nanoparticles", *Journal of Mechanical Engineering* vol. 58, No. 6, pp. 367-375, 2012
15. J. Avdalović, V. Beškoski, D. Randjelović, M. Stojanović, S. Zildžović, M. Vrvčić, "Ispitivanje mogućnosti bioluženja fosfora iz fosfatne rude sa ležišta Lisina", *Zaštita materijala*, 53, broj 3, pp. 225-230, 2012
16. D. Randjelović, M. Frantlović, B. Miljković, B. Rosandić, Z. Jakšić, B. Popović, "Intelligent Thermopile-Based Vacuum Sensor", *Original Research Article, Procedia Engineering*, Volume 25, pp. 575-578, 2011
17. Z. Djurić, D. Randjelović, P. Krstajić, I. Jokić, M. Djukić, "Theory of Infrared Detector Based on the Microcantilever Resonant Frequency Temperature Dependence" *Original Research Article, Procedia Engineering*, Volume 25, pp. 383-386, 2011
18. N.I. Potkonjak, T.N. Potkonjak, S.N. Blagojević, B. Dudić, D.V. Randjelović, "Current oscillations during the anodic dissolution of copper in trifluoroacetic acid", *Corrosion Science*, Volume 52, Issue 5, pp. 1618-1624, May 2010,
19. A. Petropoulos, G. Kaltsas, D. Randjelović, E. Gogolides, "Study of flow and pressure field in microchannels with various cross-section areas", *Microelectronic Engineering*, Volume 87, pp. 827-829, 2010
20. D. Randjelović, Z. Djurić, A. Petropoulos, G. Kaltsas, Ž. Lazić, M. Popović, "Analytical modelling of thermopile based flow sensor and verification with experimental results", *Microelectronic Engineering*, Volume 86, Issues 4-6, pp. 1293-1296, April-June 2009
21. T. Novaković, N. Radić, B. Grbić, V. Dondur, M. Mitrić, D. Randjelović, D. Stoychev, P. Stefanov, "The thermal stability of porous alumina/stainless steel catalyst support obtained by spray pyrolysis", *Applied Surface Science*, Volume 255, Issue 5, Part 2, pp. 3049-3055, 30 December 2008
22. D. Randjelović, A. Petropoulos, G. Kaltsas, M. Stojanović, Ž. Lazić, Z. Djurić, M. Matić, "Multipurpose MEMS Thermal Sensor Based on Thermopiles", *Sensors and Actuators A, Sensors and Actuators A: Physical*, Vol. 141, Issue 2, pp. 404-413, 15 February 2008
23. J. Lamovec, V. Jović, D. Randjelović, R. Aleksić, V. Radojević, "Analysis of the composite and film hardness of electrodeposited nickel coatings on different substrates", *Thin Solid Films*, 516, pp. 8646-8654, 2008
24. Z. Djurić, D. Randjelović, I. Jokić, J. Matović, J. Lamovec, "A new approach to IR bimaterial detectors theory", *Infrared Physics & Technology* 50, pp 51-57, 2007
25. D.M. Todorović, M. Smiljanić, M. Sarajlić, D. Vasiljević-Radović, D. Randjelović, Investigation of the effects of Ar plasma etching in Si surface by photoacoustic method, *Journal de Physique IV*, 125 pp. 451-455, 2005

26. Z. Djurić, O. Jakšić, D. Randjelović, "Adsorption-Desorption Noise in Micromechanical Resonant Structures", *Sensors and Actuators A*, 96, 2-3, pp 244-251, Feb 2002
27. Z. Djurić, P. Krstajić, M. Smiljanić, D. Randjelović, "Influence of Carrier Diffusion on the Response of RCE Detector", *IEEE I. Quant. Electr.*, 38, 2, pp. 197-202, Feb. 2002
28. Z. Djurić, P. Krstajić, M. Smiljanić, D. Randjelović, "The Effect of Diffusion on the Impulse Response of RCE Detector", *IEEE Photonics Technol. Lett.*, 13, 6, pp. 620-622, 2001
29. Z. Djurić, Z. Jakšić, D. Randjelović, T. Danković, W. Ehrfeld, A. Schmidt, "Enhancement of Radiative Lifetime in Semiconductors Using Photonic Crystals", *Infrared Physics & Technology*, 40, 1, pp. 25-32, 1999

Predavanja po pozivu:

1. D.V. Randjelović, "Multipurpose thermopile-based MEMS sensors developed at ICTM – review of results and perspectives", International Conference Science in Technology ScinTE 2015, 5-7 November, Athens, Greece, 2015, Website: <http://www.scinte.gr>
2. D.V. Randjelović, " Multipurpose Thermopile-Based MEMS Sensors Developed at ICTM-CMTM, Results and Future Plans ", IN+, Instituto Superior Tecnico, Center for Innovation, Technology and Policy Research, Lisbon, Portugal, April 2013, Website: <http://in3.dem.ist.utl.pt/events.asp?EventsID=9>
3. D.V. Randjelović, T. Muck, G. Kaltsas , "Printed Sensors – State of the Art and the Latest Trends", 2nd APOSTILLE FP7 project Workshop on Printed, flexible and nano electronics, May 2013, Novi Sad, Srbija, Website: <http://www.apostille.rs>
4. D.V. Randjelović, T. Novaković, Lj. Rozić, "AFM Studies of Ceramic Based Adsorbents, Catalysts and Composites", 2nd Conference of the Serbian Ceramic Society (2CSCS-2013) Book of Abstracts, pp. 26, Belgrade, Serbia, June 5-7, 2013