

ПРИЛОЗИ

уз извештај комисије о избору др Горана Исића у звање научни саветник

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Прилог:

Научни радови кандидата разврстани по М категоријама

НАУЧНЕ ПУБЛИКАЦИЈЕ КАНДИДАТА РАЗВРСТАНЕ ПО М КАТЕГОРИЈАМА

Напомена 1: изборни период је период након 6. јуна 2017. године када је Научно веће Института за физику у Београду донело одлуку о утврђивању предлога за избор др Горана Исића у звање виши научни сарадник.

Напомена 2: редослед навођења публикација одговара редоследу којим се публикације наводе у извештају комисије и, конкретно, табелама датим у одељку 3.1.3. "Параметри квалитета радова и часописа".

КАТЕГОРИЈА M21a

Чланци публиковани у изборном периоду

[1] U. Ralević, G. Isić, D. Vasić Anićijević, B. Laban, U. Bogdanović, V. M. Lazović, V. Vodnik, R. Gajić

Nanospectroscopy of thiacyanine dye molecules adsorbed on silver nanoparticle clusters

Applied Surface Science 434, 540-548 (2018)

Impakt faktor (2018): 5.155

Kategorija часописа (2018): M21a

M_{norm}: 8.33

SNIP (2018): 1.35

Чланци публиковани пре изборног периода

[2] B. Ding, C. Hrelescu, N. Arnold, G. Isić, T.A. Klar

Spectral and Directional Reshaping of Fluorescence in Large Area Self-Assembled Plasmonic-Photonic Crystals

Nano Letters 13, 378-386 (2013)

Impakt faktor: 13.198

Kategorija часописа: M21a

[3] T.W.H. Oates, B. Dastmalchi, G. Isić, S. Tollabimazraehno, C. Helgert, T. Pertsch, E.B. Kley, M.A. Verschuuren, I. Bergmair, K. Hingerl, K. Hinrichs

Oblique incidence ellipsometric characterization and the substrate dependence of visible frequency fishnet metamaterials

Optics Express 20, 11166-11177 (2012)

Impakt faktor: 3.753

Kategorija часописа: M21a

[4] B. Vasić, G. Isić, R. Gajić, K. Hingerl

Controlling electromagnetic fields with graded photonic crystals in metamaterial regime

Optics Express 18, 20321-20333 (2010)

Impakt faktor: 3.880

Kategorija часописа: M21a

[5] G. Isić, V. Milanović, J. Radovanović, Z. Ikonić, D. Indjin, P. Harrison
Time delay in thin slabs with self-focusing Kerr-type nonlinearity

Physical Review A 77, 033821 (5 strana) (2008)

Impakt faktor: 3.047

Kategorija časopisa: M21a

[6] G. Isić, R. Gajić, B. Novaković, Z. V. Popović, K. Hingerl

Radiation and scattering from imperfect cylindrical electromagnetic cloaks

Optics Express 16, 1413-1422 (2008)

Impakt faktor: 4.009

Kategorija časopisa: M21a

КАТЕГОРИЈА М21

Чланци публиковани у изборном периоду

[1] B. Vasić, G. Isić

Refractive index sensing with hollow metal-insulator-metal metasurfaces

Journal of Physics D: Applied Physics 54, 285106 (2021)

Impakt faktor (2019): 3.169

Kategorija časopisa (2019): M21

M_{norm}: 8

SNIP (2019): 1.15

[2] G. Isić, D. C. Zografopoulos, D. B. Stojanović, B. Vasić, M. R. Belić

Beam Steering Efficiency in Resonant Reflective Metasurfaces

IEEE Journal of Selected Topics in Quantum Electronics 27, 4700208 (2021)

Impakt faktor (2019): 4.917

Kategorija časopisa (2019): M21

M_{norm}: 8

SNIP (2019): 1.62

[3] M. M. Jakovljević, S. Aškrabić, G. Isić, B. Vasić, R. Gajić, M. Artemyev

Pseudo-refractive index and excitonic features of single layer CdSe/CdS core-shell nanoplatelet films

Nanotechnology 31, 435708 (2020)

Impakt faktor (2020): 3.874

Kategorija časopisa (2020): M21

M_{norm}: 8

SNIP (2020): 0.81

[4] B. Vasić, G. Isić, R. Beccherelli, D. C. Zografopoulos

Tunable Beam Steering at Terahertz Frequencies Using Reconfigurable Metasurfaces Coupled With Liquid Crystals

IEEE Journal of Selected Topics in Quantum Electronics 26, 7701609 (2020)

Impakt faktor (2019): 4.917
Kategorija časopisa (2019): M21
 M_{norm} : 8
SNIP (2019): 1.62

[5] G. Isić, G. Sinatkas, D. C. Zografopoulos, B. Vasić, A. Ferraro, R. Beccherelli, E. E. Kriezis, M. Belić
Electrically Tunable Metal-Semiconductor-Metal Terahertz Metasurface Modulators

IEEE Journal of Selected Topics in Quantum Electronics 25, 8500108 (2019)

Impakt faktor (2019): 4.917
Kategorija časopisa (2019): M21
 M_{norm} : 5
SNIP (2019): 1.62

[6] K. V. Girel, A. Yu. Panarin, H. V. Bandarerenga, G. Isić, V. P. Bondarenko, S. N. Terekhov
Plasmonic silvered nanostructures on macroporous silicon decorated with graphene oxide for SERS-spectroscopy

Nanotechnology 29, 395708 (2018)
Impakt faktor (2016): 3.44
Kategorija časopisa (2016): M21
 M_{norm} : 8
SNIP (2016): 0.98

[7] G. Isić, S. Vuković, Z. Jakšić, M. Belić
Tamm plasmon modes on semi-infinite metallo-dielectric superlattices
Scientific Reports 7, 3746 (2017)
Impakt faktor (2015): 5.228
Kategorija časopisa (2015): M21
 M_{norm} : 8
SNIP (2015): 1.61

Чланци публиковани пре изборног периода

[8] B. Vasić, D.C. Zografopoulos, G. Isić, R. Beccherelli, R. Gajić
Electrically tunable terahertz polarization converter based on overcoupled metal-isolator-metal metamaterials infiltrated with liquid crystals
Nanotechnology 28, 124002 (11 strana) (2017)
Impakt faktor: 3.573
Kategorija časopisa: M21

[9] D.C. Zografopoulos, G. Isić, E.E. Kriezis, R. Beccherelli
A switchable circular polarizer based on zenithal bistable liquid crystal gratings
Journal of Physics D: Applied Physics 49, 195104 (6 strana) (2016)
Impakt faktor: 2.772
Kategorija časopisa: M21

[10] U. Ralević, G. Isić, B. Vasić, D. Gvozdić, R. Gajić

Role of waveguide geometry in graphene-based electro-absorptive optical modulators
Journal of Physics D: Applied Physics 48, 355102 (9 strana) (2015)

Impakt faktor: 2.772

Kategorija časopisa: M21

[11] G. Isić, B. Vasić, D.C. Zografopoulos, R. Beccherelli, R. Gajić

Electrically tunable critically coupled terahertz metamaterial absorber based on nematic liquid crystals
Physical Review Applied 3, 064007 (8 strana) (2015)

Impakt faktor: 4.061

Kategorija časopisa: M21

[12] M.M. Jakovljević, G. Isić, B. Dastmalchi, I. Bergmair, K. Hingerl, R. Gajić

Polarization-dependent optical excitation of gap plasmon polaritons through rectangular hole arrays
Applied Physics Letters 106, 143106 (5 strana) (2015)

Impakt faktor: 3.515

Kategorija časopisa: M21

[13] G. Isić, R. Gajić

Geometrical scaling and modal decay rates in periodic arrays of deeply subwavelength Terahertz resonators

Journal of Applied Physics 116, 233103 (6 strana) (2014)

Impakt faktor: 2.210

Kategorija časopisa: M21

[14] U. Ralević, G. Isić, B. Vasić, R. Gajić

Modulating light with graphene embedded into an optical waveguide

Journal of Physics D: Applied Physics 47, 335101 (9 strana) (2014)

Impakt faktor: 2.721

Kategorija časopisa: M21

[15] G. Isić, R. Gajić, S. Vuković

Plasmonic lifetimes and propagation lengths in metaldielectric superlattices

Physical Review B 89, 165427 (11 strana) (2014)

Impakt faktor: 3.767

Kategorija časopisa: M21

[16] G. Isić, R. Gajić

Lifetime and propagation length of light in nanoscopic metallic slots

Journal of the Optical Society of America B 31, 393-399 (2014)

Impakt faktor: 2.210

Kategorija časopisa: M21

[17] B. Vasić, M. Jakovljević, G. Isić, R. Gajić

Tunable metamaterials based on split ring resonators and doped graphene

Applied Physics Letters 103, 011102 (4 strane) (2013)

Impakt faktor: 3.844

Kategorija časopisa: M21

[18] B. Vasić, G. Isić, R. Gajić

Localized surface plasmon resonances in graphene ribbon arrays for sensing of dielectric environment at infrared frequencies

Journal of Applied Physics 113, 013110 (7 strana) (2013)

Impakt faktor: 2.210

Kategorija časopisa: M21

[19] I. Bergmair, W. Hackl, M. Losurdo, C. Helgert, G. Isić, M. Rohn, M. Jakovljević, T. Mueller, M. Giangregorio, E.B. Kley, T. Fromherz, R. Gajić, T. Pertsch, G. Bruno, M. Muehlberger

Nano- and microstructuring of graphene using UV-NIL

Nanotechnology 23, 335301 (6 strana) (2012)

Impakt faktor: 3.979

Kategorija časopisa: M21

[20] M.M. Jakovljević, G. Isić, B. Vasić, T.W.H. Oates, K. Hinrichs, I. Bergmair, K. Hingerl, R. Gajić

Spectroscopic ellipsometry of split ring resonators at infrared frequencies

Applied Physics Letters 100, 161105 (4 strane) (2012)

Impakt faktor: 3.5

Kategorija časopisa: M21

[21] G. Isić, D. Indjin, V. Milanović, J. Radovanović, Z. Ikonijć, P. Harrison

Magnetotunnelling in resonant tunnelling structures with spin-orbit interaction

Journal of Applied Physics 110, 064507 (13 strana) (2011)

Impakt faktor: 2.168

Kategorija časopisa: M21

[22] G. Isić, D. Indjin, V. Milanović, J. Radovanović, Z. Ikonijć, P. Harrison

Scattering effects in resonant magnetotunneling in InAs-based heterostructures

Journal of Nanophononics 5, 051819 (12 strana) (2011)

Impakt faktor: 1.899

Kategorija časopisa: M21

[23] M. Jakovljević, B. Vasić, G. Isić, R. Gajić, T. Oates, K. Hinrichs, I. Bergmair, K. Hingerl

Oblique incidence reflectometry and spectroscopic ellipsometry of split-ring resonators in infrared

Journal of Nanophotonics 5, 051815 (10 strana) (2011)

Impakt faktor: 1.899

Kategorija časopisa: M21

[24] G. Isić, M. Jakovljević, M. Filipović, Dj. Jovanović, B. Vasić, S. Lazović, N. Puač, Z. Lj. Petrović,

R. Kostić, R. Gajić, J. Humliček, M. Losurdo, G. Bruno, I. Bergmair, K. Hingerl

Spectroscopic Ellipsometry of Few-Layer Graphene

Journal of Nanophotonics 5, 051809 (7 strana) (2011)

Impakt faktor: 1.899

Kategorija časopisa: M21

[25] G. Isić, D. Indjin, V. Milanović, J. Radovanović, Z. Ikonijć, P. Harrison

Phase-breaking effects in double-barrier resonant tunneling diodes with spin-orbit interaction

Journal of Applied Physics 108, 044506 (8 strana) (2010)

Impakt faktor: 2.201

Kategorija časopisa: M21

[26] B. Vasić, G. Isić, R. Gajić, K. Hingerl

Coordinate transformation based design of confined metamaterial structures

Physical Review B 79, 085103 (8 strana) (2009)

Impakt faktor: 3.475

Kategorija časopisa: M21

[27] J. Radovanović, G. Isić, V. Milanović

Spin-dependent electron transport in nonmagnetic semiconductor nanostructures

Optical Materials 30, 1134-1138 (2008)

Impakt faktor: 1.714

Kategorija časopisa: M21

[28] G. Isić, J. Radovanović, V. Milanović

Anisotropic spin-dependent electron tunnelling in a triple-barrier resonant tunneling diode

Journal of Applied Physics 102, 123704 (6 strana) (2007)

Impakt faktor: 2.498

Kategorija časopisa: M21

КАТЕГОРИЈА М22

Чланци публиковани пре изборног периода

[1] A. Matković, U. Ralević, G. Isić, M.M. Jakovljević, B. Vasić, I. Milošević, D. Marković, R. Gajić
Spectroscopic ellipsometry and the Fano resonance modeling of graphene optical parameters Physica Scripta T149, 014069 (3 strane) (2012)

Impakt faktor: 1.204

Kategorija časopisa: M22

[2] B. Vasić, G. Isić, R. Gajić, K. Hingerl

Optical design of 2D confined structures with metamaterial layers based on coordinate transformations

Physica Scripta T135, 014045 (5 strana) (2009)

Impakt faktor: 1.088

Kategorija časopisa: M22

[3] G. Isić, V. Milanović, J. Radovanović, D. Indjin, Z. Ikonić, P. Harrison

Nonparabolicity effects and the spin-split electron dwell time in symmetric III-V double-barrier structures
Microelectronics Journal 40, 611-614 (2009)

Impakt faktor: 0.859

Kategorija časopisa: M22

[4] G. Isić, A. Beltaos, R. Gajić, K. Hingerl

Electromagnetic Wave Scattering on Imperfect Cloaking Devices

Science of Sintering 40, 245-250 (2008)

Impakt faktor: 0.481

Kategorija časopisa: M22

КАТЕГОРИЈА М23

Чланци публиковани у изборном периоду

[1] I. Mladenović, Z. Jakšić, M. Obradov, S. Vuković, G. Isić, D. Tanasković, J. Lamovec

Subwavelength nickel-copper multilayers as an alternative plasmonic material

Optical and Quantum Electronics 50, 203 (2018)

Impakt faktor (2018): 1.547
Kategorija časopisa (2018): M23
 M_{norm} : 3
SNIP (2018): 0.66

Чланци публиковани пре изборног периода

- [2] G. Isić, D. Indjin, Z. Ikonijć, V. Milanović, J. Radovanović, P. Harrison
Spin Precession of Quasi-Bound States in Heterostructures with Spin-Orbit Interaction
Acta Physica Polonica A 116, 513-515 (2009)
Impakt faktor: 0.433
Kategorija časopisa: M23
- [3] G. Isić, B. Vasić, M. Mirić, B. Jokanović, I. Bergmair, R. Gajić, K. Hingerl
Modelling the Variable Angle Reflection and Transmission from Metamaterial Slabs
Acta Physica Polonica A 116, 631-634 (2009)
Impakt faktor: 0.433
Kategorija časopisa: M23
- [4] B. Vasić, G. Isić, R. Gajić, K. Hingerl,
Confined Metamaterial Structures Based on Coordinate Transformations
Acta Physica Polonica A 116, 96-98 (2009)
Impakt faktor: 0.433
Kategorija časopisa: M23
- [5] J. Radovanović, V. Milanović, G. Isić, Z. Ikonijć, D. Indjin
Time delay in thin slabs with Kerr-type nonlinearity
Acta Physica Polonica A 112, 987-992 (2007)
Impakt faktor: 0.394
Kategorija časopisa: M23
- [6] S. Savić-Šević, D. Pantelić, R. Gajić, G. Isić
Holographic fabrication of periodic microstructures in dichromated pullulan
Acta Physica Polonica A 112, 1079-1082 (2007)
Impakt faktor: 0.394
Kategorija časopisa: M23
- [7] G. Isić, R. Gajić, B. Novaković, Z. V. Popović, K. Hingerl
Imperfect cloaking devices based on metamaterials
Acta Physica Polonica A 112, 1083-1088 (2007)
Impakt faktor: 0.394
Kategorija časopisa: M23

КАТЕГОРИЈА М31

Резултати публиковани у изборном периоду

- [1] G. Isić, G. Sinatkas, D. C. Zografopoulos, B. Vasić, A. Ferraro, R. Beccherelli, E. E. Kriezis, M. Belić
Terahertz Modulation by Schottky Junction in Metal-Semiconductor-Metal Microcavities

Proceedings of the 2019 21st International Conference on Transparent Optical Networks (ICTON), 9-13 July 2019, Angers, France
Pages: 1-4 (Fr.D1.4)
URL: <https://ieeexplore.ieee.org/abstract/document/8840432>
Kategorija rezultata: M31
 M_{norm} : 2.187

КАТЕГОРИЈА М32

Резултати публиковани пре изборног периода

[1] G. Isić, M.M. Jakovljević, B. Dastmalchi, R. Gajić
Gap plasmons in metallic nanostructures
2nd International Workshop on Metallic Nano-Objects: From Fundamentals to Applications
University of Lille1, 13th-14th November 2014
Villeneuve d' Ascq, France
Book of abstracts page 23
Веб адреса: <http://mno2014.univ-lille1.fr/>
Kategorija часописа: M32

КАТЕГОРИЈА М33

Резултати публиковани у изборном периоду

[1] B. V. Ranishenka, G. Isić, P. Mojzes, S. N. Terekhov, A. Yu. Panarin
Surface modification of plasmonic nanostructures for SERS spectroscopy of biomolecules
Proceedings of the 13th International Conference "Interaction of Radiation with Solids", September 30 - October 3 2019, Minsk, Belarus
Pages: 485-488
URL: https://inis.iaea.org/search/search.aspx?orig_q=RN:51124527
Kategorija rezultata: M33
 M_{norm} : 1

[2] D. C. Zografopoulos, G. Isić, B. Vasić, A. Ferraro, G. Sinatkas, E. E. Kriezis, R. Gajić, R. Beccherelli
Electrically tunable solid-state terahertz metamaterial absorbers
Proceedings of the 12th International Congress on Artificial Materials for Novel Wave Phenomena - Metamaterials 2018, Espoo, Finland, August 27th - September 1st 2018
Pages: 471-473
URL: <https://ieeexplore.ieee.org/abstract/document/8534075>
Kategorija rezultata: M33
 M_{norm} : 0.62

[3] I. Mladenović, Z. Jakšić, M. Obradov, S. Vuković, G. Isić, J. Lamovec
Copper-Nickel heterometallic multilayer composites for plasmonic applications
Proceedings of 4th International Conference on Electrical, Electronics and Computing Engineering, icETRAN 2017, Kladovo, Serbia, June 5-8, ISBN 978-86-7466-692-0
Pages: MOI3.1.1 - MOI3.1.5

URL:

https://www.etrans.rs/common/pages/CD_proceedings/document_files/proceedings_files/IcETRAN2017>About.html

Kategorija rezultata: M33

M_{norm}: 0.83

- [4] M. Obradov, J. Lamovec, I. Mladenović, Z. Jakšić, S. Vuković, G. Isić, D. Tanasković
Tailorable Effective Optical Response of Dual-metal Plasmonic Crystals
Proceedings of the 30th International Conference on Microelectronics (MIEL 2017), Niš, Serbia, October 9-11th, 2017
Pages: 123-126
URL: <https://ieeexplore.ieee.org/abstract/document/8190083/>
Kategorija rezultata: M33
M_{norm}: 0.71

КАТЕГОРИЈА М34

Резултати публиковани у изборном периоду

- [1] G. Isić, S. Nedić, B. Vasić, U. Ralević, S. Aškrabić
Analysis of the ellipsometric spectra of nanometer thick polyelectrolyte layers on silicon wafers with thermally grown silicon dioxide
15th Photonics Workshop (2022), 13-16 March 2022, Kopaonik, Serbia, Book of abstracts, ISBN 978-86-82441-55-7
Page: 17
Kategorija rezultata: M34
M_{norm}: 0.5

- [2] S. Nedić, S. Aškrabić, B. Vasić, G. Isić, U. Ralević
Characterization of ultrathin dielectric films prepared via layer-by-layer polyelectrolyte deposition on thermally oxidized silicon wafers
15th Photonics Workshop (2022), 13-16 March 2022, Kopaonik, Serbia, Book of abstracts, ISBN 978-86-82441-55-7
Page: 31
Kategorija rezultata: M34
M_{norm}: 0.5

- [3] U. Ralević, B. Vasić, S. Aškrabić, S. Nedić, G. Isić
Nanoscopy of transition metal dichalcogenide based van der Waals heterostructures fabricated by the wet and dry transfer methods
15th Photonics Workshop (2022), 13-16 March 2022, Kopaonik, Serbia, Book of abstracts, ISBN 978-86-82441-55-7
Page: 41
Kategorija rezultata: M34
M_{norm}: 0.5

- [4] S. Nedić, S. Aškrabić, B. Vasić, G. Isić
Determination of refractive index of ultrathin dielectric films prepared via layer-by-layer polyelectrolyte deposition

VIII International School and Conference on Photonics - PHOTONICA2021, 23-27 August 2021,
Belgrade, Serbia, Book of abstracts, ISBN 978-86-82441-53-3

Page: 91

Kategorija rezultata: M34

M_{norm}: 0.5

[5] G. Isić, U. Ralević, M. R. Belić

Light absorption in two-dimensional crystals covered by randomly distributed plasmonic nanoparticles
VIII International School and Conference on Photonics - PHOTONICA2021, 23-27 August 2021,
Belgrade, Serbia, Book of abstracts, ISBN 978-86-82441-53-3

Page: 160

Kategorija rezultata: M34

M_{norm}: 0.5

[6] U. Ralević, G. Isić

Optical properties of surface plasmon polaritons launched via metallic grooves
VIII International School and Conference on Photonics - PHOTONICA2021, 23-27 August 2021,
Belgrade, Serbia, Book of abstracts, ISBN 978-86-82441-53-3

Page: 163

Kategorija rezultata: M34

M_{norm}: 0.5

[7] M. M. Jakovljević, S. Aškrabić, M. Artemyev, A. V. Prudnikau, A. V. Antanovich, G. Isić, B. Vasić,
U. Ralević, Z. Dohčević-Mitrović, R. Gajić

"Point-by-point" inversion vs. parametrized fitting of ultrathin film's dielectric function measured by
rotating polarizer ellipsometry

VII International School and Conference on Photonics - PHOTONICA2019, 26-30 August 2019,
Belgrade, Serbia, Book of abstracts, ISBN 978-86-7306-153-5

Page: 110

Kategorija rezultata: M34

M_{norm}: 0.31

[8] B. Vasić, G. Isić, R. Gajić, R. Beccherelli, D. C. Zografopoulos

Liquid crystal based tunable metasurfaces for beam steering at terahertz frequencies

VII International School and Conference on Photonics - PHOTONICA2019, 26-30 August 2019,
Belgrade, Serbia, Book of abstracts, ISBN 978-86-7306-153-5

Page: 165

Kategorija rezultata: M34

M_{norm}: 0.5

[9] U. Ralević, G. Isić, M. Falkner, R. Gajić

Surface plasmon polariton launching by light scattering on grooves in metal films

VII International School and Conference on Photonics - PHOTONICA2019, 26-30 August 2019,
Belgrade, Serbia, Book of abstracts, ISBN 978-86-7306-153-5

Page: 170

Kategorija rezultata: M34

M_{norm}: 0.5

[10] G. Isić, S. Vuković, Z. Jakšić, M. Belić

Plasmonic defect states in metallocodielectric superlattices

VII International School and Conference on Photonics - PHOTONICA2019, 26-30 August 2019, Belgrade, Serbia, Book of abstracts, ISBN 978-86-7306-153-5

Page: 173

Kategorija rezultata: M34

M_{norm}: 0.5

[11] U. Ralević, G. Isić, B. Laban, D. Vasić Aničijević, V. Vodnik, U. Bogdanović, V. Vasić, V. M. Lazović, R. Gajić

Surface enhanced Raman spectroscopy of thiacyanine coated silver nanoparticle clusters

VI International School and Conference on Photonics - PHOTONICA2017, 28 August - 1 September 2017, Belgrade, Serbia, Book of abstracts, ISBN 978-86-82441-46-5

Page: 46

Kategorija rezultata: M34

M_{norm}: 0.36

[12] U. Ralević, A. Panarin, G. Isić

Influence of graphene and two-dimensional materials on electromagnetic enhancement in silver nanoparticle clusters

VI International School and Conference on Photonics - PHOTONICA2017, 28 August - 1 September 2017, Belgrade, Serbia, Book of abstracts, ISBN 978-86-82441-46-5

Page: 185

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M_{norm}: 0.5

[13] G. Isić, Z. Jakšić, S. Vuković

Spontaneous emission into Tamm plasmon modes on semi-infinite metalldielectric superlattices

VI International School and Conference on Photonics - PHOTONICA2017, 28 August - 1 September 2017, Belgrade, Serbia, Book of abstracts, ISBN 978-86-82441-46-5

Page: 187

Kategorija rezultata: M34

M_{norm}: 0.5

[14] G. Isić, U. Ralević, S. Aškrabić, S. Graovac, S. Savić-Šević, A. Mikhailov, A. Antanovich, A. Prudnikau, M. Artemyev, I. Fabijanić, V. Janicki, B. Okorn, J. Sancho-Parramon, R. Gajić

Film-coupled silver nanoparticles on flat and periodically corrugated aluminium substrates

VI International School and Conference on Photonics - PHOTONICA2017, 28 August - 1 September 2017, Belgrade, Serbia, Book of abstracts, ISBN 978-86-82441-46-5

Page: 193

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M_{norm}: 0.21

[15] I. Mladenović, Z. Jakšić, M. Obradov, S. Vuković, G. Isić, D. Tanasković, J. Lamovec

Subwavelength nickel-copper multilayers as an alternative plasmonic material

VI International School and Conference on Photonics - PHOTONICA2017, 28 August - 1 September 2017, Belgrade, Serbia, Book of abstracts, ISBN 978-86-82441-46-5

Page: 199

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Прилог:
Подаци о цитираности кандидата



Goran Isic

Institute of Physics Belgrade

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nano-optics

optical properties of nanoparticles

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НАСЛОВ

НАВЕЛО ГОДИНА

Controlling electromagnetic fields with graded photonic crystals in metamaterial regime	147	2010
B Vasić, G Isić, R Gajić, K Hingerl Optics express 18 (19), 20321-20333		
Localized surface plasmon resonances in graphene ribbon arrays for sensing of dielectric environment at infrared frequencies	134	2013
B Vasić, G Isić, R Gajić Journal of Applied Physics 113 (1), 013110		
Electrically tunable critically coupled terahertz metamaterial absorber based on nematic liquid crystals	127	2015
G Isić, B Vasić, DC Zografopoulos, R Beccherelli, R Gajić Physical Review Applied 3 (6), 064007		
Tunable metamaterials based on split ring resonators and doped graphene	92	2013
B Vasić, MM Jakovljević, G Isić, R Gajić Applied Physics Letters 103 (1), 011102		
Spectral and directional reshaping of fluorescence in large area self-assembled plasmonic–photonic crystals	76	2013
B Ding, C Hrelescu, N Arnold, G Isic, TA Klar Nano letters 13 (2), 378-386		
Electrically tunable terahertz polarization converter based on overcoupled metal-isolator-metal metamaterials infiltrated with liquid crystals	75	2017
B Vasić, DC Zografopoulos, G Isić, R Beccherelli, R Gajić Nanotechnology 28 (12), 124002		
Coordinate transformation based design of confined metamaterial structures	53	2009
B Vasić, G Isić, R Gajić, K Hingerl Physical Review B 79 (8), 085103		
Radiation and scattering from imperfect cylindrical electromagnetic cloaks	47	2008
G Isić, R Gajić, B Novaković, ZV Popović, K Hingerl Optics Express 16 (3), 1413-1422		

НАСЛОВ	НАВЕЛО	ГОДИНА
Spectroscopic ellipsometry of few-layer graphene G Isic, M Jakovljevic, M Filipovic, DM Jovanovic, B Vasic, S Lazovic, ... Journal of Nanophotonics 5 (1), 051809	45	2011
Tunable beam steering at terahertz frequencies using reconfigurable metasurfaces coupled with liquid crystals B Vasić, G Isić, R Beccherelli, DC Zografopoulos IEEE Journal of Selected Topics in Quantum Electronics 26 (5), 1-9	31	2019
Spectroscopic ellipsometry and the Fano resonance modeling of graphene optical parameters A Matković, U Ralević, G Isić, MM Jakovljević, B Vasić, I Milošević, ... Physica Scripta 2012 (T149), 014069	30	2012
Electrically tunable metal–semiconductor–metal terahertz metasurface modulators G Isić, G Sinatkas, DC Zografopoulos, B Vasić, A Ferraro, R Beccherelli, ... IEEE Journal of Selected Topics in Quantum Electronics 25 (3), 1-8	26	2019
Oblique incidence ellipsometric characterization and the substrate dependence of visible frequency fishnet metamaterials TWH Oates, B Dastmalchi, G Isic, S Tollabimazraehno, C Helgert, ... Optics express 20 (10), 11166-11177	16	2012
Phase-breaking effects in double-barrier resonant tunneling diodes with spin-orbit interaction G Isić, D Indjin, V Milanović, J Radovanović, Z Ikonić, P Harrison Journal of Applied Physics 108 (4), 044506	14	2010
Time delay in thin slabs with self-focusing Kerr-type nonlinearity G Isić, V Milanović, J Radovanović, Z Ikonić, D Indjin, P Harrison Physical Review A 77 (3), 033821	14	2008
Anisotropic spin-dependent electron tunneling in a triple-barrier resonant tunneling diode G Isić, J Radovanović, V Milanović Journal of Applied Physics 102 (12), 123704	14	2007
Modulating light with graphene embedded into an optical waveguide U Ralević, G Isić, B Vasić, R Gajić Journal of Physics D: Applied Physics 47 (33), 335101	13	2014
Nano-and microstructuring of graphene using UV-NIL I Bergmair, W Hackl, M Losurdo, C Helgert, G Isic, M Rohn, ... Nanotechnology 23 (33), 335301	13	2012
Geometrical scaling and modal decay rates in periodic arrays of deeply subwavelength Terahertz resonators G Isić, R Gajić Journal of Applied Physics 116 (23), 233103	12	2014
Plasmonic lifetimes and propagation lengths in metalodielectric superlattices G Isić, R Gajić, S Vuković Physical Review B 89 (16), 165427	11	2014

НАСЛОВ	НАВЕЛО	ГОДИНА
Lifetime and propagation length of light in nanoscopic metallic slots G Isić, R Gajić JOSA B 31 (2), 393-399	10	2014
Spectroscopic ellipsometry of split ring resonators at infrared frequencies MM Jakovljević, G Isić, B Vasić, TWH Oates, K Hinrichs, I Bergmair, ... Applied Physics Letters 100 (16), 161105	9	2012
Refractive index sensing with hollow metal–insulator–metal metasurfaces B Vasić, G Isić Journal of Physics D: Applied Physics 54 (28), 285106	8	2021
Plasmonic silvered nanostructures on macroporous silicon decorated with graphene oxide for SERS-spectroscopy KV Girel, AY Panarin, HV Bandarenka, G Isic, VP Bondarenko, ... Nanotechnology 29 (39), 395708	8	2018
Role of waveguide geometry in graphene-based electro-absorptive optical modulators U Ralević, G Isić, B Vasić, D Gvozdić, R Gajić Journal of Physics D: Applied Physics 48 (35), 355102	8	2015
Spin-dependent electron transport in nonmagnetic semiconductor nanostructures J Radovanović, G Isić, V Milanović Optical Materials 30 (7), 1134-1138	8	2008
Nanospectroscopy of thiacyanine dye molecules adsorbed on silver nanoparticle clusters U Ralević, G Isić, DV Anicijević, B Laban, U Bogdanović, VM Lazović, ... Applied Surface Science 434, 540-548	6	2018
A switchable circular polarizer based on zenithal bistable liquid crystal gratings DC Zografopoulos, G Isić, EE Kriezis, R Beccherelli Journal of Physics D: Applied Physics 49 (19), 195104	6	2016
Oblique incidence reflectometry and spectroscopic ellipsometry of split-ring resonators in infrared M Jakovljevic, B Vasic, G Isic, R Gajic, T Oates, K Hinrichs, I Bergmair, ... Journal of Nanophotonics 5 (1), 051815	6	2011
Tamm plasmon modes on semi-infinite metalodielectric superlattices G Isić, S Vuković, Z Jakšić, M Belić Scientific Reports 7 (1), 1-14	5	2017
Polarization-dependent optical excitation of gap plasmon polaritons through rectangular hole arrays MM Jakovljević, G Isić, B Dastmalchi, I Bergmair, K Hingerl, R Gajić Applied Physics Letters 106 (14), 143106	5	2015
Beam steering efficiency in resonant reflective metasurfaces G Isić, DC Zografopoulos, DB Stojanović, B Vasić, MR Belić IEEE Journal of Selected Topics in Quantum Electronics 27 (1), 1-8	4	2020

НАСЛОВ	НАВЕЛО	ГОДИНА
Broadband spatio-temporal propagation characteristics of Airy plasmons AV Singh, M Falkner, M Steinert, T Kaiser, G Isić, T Pertsch OSA Continuum 3 (7), 1870-1878	3	2020
Subwavelength nickel-copper multilayers as an alternative plasmonic material I Mladenović, Z Jakšić, M Obradov, S Vuković, G Isić, D Tanasković, ... Optical and Quantum Electronics 50 (5), 1-9	3	2018
Nonparabolicity effects and the spin–split electron dwell time in symmetric III–V double-barrier structures G Isić, V Milanović, J Radovanović, D Indjin, Z Ikonić, P Harrison Microelectronics journal 40 (3), 611-614	3	2009
Preparation of silver and copper nanoparticles in presence of ascorbic acid and investigation of their antibacterial activity B Laban, M Košanin, G Isić, U Ralević, M Marković, A Jokić, V Vasić The University Thought-Publication in Natural Sciences 7 (2), 36-40	2	2017
Tunable terahertz metamaterials based on nematic liquid crystals DC Zografopoulos, A Ferraro, G Isic, B Vasic, R Gajic, R Beccherelli 2016 41st International Conference on Infrared, Millimeter, and Terahertz ...	2	2016
Scattering effects in resonant magnetotunneling in InAs-based heterostructures G Isic, D Indjin, V Milanovic, JV Radovanovic, Z Ikonic, P Harrison Journal of Nanophotonics 5 (1), 051819	2	2011
Imperfect cloaking devices based on metamaterials G Isic, R Gajic, B Novakovic, ZV Popovic, K Hingerl ACTA PHYSICA POLONICA SERIES A 112 (5), 1083	2	2007
Pseudo-refractive index and excitonic features of single layer CdSe/CdS core–shell nanoplatelet films MM Jakovljević, S Aškrabić, G Isić, B Vasić, R Gajić, M Artemeyev Nanotechnology 31 (43), 435708	1	2020
Surface modification of plasmonic nanostructures for SERS spectroscopy of biomolecules BV Ranishenka, G Isic, P Mojzes, SN Terekhov, AY Panarin	1	2019
Methods of decreasing losses in optical metamaterials Z Jakšić, M Obradov, O Jakšić, G Isić, S Vuković, DV Radović Facta Universitatis. Series: Electronics and Energetics 31 (4), 501-518	1	2018
Publisher Correction: Tamm plasmon modes on semi-infinite metalldielectric superlattices G Isić, S Vuković, Z Jakšić, M Belić Scientific Reports 8 (1), 1-1	1	2018
Electrically tunable solid-state terahertz metamaterial absorbers DC Zografopoulos, G Isic, B Vasic, A Ferraro, G Sinatkas, EE Kriezis, ... 2018 12th International Congress on Artificial Materials for Novel Wave ...	1	2018

НАСЛОВ	НАВЕЛО	ГОДИНА
Magnetotunneling in resonant tunneling structures with spin– orbit interaction G Isić, D Indjin, V Milanović, J Radovanović, Z Ikonić, P Harrison Journal of Applied Physics 110 (6), 064507	1	2011
Characterization of split-ring resonators using spectroscopic ellipsometry M Jakovljevic, G Isic, B Vasic, R Gajic, TWH Oates, K Hinrichs, I Bergmair, ... Metamaterials, Barcelona	1	2011
A quantum transport model for the double-barrier nonmagnetic spin filter G Isić, D Indjin, V Milanović, J Radovanović, Z Ikonić, P Harrison Journal of Physics: Conference Series 242 (1), 012008	1	2010
Modelling the variable angle reflection and transmission from metamaterial slabs G Isića, B Vasića, M Mirića, B Jokanovićc, I Bergmaird, R Gajića, ... Acta Physica Polonica A 116 (4), 631-634	1	2009
Optical design of 2D confined structures with metamaterial layers based on coordinate transformations B Vasić, G Isić, R Gajić, K Hingerl Physica Scripta 2009 (T135), 014045	1	2009
Confined metamaterial structures based on coordinate transformations B Vasic, R Gajic, G Isic, K Hingerl Acta Physica Polonica-Series A General Physics 116 (1), 96	1	2009
Holographic fabrication of periodic microstructures in dichromated pullulan S Savic-Ševic, D Pantelic, R Gajic, G Isic	1	2007
Terahertz Modulation by Schottky Junction in Metal-Semiconductor-Metal Microcavities G Isić, G Sinatkas, DC Zografopoulos, B Vasić, A Ferraro, R Beccherelli, ... 2019 21st International Conference on Transparent Optical Networks (ICTON), 1-4		2019
Tailorable effective optical response of dual-metal plasmonic crystals M Obradov, J Lamovec, I Mladenović, Z Jakšić, S Vuković, G Isić, ... 2017 IEEE 30th International Conference on Microelectronics (MIEL), 123-126		2017
Surface enhanced Raman spectroscopy of thiacyanine coated silver nanoparticle clusters U Ralević, G Isić, B Laban, DV Aničijević, V Vodnik, U Bogdanović, ... Book of abstracts, 46		2017
Influence of graphene and two-dimensional materials on electromagnetic enhancement in silver nanoparticle clusters U Ralević, A Panarin, G Isić Book of abstracts, 185		2017
Film-coupled silver nanoparticles on flat and periodically corrugated aluminium substrates G Isić, U Ralević, S Aškrabić1a, S Graovac, S Savić-Šević, A Mikhailov, ... Book of abstracts, 193		2017

НАСЛОВ

НАВЕЛО ГОДИНА

Spontaneous emission into Tamm plasmon modes on semi-infinite metalloidielectric superlattices

2017

G Isić, Z Jakšić, S Vuković

Book of abstracts, 187

FORMATION OF MONO-AND MULTI-LAYERED FILMS OF LATERALLY ORIENTED SEMICONDUCTOR COLLOIDAL NANOPLALETS

2017

A Mikhailov, G Isic, S Askrabic, A Antanovich, A Prudnikau, M Artemyev

Physics, Chemistry And Application Of Nanostructures: Reviews And Short ...

Copper-Nickel heterometallic multilayer composites for plasmonic applications

2017

I Mladenović, Z Jakšić, M Obradov, SM Vuković, G Isić, J Lamovac

Proceedings of 4th International Conference on Electrical, Electronics and ...

Optical spectroscopy of gap plasmon polaritons in a Swiss cross metamaterial

2016

J Filipović, M Jakovljević, GIK Hingerl, R Gajić, B Dastmalchi, C Helgert, ...

Photonica2015: V International School and Conference and Photonics, 172

Surface plasmons in heterometallic superlattices

2016

G Isić, R Gajić, S Vuković

Photonica2015: V International School and Conference and Photonics, 175

Band structure of gap plasmon polaritons in stacked fishnet structures

2015

MM Jakovljević, G Isić, R Gajić

Book of Abstracts, 192

Surface plasmon polaritons and negative refraction in fishnet metamaterial

2014

B Dastmalchi, G Isic, M Jakovljevic, I Bergmair, K Hingerl, CM Soukoulis

2014 16th International Conference on Transparent Optical Networks (ICTON), 1-1

Large Area Self-Assembled Plasmonic–Photonic Crystals for Spectral and Directional Reshaping of Fluorescence

2013

C Hrelescu, B Ding, N Arnold, G Isic, TA Klar

International Quantum Electronics Conference, II_3_3

Variable angle ellipsometry and polarized reflectometry of the fishnet metamaterials

2011

M Jakovljević, G Isić, B Vasić, R Gajić, I Bergmair, K Hingerl

International School and Conference on Photonics, 85

Electron transport in resonant tunnelling structures with spin-orbit interaction

2011

G Isic

University of Leeds

Spin Precession of Quasi-Bound States in Heterostructures with Spin-Orbit Interaction

2009

G Isića, D Indjina, Z Ikonića, V Milanovićc, J Radovanovićc, P Harrisona

Interface 1, 11

Electromagnetic wave scattering on imperfect cloaking devices

2008

G Isić, A Beltaos, R Gajić, K Hingerl

Science of Sintering 40 (3), 245-250

Time delay in thin slabs with Kerr-type nonlinearity

2007

J Radovanovic, V Milanovic, G Isic, Z Ikonic, D Indjin

ACTA PHYSICA POLONICA SERIES A 112 (5), 987

Anisotropy of spin-dependent electron transport in nonmagnetic resonant tunneling structures

2001

J Radovanović, G Isić, V Milanović

Phys. Rev. B 64, 155312

Light absorption in two-dimensional crystals covered by randomly distributed plasmonic nanoparticles

G Isic, U Ralevic, MR Belic

Efficient beam steering with gradient metasurfaces

G Isić, DC Zografopoulos, DB Stojanović, B Vasić, M Belić

Coupled-mode Theory Approach for Analisys of Resonant Transmission Line

V Miloševic, G Isic, B Jokanovic

Interpretation 500 (d2), 1

Plasmonic defect states in metalodielectric superlattices

G Isić, S Vuković, Z Jakšić, M Belić

Photonica2019: 7th International School and conference on Photonics ...

“Point-by-point” inversion vs. parametrized fitting of ultrathin film’s dielectric function measured by rotating polarizer ellipsometry

MM Jakovljević, S Aškrabić, M Artemyev, AV Prudnikau, AV Antanovich, ...

Photonica2019: 7th International School and conference on Photonics ...

Surface plasmon polariton launching by light scattering on grooves in metal films

U Ralević, G Isić, M Falkner, R Gajić

Photonica2019: 7th International School and conference on Photonics ...

Liquid crystal based tunable metasurfaces for beam steering at terahertz frequencies

B Vasić, G Isić, R Gajić, R Beccherelli, DC Zografopoulos

Photonica2019: 7th International School and conference on Photonics ...

Tailorable spectral dispersion of copper-nickel 1D plasmonic crystals

M Obradov, Z Jakšić, I Mladenović, S Vuković, G Isić, DV Radović, ...

Fabrication of Metamaterials using Graphene

I Bergmair, R Schöftner, M Losurdo, G Bruno, R Gajic, G Isic, M Kafesaki, ...

Large-scale Nanostructuring of Graphene Using UV-based Nanoimprint Lithography

I Bergmair, W Hackl, M Losurdo, C Helgert, G Isic, M Rohn, ...

НАСЛОВ

НАВЕЛО ГОДИНА

Spin dependent transmission probabilities in double-and triple-barrier
Al_xGa_{1-x}Sb heterostructures
G Isić, J Radovanović, V Milanović

Plasmonic resonances in the infrared spectra of nanostructured
graphene
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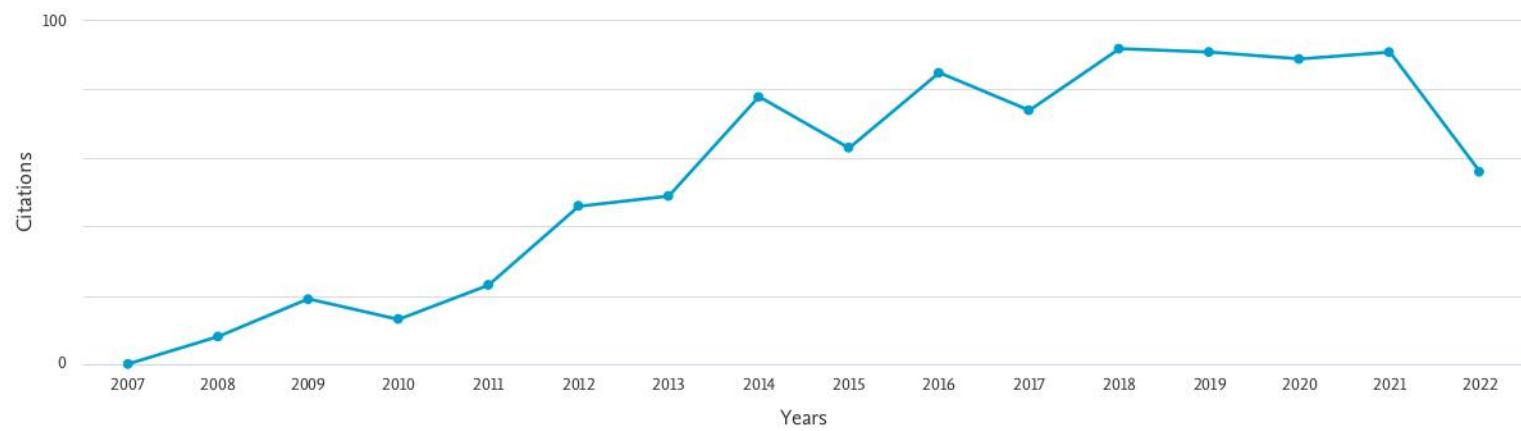
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<input type="checkbox"/> 49	Spin-dependent electron transport in nonmagnetic semiconduct...	2008										1		2	1				1	5	5		
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<input type="checkbox"/> 52	Imperfect cloaking devices based on metamaterials	2007												1						1	1		
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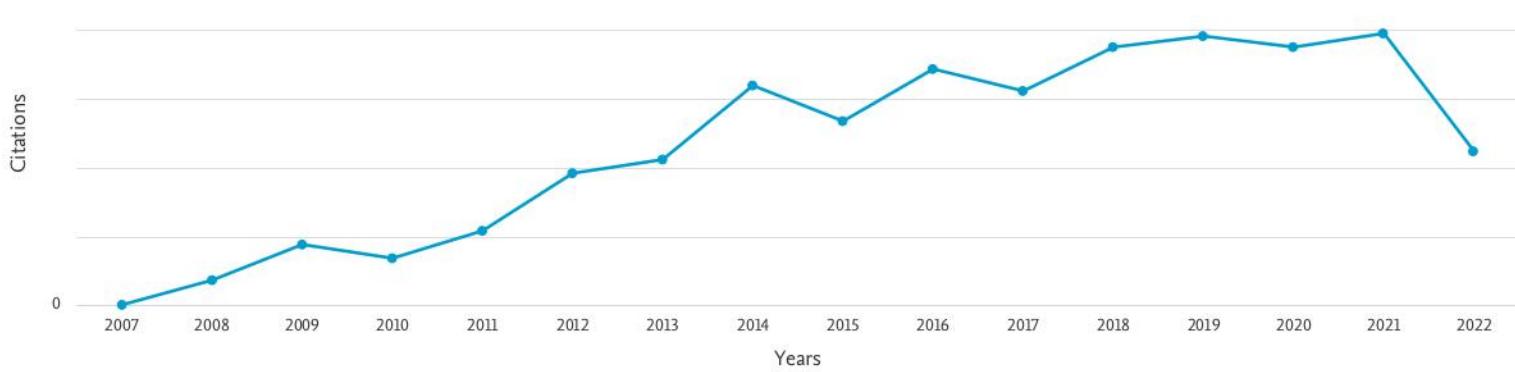
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		Total	0	0	9	22	17	27	48	53	80	67	86	78	94	98	94	99	56	928	0	928	
<input type="checkbox"/> 1 Refractive index sensing with hollow metal-insulator-metal m...	2021																		1	4	5	5	5
<input type="checkbox"/> 2 Beam Steering Efficiency in Resonant Reflective Metasurfaces	2021																		2	1	3	3	3
<input type="checkbox"/> 3 Pseudo-refractive index and excitonic features of single lay...	2020																		1		1	1	1
<input type="checkbox"/> 4 Tunable Beam Steering at Terahertz Frequencies Using Reconfig...	2020																		7	12	4	23	23
<input type="checkbox"/> 5 Broadband spatio-temporal propagation characteristics of Air...	2020																		1	2	3	3	3
<input type="checkbox"/> 6 Terahertz modulation by schottky junction in metal-semicondu...	2019																		0		0	0	0
<input type="checkbox"/> 7 Electrically tunable metal-semiconductor-metal terahertz met...	2019																		5	7	8	22	22
<input type="checkbox"/> 8 Electrically tunable solid-state terahertz metamaterial abso...	2018																		1		1	1	1

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<input type="checkbox"/> 12	Erratum: Publisher Correction: Tamm plasmon modes on semi-in...	2018																	1		1		1	1			
<input type="checkbox"/> 13	Tailorable effective optical response of dual-metal plasmoni...	2017																		0		0		0	0		
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<input type="checkbox"/> 15	Electrically tunable terahertz polarization converter based ...	2017															5	19	16	15	10	7	72	72			
<input type="checkbox"/> 16	Tunable terahertz metamaterials based on nematic liquid crys...	2016															1		1	2		4	4	4			
<input type="checkbox"/> 17	A switchable circular polarizer based on zenithal bistable l...	2016															3		1	2		6	6	6			
<input type="checkbox"/> 18	Role of waveguide geometry in graphene-based electro-absorpt...	2015															1	1	2			4	4	4			
<input type="checkbox"/> 19	Electrically tunable critically coupled terahertz metamateri...	2015														3	12	14	21	23	14	18	7	112	112		
<input type="checkbox"/> 20	Polarization-dependent optical excitation of gap plasmon pol...	2015														1		1				2	2	2			
<input type="checkbox"/> 21	Geometrical scaling and modal decay rates in periodic arrays...	2014														2	1	3		2		2	1	11	11		
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<input type="checkbox"/> 24	Large area self-assembled plasmonic-photonic crystals for sp...	2013																				0	0	0	0		
<input type="checkbox"/> 25	Tunable metamaterials based on split ring resonators and dop...	2013														3	9	7	12	9	12	10	9	4	6	81	81
<input type="checkbox"/> 26	Spectral and directional reshaping of fluorescence in large ...	2013														7	12	7	9	11	5	2	6	6	3	68	68
<input type="checkbox"/> 27	Localized surface plasmon resonances in graphene ribbon arra...	2013														3	16	17	18	11	13	14	12	12	8	124	124
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<input type="checkbox"/> 29	Nano- and microstructuring of graphene using UV-NIL	2012														2	2		1		1	1	1	8	8	8	
<input type="checkbox"/> 30	Oblique incidence ellipsometric characterization and the sub...	2012														3	4	4	1		1	1	1	15	15	15	
<input type="checkbox"/> 31	Spectroscopic ellipsometry of split ring resonators at infra...	2012														1	2	5		1		1		10	10	10	
<input type="checkbox"/> 32	Spectroscopic ellipsometry and the Fano resonance modeling o...	2012														1	3	1	2	6	1	2	3	1	1	21	21
<input type="checkbox"/> 33	Magnetotunneling in resonant tunneling structures with spin ...	2011														1							1	1	1		
<input type="checkbox"/> 34	Scattering effects in resonant magnetotunneling in InAs-base...	2011														1							1	1	1		
<input type="checkbox"/> 35	Spectroscopic ellipsometry of few-layer graphene	2011														6	3	2	1	5	4	4	2	2	1	34	34
<input type="checkbox"/> 36	Oblique incidence reflectometry and spectroscopic ellipsomet...	2011														2	2		1	1				6	6	6	

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<input type="checkbox"/> 37	Controlling electromagnetic fields with graded photonic crys...	2010								7	17	10	15	11	12	11	9	8	9	7	6	122	122
<input type="checkbox"/> 38	Phase-breaking effects in double-barrier resonant tunneling ...	2010								4	2	1	1	2	2						12	12	
<input type="checkbox"/> 39	A quantum transport model for the double-barrier nonmagnetic...	2010												1							1	1	
<input type="checkbox"/> 40	Optical design of 2D confined structures with metamaterial l...	2009											1								1	1	
<input type="checkbox"/> 41	Nonparabolicity effects and the spin-split electron dwell ti...	2009								1			1	1							3	3	
<input type="checkbox"/> 42	Coordinate transformation based design of confined metamater...	2009							4	7	7	10	6	3	2	1	1	1		1	43	43	
<input type="checkbox"/> 43	Spin Precession of Quasi-Bound States in Heterostructures wi...	2009																			0	0	
<input type="checkbox"/> 44	Modelling the variable angle reflection and transmission fro...	2009									1										1	1	
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<input type="checkbox"/> 46	Electromagnetic wave scattering on imperfect cloaking device...	2008																			0	0	
<input type="checkbox"/> 47	Time delay in thin slabs with self-focusing Kerr-type nonlin...	2008					2	4	1	2	3				2	1					15	15	
<input type="checkbox"/> 48	Radiation and scattering from imperfect cylindrical electrom...	2008					6	10	5	2	3	4	3	2	2	2	1				38	38	
<input type="checkbox"/> 49	Spin-dependent electron transport in nonmagnetic semiconduct...	2008						1	1	1		2	1								1	7	7
<input type="checkbox"/> 50	Anisotropic spin-dependent electron tunneling in a triple-ba...	2007						1	1	3	3	1	1	2							12	12	
<input type="checkbox"/> 51	Holographic fabrication of periodic microstructures in dichr...	2007							1												1	1	
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2020							
2021							
2022							

10	Electrically Tunable Metal-Semiconductor-Metal Terahertz Metasurface Modulators	Ilic, G.; Sintakas, G.; Belic, M.	May-Jun 2019 <i>IEEE JOURNAL OF SELECTED TOPICS IN QUANTUM ELECTRONICS</i> 25 (3)	0	3	7	9	2
11	Spectroscopic ellipsometry and the Fano resonance modeling of graphene optical parameters	Martovic, A.; Ralevic, M.; Galic, R.	3rd International School and Conference on Photonics Apr 2012 <i>PHYSICA SCRIPTA</i> T149	3	3	0	0	1
12	Tunable Beam Steering at Terahertz Frequencies Using Reconfigurable Metasurfaces Coupled With Liquid Crystals	Varic, B.; Ilic, G.; I-k Zografopoulos, DC	Sept-Oct 2020 <i>IEEE JOURNAL OF SELECTED TOPICS IN QUANTUM ELECTRONICS</i> 26 (5)	0	0	7	5	6
13	Oblique incidence ellipsometric characterization and the substrate dependence of visible frequency fishnet metamaterials	Yates, TWB; Dastmalchi, B.; Hinrichs, K.	May 7 2012 <i>OPTICS EXPRESS</i> 20 (10), pp.11166-11177	1	0	1	1	0
14	Time delay in thin slabs with self-focusing Kerr-type nonlinearity	Ilic, G.; Miljanovic, V.; Harrison, P.	Mar 2008 <i>PHYSICAL REVIEW A</i> 77 (3)	0	0	0	0	0
15	Phase-breaking effects in double-barrier resonant tunneling diodes with spin-orbit interaction	Ilic, G.; Indjin, D.; I-k Harrison, P.	Aug 15 2010 <i>JOURNAL OF APPLIED PHYSICS</i> 108 (4)	0	0	0	0	0
16	Anisotropic spin-dependent electron tunneling in a triple-barrier resonant tunneling diode	Ilic, G.; Radovanovic, J. and Miljanovic, V.	Dec 15 2007 <i>JOURNAL OF APPLIED PHYSICS</i> 102 (12)	0	0	0	0	0
17	Geometrical scaling and modal decay rates in periodic arrays of deeply subwavelength Terahertz resonators	Ilic, G. and Galic, R.	Dec 21 2014 <i>JOURNAL OF APPLIED PHYSICS</i> 116 (23)	0	1	0	2	1
18	Spectroscopic ellipsometry of split ring resonators at infrared frequencies	Jakovljevic, MM; Ilic, G.; Galic, R.	Apr 16 2012 <i>APPLIED PHYSICS LETTERS</i> 100 (16)	0	1	0	0	0
19	Modulating light with graphene embedded into an optical waveguide	Ralevic, M.; Ilic, G.; Galic, R.	Aug 20 2014 <i>JOURNAL OF PHYSICS D-APPLIED PHYSICS</i> 47 (33)	0	1	0	2	0
20	Plasmonic lifetimes and propagation lengths in metalodielectric superlattices	Ilic, G.; Galic, R. and Lukovic, S.	Apr 28 2014 <i>PHYSICAL REVIEW B</i> 89 (16)	0	1	0	0	0
21	Nano- and microstructuring of graphene using UV-NIL	Bergmaier, J.; Hackl, W.; L.; Muehlberger, M.	Aug 24 2012 <i>NANOTECHNOLOGY</i> 23 (33)	0	1	1	1	0
22	Lifetime and propagation length of light in nanoscopic metallic slots	Ilic, G. and Galic, R.	Feb 2014 <i>JOURNAL OF THE OPTICAL SOCIETY OF AMERICA B-OPTICAL PHYSICS</i> 31 (2), pp.393-399	0	0	1	0	1
23	Spin-dependent electron transport in nonmagnetic semiconductor nanostructures	Radovanovic, J.; Ilic, G. and Miljanovic, V.	1st International Conference on Physics of Optical Materials and Devices Mar 2008 <i>OPTICAL MATERIALS</i> 30 (7), pp.1134-1138	0	0	0	1	0
24	Plasmonic silvered nanostructures on macroporous silicon decorated with graphene oxide for SERS-spectroscopy	Girej, KV; Banarin, AV.; Terekhov, SN	Sep 28 2018 <i>NANOTECHNOLOGY</i> 29 (39)	0	2	1	2	1
25	A switchable circular polarizer based on zenithal bistable liquid crystal gratings	Zografopoulos, DC; Ilic, G.; Belic, M.; Becherelli, R.	May 18 2016 <i>JOURNAL OF PHYSICS D-APPLIED PHYSICS</i> 49 (19)	0	1	2	0	0
26	Nanospectroscopy of thiacyanine dye molecules adsorbed on silver nanoparticle clusters	Ralevic, M.; Ilic, G.; Galic, R.	Mar 15 2018 <i>APPLIED SURFACE SCIENCE</i> 434, pp.540-548	1	2	0	1	0
27	Tamm plasmon modes on semi-infinite metalodielectric superlattices	Ilic, G.; Lukovic, S.; I-k Belic, M.	Jun 16 2017 <i>SCIENTIFIC REPORTS</i> 7	4	0	0	0	0
28	Role of waveguide geometry in graphene-based electro-absorptive optical modulators	Ralevic, M.; Ilic, G.; Galic, R.	Sep 9 2015 <i>JOURNAL OF PHYSICS D-APPLIED PHYSICS</i> 48 (35)	1	0	2	0	0



29	Vasic, B and Isic, G Jul 15 2021 JOURNAL OF PHYSICS D-APPLIED PHYSICS 54 (28)	0	0	0	1	2	1.5	3
Enriched Cited References								
30	Beam Steering Efficiency in Resonant Reflective Metasurfaces Isic, G; Zografopoulos, DC (-); Belic, MR Jan-Feb 2021 IEEE JOURNAL OF SELECTED TOPICS IN QUANTUM ELECTRONICS 27 (1)	0	0	0	2	1	1.5	3
Broadband spatio-temporal propagation characteristics of Airy plasmons								
31	Singh, A; Falkner, M; L.; Pertsch, T Jul 15 2020 OSA CONTINUUM 3 (7) , pp.1870-1878	0	0	0	2	1	1	3
Nonparabolicity effects and the spin-split electron dwell time in symmetric III-V double-barrier structures								
32	Isic, G; Miljanovic, V (-); Harrison, P Workshop on Recent Advances on Low Dimensional Structures and Devices Mar 2009 MICROELECTRONICS JOURNAL 40 (3) , pp.611-614	0	0	0	0	0	0.21	3
Subwavelength nickel-copper multilayers as an alternative plasmonic material								
33	Mladenovic, J; Jakšić, Z (-); Lamovac, J May 2018 OPTICAL AND QUANTUM ELECTRONICS 50 (5)	0	0	2	0	0	0.4	2
Polarization-dependent optical excitation of gap plasmon polaritons through rectangular hole arrays								
34	Jakovljevic, MM; Isic, G (-); Galic, B Apr 6 2015 APPLIED PHYSICS LETTERS 106 (14)	0	1	0	0	0	0.25	2
Scattering effects in resonant magnetotunneling in InAs-based heterostructures								
35	Isic, G; Indin, D; I.; Harrison, P Jul 19 2011 JOURNAL OF NANOPHOTONICS 5	0	0	0	0	0	0.17	2
Oblique incidence reflectometry and spectroscopic ellipsometry of split-ring resonators in infrared								
36	Jakovljevic, M; Vasic, B (-); Hingerl, K Jul 1 2011 JOURNAL OF NANOPHOTONICS 5	0	0	0	0	0	0.17	2
Pseudo-refractive index and excitonic features of single layer CdSe/CdS core-shell nanoplatelet films								
37	Jakovljevic, MM; Askrabici, S (-); Artemjević, M Oct 23 2020 NANOTECHNOLOGY 31 (43)	0	0	0	1	0	0.33	1
METHODS OF DECREASING LOSSES IN OPTICAL METAMATERIALS								
38	Jakšić, Z; Obradović, M; I.; Radojević, DV Dec 2018 FACTA UNIVERSITATIS-SERIES ELECTRONICS AND ENERGETICS 31 (4) , pp.501-518	0	1	0	0	0	0.2	1
Tamm plasmon modes on semi-infinite metalodielectric superlattices (vol 7, 3746, 2017)								
39	Isic, G; Vukovic, S (-); Belic, M Mar 8 2018 SCIENTIFIC REPORTS 8	0	0	1	0	0	0.2	1
Electrically tunable solid-state terahertz metamaterial absorbers								
40	Zografopoulos, DC; Isic, G (-); Becherelli, R 12th International Congress on Artificial Materials for Novel Wave Phenomena (METAMATERIALS) 2018 2018 12TH INTERNATIONAL CONGRESS ON ARTIFICIAL MATERIALS FOR NOVEL WAVE PHENOMENA (METAMATERIALS) , pp.471-473	0	0	0	1	0	0.2	1
Magnetotunneling in resonant tunneling structures with spin - orbit interaction								
41	Isic, G; Indin, D; I.; Harrison, P Sep 15 2011 JOURNAL OF APPLIED PHYSICS 110 (6)	0	0	0	0	0	0.08	1
Modelling the Variable Angle Reflection and Transmission from Metamaterial Slabs								
42	Isic, G; Vasic, B (-); Hingerl, K International School and Conference on Photonics (PHOTONICA09) Oct 2009 ACTA PHYSICA POLONICA A 116 (4) , pp.631-634	0	0	0	0	0	0.07	1
Confined Metamaterial Structures Based on Coordinate Transformations								
43	Vasic, B; Galic, B; I.; Hingerl, K Symposium on Raman Scattering in Materials Science Jul 2009 ACTA PHYSICA POLONICA A 116 (1) , pp.96-98	0	0	0	0	0	0.07	1
Optical design of 2D confined structures with metamaterial layers based on coordinate transformations								
44	Vasic, B; Isic, G (-); Hingerl, K 15th Central European Workshop on Quantum Optics Jul 2009 PHYSICA SCRIPTA T135	0	0	0	0	0	0.07	1
Imperfect cloaking devices based on metamaterials								
45	Isic, G; Galic, B (-); Hingerl, K International School and Conference on Optics and Optical Materials Nov 2007 ACTA PHYSICA POLONICA A 112 (9) , pp.1083-1088	0	0	0	0	0	0.06	1
Holographic fabrication of periodic microstructures in dichromated pullulan								
46	Savic-Savic, S; Pantelic, D (-); Isic, G International School and Conference on Optics and Optical Materials Nov 2007 ACTA PHYSICA POLONICA A 112 (5) , pp.1079-1082	0	0	0	0	0	0.06	1
Tailorable Effective Optical Response of Dual-metal Plasmonic Crystals								
47	Obradović, M; Lamovac, J (-); Tanaskovic, D 30th IEEE International Conference on Microelectronics (MIEL) 2017 2017 IEEE 30TH INTERNATIONAL CONFERENCE ON MICROELECTRONICS (MIEL) , pp.123-126	0	0	0	0	0	0	0
Tunable terahertz metamaterials based on nematic liquid crystals								
48	Zografopoulos, DC; Ferraro, A (-); Becherelli, R 41st International Conference on Infrared, Millimeter, and Terahertz Waves (IRMMW-THz) 2016 2016 41ST INTERNATIONAL CONFERENCE ON INFRARED, MILLIMETER, AND TERAHERTZ WAVES (IRMMW-THz)	0	0	0	0	0	0	0
Surface Plasmon Polaritons and Negative Refraction in Fishnet Metamaterial								
49	Dastmalchi, R; Isic, G (-); Seokouli, CM	0	0	0	0	0	0	0



Large Area Self-Assembled Plasmonic-Photonic Crystals for Spectral and Directional Reshaping of
Fluorescence

50 [Heleacu, C.](#) [Ding, BY.](#) (✉) [Klar, JA.](#)

Conference on Lasers and Electro-Optics Europe & International Quantum Electronics Conference (CLEO/Europe-IQEC)
2013 | 2013 CONFERENCE ON LASERS AND ELECTRO-OPTICS EUROPE AND INTERNATIONAL QUANTUM ELECTRONICS CONFERENCE
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Прилог:
Докази менторства

UNIVERZITET U BEOGRADU
ELEKTROTEHNIČKI FAKULTET

Milka M. Jakovljević

Proučavanje plazmonskeih nanostruktura
korišćenjem spektroskopske elipsometrije

doktorska disertacija

Beograd, 2015.

UNIVERSITY OF BELGRADE
FACULTY OF ELECTRICAL ENGINEERING

Milka M. Jakovljević

Investigation of plasmonic nanostructures
using spectroscopic ellipsometry

Doctoral Dissertation

Belgrade, 2015.

Članovi komisije:

dr Radoš Gajić, **mentor**
naučni savetnik,
Institut za fiziku, Univerzitet u Beogradu

dr Jelena Radovanović,
vandredni profesor,
Elektrotehnički fakultet, Univerzitet u Beogradu

dr Milan Tadić,
redovni profesor,
Elektrotehnički fakultet, Univerzitet u Beogradu

dr Goran Isić, **komentor**
naučni saradnik,
Institut za fiziku, Univerzitet u Beogradu

dr Milka Potrebić,
docent,
Elektrotehnički fakultet, Univerzitet u Beogradu

Datum odbrane:

Zahvalnosti

Želela bih da se zahvalim pojedincima i institucijama koje su mi omogućili izradu ovog rada:

Dr Radošu Gajiću, naučnom savetniku u Institutu za fiziku, koji je nesebično podelio sa mnom svu literaturu iz oblasti spektroskopske elipsometrije i pružio mi mogućnost da radim na jedinstvenom instrumentu u zemlji, ali i koji me je uveo u svet plazmonike i metamaterijala. Pod njegovim veštim mentorstvom, povezane su dva ključna elementa ovog rada: elipsometrija i plazmonske nanostrukture. Takođe, omogućio mi je da aktivno učestvujem u realizaciji dva FP7 projekta, NIM_NIL i Nanocharm, u okviru kojih sam dosta toga naučila, što je direktno ili indirektno uticalo na izradu ovog rada.

Dr Goranu Isiću, naučnom saradniku u Institutu za fiziku, od koga sam dosta naučila ne samo o plazmonskim nanostrukturama, već o mnogim pojmovima iz fizike koji su manje ili više povezani sa temom ovog rada. Takođe mu se zahvaljujem na komentorstvu, idejama i savetima koji su pomogli realizaciju ovog rada.

Dr Borislavu Vasiću, naučnom saradniku u Institutu za fiziku, sa kim sam imala sreće da sarađujem i koji mi je predložio da se bavim plazmonskim nanostrukturama, a svojim savetima i idejama doprineo kvalitetu ovog rada.

Akademiku dr Zoranu Popoviću, naučnom savetniku u Institutu za fiziku, koji mi je omogućio da radim u Centru za fiziku čvrstog stanja i nove materijale, Instituta za fiziku u Beogradu.

Profesoru dr Kurtu Hingerlu, direktoru Centra za površine i nanoanalitiku na Johan Kepler Univerzitetu u Lincu koji je naš dugogodišnji saradnik i koji je na izradi

najmodernijih plazmonske nanostruktura, koje su bile predmet istraživanja u ovom radu.

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Proučavanje plazmonskih nanostruktura korišćenjem spektroskopske elipsometrije

Apstrakt

Sa najnovijim razvojem nanotehnologije došlo je do ponovnog interesovanja za polje plazmonike. Nanoplazmonika povezuje fotoniku sa nanonaukama tako što konfinira svetlost u nanometarske zapremine, dok se manipulacija svetlošću na nanoskali bazira na osobinama prostirućih i lokalizovanih površinskih plazmona. Važan korak u eksploataciji plazmonskih nanostruktura je njihov dizajn i karakterizacija. Najčešće korišćene tehnike za karakterizaciju se baziraju na merenjima intenziteta. One daju informacije o amplitudama reflektovanih ili transmitovanih talasa nakon njihove interakcije sa uzorkom, ali ne daju nikakvu informaciju o njihovim fazama.

U ovom radu, formira se strategija za karakterizaciju plazmonskih nanostruktura korišćenjem spektroskopske elipsometrije (SE), koja sama po sebi meri odnos amplituda i razliku faza za dve karakteristične polarizacije. SE je veoma brza, nedestruktivna, neninvazivna, absolutna i veoma precizna tehnika, ali zahteva složeno modelovanje za interpretaciju eksperimentalnih rezultata. U tu svrhu, korišćena su dva programska paketa COMSOL Multiphysics i RETICOLO-2D. Odgovarajuće simulacije omogućuju izdvajanje informacija koje nisu dostupne u samom eksperimentu. Proučavani su i prostirući i lokalizovani površinski plazmoni, prvi pobuđeni u fišnet nanostrukturama i drugi koji se javljaju u SRR (engl. *Split Ring Resonators*).

Izučavane fišnet strukture, bazirane su na dvo-dimenzionom (2D) nizu pravougaonih rupa izbušenih u zlato/silicijum dioksid/zlato tankim slojevima. Ove strukture podržavaju jako konfinirane GPP (engl. *Gap Plasmon Polariton*) u tankom dielektričnom sloju. Kada su rupe ozbušene u 2D periodičnu mrežu veličine 500 x 600 nm², moguće je direktno optičko pobuđivanje GPP u bliskom infracrvenom

delu spektra. Analizom elipsometrijskih spektara, otkriveno je da su GPP efikasnije pobuđeni i disperzija im manje odstupa od disperzije GPP u glatkoj strukturi kada je upadna svetlost polarizovana duž kraćih ivica rupa. Mogući razlog za ovakvo ponašanje je ekscitacija lokalizovanih rezonanci rupa na učestanostima bliskim GPP. Ipak, simulacije u kojima su posmatrane manje rupe, pri čemu je zadržan odnos širina/dužina kao kod originalnih fišnet struktura, pokazuju da zavisnost od polarizacije postoji čak i kada se rezonanca rupe me poklapa sa GPP rezonancama. Ovaj efekat je objašnjen pomoću kvazi-statičke polarizabilnosti rupa.

Optičko pobuđivanje lokalizovanih plazmonske rezonanci u 2D poređanim SRR posmatrano je u srednjem infracrvenom delu spektra. Elipsometrijski spektri su objašnjeni na osnovu izračunatih kompleksnih koeficijenata refleksije za dve karakteristične polarizacije. Pokazano je da izbor upadne ravni dosta utiče na formiranje SE spektara. Ako se upadna ravan poklapa sa ravni simetrije, vrhovi u SE spektrima odgovaraju parnim plazmonskim modovima, a kada je upadna ravan ortogonalna na ravan simetrije, vrhovi potiču od pobuđivanja neparnih modova. Kako su elipsometrijska merenja vršena pri kosim upadnim uglovima, javlja se retardacija upadnog polja. To omogućava eksitaciju modova koji nisu dozvoljeni simetrijom SRR pri normalnoj incidenciji. Veliko pojačanje polja na rezonancijama daje površinski pojačanu infracrvenu SE, dok strmi skokovi u spektrima faze na rezonantnim učestanostima povećavaju osetljivost elipsometrijskog odziva na različite faktore iz sredine u kojoj se nalaze SRR.

Ključne reči: plazmon polariton, fishnet nanostruktura, elipsometrija, nanofotonika, plazmonske rezonance

Naučna oblast: Elektrotehnika

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Investigation of plasmonic nanostructures using spectroscopic ellipsometry

Abstract

Recent developments of nanotechnology renewed interests in the field of plasmonics. Nanoplasmonics connects photonics to nanosciences by squeezing the light into nanometer sized volumes, while the light manipulation at the nanoscale is based on properties of propagating and localized surface plasmons. Important step in exploitation of plasmonic nanostructures is their design and characterization. Most frequently used techniques for characterization are based on intensity measurements. They give information about the amplitudes of reflected or transmitted waves after their interaction with the sample, but they do not give any information about their phases.

In this work, we are creating strategy how to characterize plasmonic nanostructures using spectroscopic ellipsometry (SE), which inherently measures amplitude ratio and phase difference for the two characteristic polarizations. SE is very fast, nondestructive, noninvasive, absolute and very precise technique, but it requires advanced modelling to interpret experimental data. For that purpose, we are using two numerical packages COMSOL Multiphysics and RETICOLO-2D. Correct simulations enable extraction of additional information, non-accessible through the experiment. Both propagating and localized surface plasmons are studied, first excited in fishnet nanostrucutres and later appearing in split ring resonators (SRR).

Fishnet structures considered here, are based on two-dimensional array of rectangular holes perforated in gold/silica/gold thin film stack. These structures support highly confined gap plasmon polartions (GPPs) in the thin dielectric layer. The $500 \times 600 \text{ nm}^2$ periodic arrangement of the holes enables direct optical excitation of GPPs at near-infrared frequencies. Analyzing the features in the

ellipsometric spectra, it is found that the GPPs are much more efficiently excited and have a higher deviation from the flat film GPP dispersion when incident light is polarized along the short axis of the holes. Potential reason for this behavior is excitation of localized resonances of the holes at frequencies close to those of GPPs. However, simulations that included smaller holes with the same aspect ratio as the original ones, suggest that polarization dependence persists even in the absence of the hole resonances. This effect is explained by quasi-static polarizability of the holes.

Optical excitation of localized plasmon resonances in 2D array of split ring resonators (SRR) is investigated in the mid-infrared range. The features in the ellipsometric spectra are explained on the basis of calculated polarized complex reflection spectra. It is shown that the choice of plane of incidence (POI) greatly affects the SE spectra. If POI matches mirror symmetry plane of the SRRs, peaks in the ellipsometric spectra correspond to even plamonic modes and if POI it is orthogonal to the symmetry plane, then peaks originate from odd modes excitation. Oblique incidence ellipsometric measurements lead to retardation of the incident field. This provides excitation of modes prohibited at normal incidence by symmetry of SRRs. We also suggest that the great field enhancement at the resonant frequencies enables surface enhanced infrared spectroscopic ellipsometry, while the steep slopes in phase spectra at the resonances improve sensitivity of the ellipsometric response to the different factors in surrounding media.

Keywords: plasmon polariton, fishnet nanostructures, ellipsometry, nanophotonics, plasmonic resonances

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Списак публикација:

- 1) Ralević U., Lazarević N., Baum A., Eiter H.-M., Hackl R., Giraldo-Gallo P., Fisher I. R., Petrović C., Gajić R., Popović Z. V.: *Charge density wave modulation and gap measurements in CeTe₃*, Phys. Rev. B, Vol 94, No 16, 2016, pp. 165132-1-165132-9, (DOI: 10.1103/PhysRevB.94.165132, IF: 3.718, ISSN:2469-9950)
- 2) Kilanski L., Górska M., Ślawska-Waniewska A., Lewińska S., Szymczak R., Dynowska E., Podgórní A., Dobrowolski W., Ralević U., Gajić R.: *High temperature magnetic order in Zn_{1-x}Mn_xSnSb₂+MnSb nanocomposite ferromagnetic semiconductors* J. Phys. Condens. Matter, Vol 28, No. 33, 2016, pp. 336004 -1-336004 -10 (DOI:10.1088/0953-8984/28/33/336004, IF: 2.209, ISSN: 0953-8984)
- 3) Gilić M., Petrović M., Kostić R., Stojanović D., Barudžija T., Mitrić M., Romčević N., Ralević U., Trajić J., Romčević M., Yahia I. S.: *Structural and*

optical properties of CuSe₂ nanocrystals formed in thin solid Cu-Se film, Infrared Phys. Technol., Vol 76, No., 2016, 276–284 (DOI: 10.1016/j.infrared.2016.03.008, IF: 1.588, ISSN: 1350-4495).

- 4) Ralević U., Isić G., Vasić B., Gvoždić D., Gajić R.: *Role of waveguide geometry in graphene-based electro-absorptive optical modulators*, J. Phys. D: Appl. Phys., Vol 48, No 35, 2015, pp. 355102-1 - 355102-9 (DOI: 10.1088/0022-3727/48/35/355102, IF: 2.772, ISSN: 0022-3727).
- 5) Matković A., Chhikara M., Milićević M., Ralević U., Vasić B., Jovanović Dj., Belić M. R., Bratina G., Gajić R.: *Influence of a gold substrate on the optical properties of graphene*, J. Appl. Phys., Vol 117, No 1, 2015, pp. 015305-1 - 015305-9 (DOI: 10.1063/1.4905242, IF: 2.101, ISSN: 0021-8979).
- 6) Ralević U., Isić G., Vasić B., Gajić R.: *Modulating light with graphene embedded into an optical waveguide*, J. Phys. D: Appl. Phys., Vol 47, No 33, 2014, pp. 335101-1 – 335101-9 (DOI: 10.1088/0022-3727/47/33/335101, IF: 2.721, ISSN: 0022-3727).
- 7) Beltaos A., Kovačević A. G., Matković A., Ralević U., Savić-Šević S., Jovanović Dj., Jelenković B. M., Gajić R.: *Femtosecond laser induced periodic surface structures on multi-layer graphene*, J. Appl. Phys., Vol 116, No 20, 2014, pp. 204306-1 – 204306-6 (DOI: 10.1063/1.4902950, IF: 2.183, ISSN: 0021-8979).
- 8) Beltaos A., Kovačević A. G., Matković A., Ralević U., Jovanović Dj., Jelenković B., Gajić R.: *Damage effects on multi-layer graphene from femtosecond laser interaction*, Phys. Scripta, Vol 2014, No T162, 2014, pp. 014015-1 – 014015-5 (DOI: 10.1088/0031-8949/2014/T162/014015, IF: 1.126, ISSN: 0031-8949).
- 9) Vasić B., Kratzer M., Matković A., Nevosad A., Ralević U., Jovanović Dj., Ganser C., Teichert C., Gajić R.: *Atomic force microscopy based manipulation of graphene using dynamic plowing lithography*, Nanotechnology, Vol 24, No 1, 2013, pp. 015303-1 – 015303-9 (DOI: 10.1088/0957-4484/24/1/015303, IF: 3.672, ISSN: 0957-4484).
- 10) Matković A., Ralević U., Chhikara M., Jakovljević M. M., Jovanović Dj., Bratina G., Gajić R.: *Influence of transfer residue on the optical properties of chemical vapor deposited graphene investigated through spectroscopic ellipsometry*, J. Appl. Phys., Vol 114, No 9, 2013, pp. 093505-1 – 093505-5 (DOI: 10.1063/1.4819967, IF: 2.185, ISSN: 0021-8979).

- 11) Stojanović D., Matković A., Aškrabić S., Beltaos A., Ralević U., Jovanović Dj., Bajuk-Bogdanović D., Holclajtner-Antunović I., Gajić R.: *Raman spectroscopy of graphene: doping and mapping*. Phys. Scripta, Vol 2013, No T157, 2013, pp. 014010-1 – 014010-4 (DOI: 10.1088/0031-8949/2013/T157/014010, IF: 1.296, ISSN: 0031-8949).
- 12) Kratzer M., Klima S., Teichert C., Vasić B., Matković A., Ralević U., Gajić R.: *Temperature dependent growth morphologies of parahexaphenyl on SiO₂ supported exfoliated graphene*. J. Vac. Sci. Technol. B, Vol 31, No 4, 2013, pp. 04D114-1 – 04D114-7 (DOI: 10.1116/1.4813895, IF: 1.358, ISSN: 1071-1023).
- 13) Matković A., Beltaos A., Milićević M., Ralević U., Vasić B., Jovanović Dj., Gajić R., *Spectroscopic imaging ellipsometry and Fano resonance modeling of graphene*: J. Appl. Phys., Vol 112, No 12, 2012, pp. 123523-1 – 123523-6 (DOI: 10.1063/1.4771875, IF: 2.210, ISSN: 0021-8979).
- 14) Matković A., Ralević U., Isić G., Jakovljević M. M., Vasić B., Milošević I., Marković D., Gajić R.: *Spectroscopic ellipsometry and the Fano resonance modeling of graphene optical parameters*. Phys. Scripta. Vol 2012, No T149, 2012, pp. 014069-1 – 014069-3 (DOI: 10.1088/0031-8949/2012/T149/014069, IF: 1.032, ISSN: 0031-8949).

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- 9) Учешће на пројекту билатералне сарадње са Републиком Белорусијом број 451-03-00293/02 под називом "Silver nanostructures covered by graphene as improved SERS substrates" (2016.-2017.).
- 10) Учешће на пројекту билатералне сарадње са Републиком Хрватском под називом "Large area plasmonic structures for chemical and biosensing" (2016.-2017.).
- 11) Учешће на пројекту билатералне сарадње са Црном Гором број 451-03-01414/2016-09/2 под називом "Површином подстакнута Раманова спектроскопија као метода праћења концентрације неорганских нутријената у морској води" (2016-2018)

8. Степен реализације плана и програма рада на пројекту (образложение):

Својим ангажовањем на пројекту ОИ171005, докторанд Урош Ралевић дао је видан допринос остваривању зацртаних циљева пројекта.

9. Планови и предлози за даље ангажовање докторанта:

- а) наставити/продужити ангажовање Да
- б) не наставити/прекинути (образложите у вези са оценом датом у оквиру тачке 10) овог извештаја):
- в) остало

10. Изнесите своје предлоге за побољшање услова и резултата рада докторанта чији сте ментор:

Докторанд Урош Ралевић ради у групи др Радоша Гајића, те се побољшање услова за његов рад поклапа са побољшањем услова рада целе групе и мањом своди на повећавање количине материјалних средстава за куповину опреме за рад (лабораторијска опрема, унапређивање компјутера) и за посету иностраним колегама и присуствовање научним скуповима у иностранству.

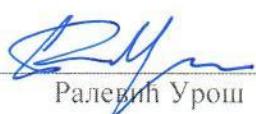
У прилогу овог извештаја достављам документацију која чини његов
ОБАВЕЗНИ саставни део:

- 1)** Потврде са факултета о реализованим обавезама на докторским студијама (заокружити прилог а-в који се доставља)
 - о последњем овереном и уписаном семестру,
 - б) о положеним испитима и укупном просечном оценом на докторским студијама, или
 - потврду факултета о пријављеној/ одобреној теми доктората и реализацији.
- 2)** оверену копију радне књижице (од 1-7 стране);
- 3)** копија М-А обрасца (Потврда о поднетој пријави, промени, одјави на обавезно социјално осигурање).

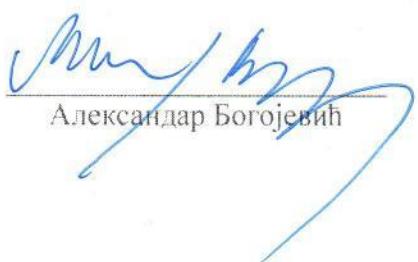
Датум 7.2.2011.

Докторанд

Ментор

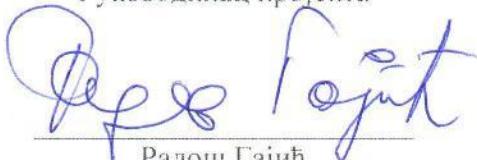

Ралевић Урош

Декан/Директор


Александар Богојевић



Руководилац пројекта


Радош Гајић

Република Србија
МИНИСТАРСТВО ПРОСВЕТЕ,
НАУКЕ И ТЕХНОЛОШКОГ РАЗВОЈА
БЕОГРАД
Немањина 22-26

БЕЛАНСИЈА
БУЏЕТУЈУЋИ ОДЛУКУ
од 01.01.2018
24.01.2018. 23.01.2018.

**ИЗВЕШТАЈ РУКОВОДИОЦА
О РАДУ - ИСТРАЖИВАЧА ДОКТОРАНТА
укљученог на пројекат Министарства**

I. ОПШТИ ПОДАЦИ

1. Име и презиме докторанта Урош Ралевић
2. Институт - факултет (НИО запослења) Институт за Физику
3. Ментор
 - име и презиме Горан Исић
 - звање Научни сарадник
 - (НИО запослења ментора) Институт за Физику
4. Ментор овог докторанта је од 01.01.2014.
5. Пројекат на коме је докторант ангажован
 - назив пројекта Физика уређених наноструктура и нових материјала у фотоници
 - евиденциони број пројекта 171005

II. АНГАЖОВАЊЕ ДОКТОРАНТА – ИСТРАЖИВАЧА ДОКТОРАНТА

6. Врста ангажовања докторанта у оквиру научноистраживачког рада (написати конкретно шта је радио и да ли има публиковане радове/где и повезаност послова са докторатом):
Урош Ралевић ангажован је на:

- фабрикацији узорака графена и молибден дисулфида методом микромеханичке ексфолијације (публикације 9 и 12),
- карактеризацији фабрикованих узорака графена и молибден дисулфида помоћу микроскопије на бази атомских сила, микроскопије на бази електростатичких сила, Келвинове скенирајуће микроскопије, Раманове спектрскопије (публикације 5, 7, 8, 10, 11 и 13),

- проучавању система плазмонских наночестица и тијацијанинске боје експерименталним методама микроскопије на бази атомских сила и површином подстакнуте Раманове спектроскопије и одговарајућим нумеричким методама (публикација 15),
- проучавању интеракције између плазмонских наночестица и дводимензионалних материјала графена и молибден дисулфида експерименталним методама површином подстакнуте Раманове спектроскопије и микроскопије на бази атомских сила, и одговарајућим нумеричким методама (публикација је у фази припреме),
- крактеризацији танких филмова експерименталним методама микроцкопије на бази атомских сила и микроскопије на бази магнетних сила (публикације 2 и 3),
- проучавању таласа густине наелектрисања у телуридима ретких земаља експерименталном методом скенирајуће тунелске микроскопије (публикација 1),
- проучавању оптичких направа на бази графена одговарајућим нумеричким методама (публикације 4 и 6).

Поред наведених активности везаних за израду докторске дисертације, Урош Ралевић радио је на формирању оптичких модела за тумачење елипсометарских мерења (публикација 14).

Урош Ралевић одбранио је докторску дисертацију под називом "Наноскопија и примене дводимензионалних и квази дводимензионалних система" 04.09.2017. године на Електротехничком факултету у Београду.

Списак публикација:

- 1) Ralević U., Lazarević N., Baum A., Eiter H.-M., Hackl R., Giraldo-Gallo P., Fisher I. R., Petrović C., Gajić R., Popović Z. V.: *Charge density wave modulation and gap measurements in CeTe₃*, Phys. Rev. B, Vol 94, No 16, 2016, pp. 165132-1-165132-9, (DOI: 10.1103/PhysRevB.94.165132, IF: 3.718, ISSN:2469-9950)
- 2) Kilanski L., Górska M., Ślawska-Waniewska A., Lewińska S., Szymczak R., Dynowska E., Podgórní A., Dobrowolski W., Ralević U., Gajić R.: *High temperature magnetic order in Zn_{1-x}Mn_xSnS₂+MnSb nanocomposite ferromagnetic semiconductors* J. Phys. Condens. Matter, Vol 28, No. 33, 2016, pp. 336004 -1-336004 -10 (DOI:10.1088/0953-8984/28/33/336004, IF: 2.209, ISSN: 0953-8984)

- 3) Gilić M., Petrović M., Kostić R., Stojanović D., Barudžija T., Mitrić M., Romčević N., Ralević U., Trajić J., Romčević M., Yahia I. S.: *Structural and optical properties of CuSe₂ nanocrystals formed in thin solid Cu-Se film*, Infrared Phys. Technol., Vol 76, No-, 2016, 276–284 (DOI: 10.1016/j.infrared.2016.03.008, IF: 1.588, ISSN: 1350-4495).
- 4) Ralević U., Isić G., Vasić B., Gvozdić D., Gajić R.: *Role of waveguide geometry in graphene-based electro-absorptive optical modulators*, J. Phys. D: Appl. Phys., Vol 48, No 35, 2015, pp. 355102-1 - 355102-9 (DOI: 10.1088/0022-3727/48/35/355102, IF: 2.772, ISSN: 0022-3727).
- 5) Matković A., Chhikara M., Milićević M., Ralević U., Vasić B., Jovanović Dj., Belić M. R., Bratina G., Gajić R.: *Influence of a gold substrate on the optical properties of graphene*, J. Appl. Phys., Vol 117, No 1, 2015, pp. 015305-1 - 015305-9 (DOI: 10.1063/1.4905242, IF: 2.101, ISSN: 0021-8979).
- 6) Ralević U., Isić G., Vasić B., Gajić R.: *Modulating light with graphene embedded into an optical waveguide*, J. Phys. D: Appl. Phys., Vol 47, No 33, 2014, pp. 335101-1 – 335101-9 (DOI: 10.1088/0022-3727/47/33/335101, IF: 2.721, ISSN: 0022-3727).
- 7) Beltaos A., Kovačević A. G., Matković A., Ralević U., Savić-Šević S., Jovanović Dj., Jelenković B. M., Gajić R.: *Femtosecond laser induced periodic surface structures on multi-layer graphene*, J. Appl. Phys., Vol 116, No 20, 2014, pp. 204306-1 – 204306-6 (DOI: 10.1063/1.4902950, IF: 2.183, ISSN: 0021-8979).
- 8) Beltaos A., Kovačević A. G., Matković A., Ralević U., Jovanović Dj., Jelenković B., Gajić R.: *Damage effects on multi-layer graphene from femtosecond laser interaction*, Phys. Scripta, Vol 2014, No T162, 2014, pp. 014015-1 – 014015-5 (DOI: 10.1088/0031-8949/2014/T162/014015, IF: 1.126, ISSN: 0031-8949).
- 9) Vasić B., Kratzer M., Matković A., Nevosad A., Ralević U., Jovanović Dj., Ganser C., Teichert C., Gajić R.: *Atomic force microscopy based manipulation of graphene using dynamic plowing lithography*, Nanotechnology, Vol 24, No 1, 2013, pp. 015303-1 – 015303-9 (DOI: 10.1088/0957-4484/24/1/015303, IF: 3.672, ISSN: 0957-4484).
- 10) Matković A., Ralević U., Chhikara M., Jakovljević M. M., Jovanović Dj., Bratina G., Gajić R.: *Influence of transfer residue on the optical properties of chemical vapor deposited graphene investigated through spectroscopic ellipsometry*, J. Appl. Phys., Vol 114, No 9, 2013, pp. 093505-1 – 093505-5 (DOI: 10.1063/1.4819967, IF: 2.185, ISSN: 0021-8979).

- 11) Stojanović D., Matković A., Aškrabić S., Beltaos A., Ralević U., Jovanović Dj., Bajuk-Bogdanović D., Holclajtner-Antunović I., Gajić R.: *Raman spectroscopy of graphene: doping and mapping*, Phys. Scripta, Vol 2013, No T157, 2013, pp. 014010-1 – 014010-4 (DOI: 10.1088/0031-8949/2013/T157/014010, IF: 1.296, ISSN: 0031-8949).
- 12) Kratzer M., Klima S., Teichert C., Vasić B., Matković A., Ralević U., Gajić R.: *Temperature dependent growth morphologies of parahexaphenyl on SiO₂ supported exfoliated graphene*, J. Vac. Sci. Technol. B, Vol 31, No 4, 2013, pp. 04D114-1 – 04D114-7 (DOI: 10.1116/1.4813895, IF: 1.358, ISSN: 1071-1023).
- 13) Matković A., Beltaos A., Miličević M., Ralević U., Vasić B., Jovanović Dj., Gajić R., *Spectroscopic imaging ellipsometry and Fano resonance modeling of graphene*, J. Appl. Phys., Vol 112, No 12, 2012, pp. 123523-1 – 123523-6 (DOI: 10.1063/1.4771875, IF: 2.210, ISSN: 0021-8979).
- 14) Matković A., Ralević U., Isić G., Jakovljević M. M., Vasić B., Milošević I., Marković D., Gajić R.: *Spectroscopic ellipsometry and the Fano resonance modeling of graphene optical parameters*, Phys. Scripta, Vol 2012, No T149, 2012, pp. 014069-1 – 014069-3 (DOI: 10.1088/0031-8949/2012/T149/014069, IF: 1.032, ISSN: 0031-8949).
- 15) Ralević U., Isić G., Vasić Anicijević D., Laban B., Bogdanović U., Lazović V.M., Vodnik V., Gajić R.: *Nanospectroscopy of thiacyanine dye molecules adsorbed on silver nanoparticle clusters*, Appl. Surf. Sci., Vol 434, 2018, pp. 540-548 (DOI: 10.1016/j.apsusc.2017.10.148, IF: 3.387, ISSN: 0169-4332)

7. Да ли је докторант био ангажован на другим пословима у тој НИО:

а) не

б) да (навести на којим):

- 1) Учешће на Европском FP7 пројекту под називом "Large area fabrication of 3D negative index materials by nanoimprint lithography-NIM_NIL" (2009.-2012.)
- 2) Учешће на пројекту билатералне сарадње са Краљевином Шпанијом под називом "Инфрацрвена спектроскопија графенских наноструктура" (2012.-2013.).
- 3) Учешће на COST акцији TD 1002 под називом "AFM4NanoMed&Bio" (2010.-2014.).
- 4) Учешће (заменик у Управном одбору - енг. Management Committee) на COST акцији MP 1302 под називом "NanoSpectroscopy" (2013.-2017.).

- 5) Учешће на COST акцији IC 1208 под називом "Integrating devices and materials: a challenge for new instrumentation" (2013.-2017.).
- 6) Учешће на Grande Rilevanza пројекту билатералне сарадње са Републиком Италијом под називом "Liquid-crystal-tunable nanoplasmonic structures based on periodically patterned metallic films" (2014.-2015.).
- 7) Учешће на пројекту билатералне сарадње са Савезном Републиком Немачком број 451-03-01766/2014-09/10 под називом "Femtosecond surface plasmon dynamics at the nanoscale" (2015.-2016.).
- 8) Учешће на пројекту билатералне сарадње са Републиком Аустријом број 451-03-01039/2015-09/40 под називом "Дводимензионални материјали као подлога за раст органских полупроводника" (2016.-2017.).
- 9) Учешће на пројекту билатералне сарадње са Републиком Белорусијом број 451-03-00293/02 под називом "Silver nanostructures covered by graphene as improved SERS substrates" (2016.-2017.).
- 10) Учешће на пројекту билатералне сарадње са Републиком Хрватском под називом "Large area plasmonic structures for chemical and biosensing" (2016.-2017.).
- 11) Учешће на пројекту билатералне сарадње са Црном Гором број 451-03-01414/2016-09/2 под називом "Површином подстакнута Раманова спектроскопија као метода праћења концентрације неорганских нутријената у морској води" (2016-2018).
- 12) Учешће (заменик у Управном одбору - енг. Management Committee) на COST акцији CA16215 под називом "European network for the promotion of portable, affordable and simple analytical platforms" (2017.-2021.).

8. Степен реализације плана и програма рада на пројекту (образложение):

Својим ангажовањем на пројекту ОИ171005, Урош Ралевић дао је видан допринос остваривању зацртаних циљева пројекта.

9. Планови и предлози за даље ангажовање докторанта:

- a)** наставити/продужити ангажовање Да
- б)** не наставити/прекинути (образложите у вези са оценом датом у оквиру тачке 10) овог извештаја:
- в)** остало

10. Изнесите своје предлоге за побољшање услова и резултата рада докторанта чији сте ментор:

Урош Ралевић ради у групи др Радоша Гајића, те се побољшање услова за његов рад поклапа са побољшањем услова рада целе групе и мањом своди на повећавање количине материјалних средстава за куповину опреме за рад (лабораториска

опрема, унапређивање компјутера) и за посету иностраним колегама и присуствоање научним скуповима у иностранству.

**У прилогу овог извештаја достављам документацију која чини његов
ОБАВЕЗНИ саставни део:**

- 1) Потврде са факултета о реализованим обавезама на докторским студијама (заокружити прилог а-в који се доставља)
 - а) о последњем овереном и уписаном семестру,
 - б) о положеним испитима и укупном просечном оценом на докторским студијама, или
 - в) потврду факултета о пријављеној/ одобреној теми доктората и реализацији.
- 2) оверену копију радне књижице (од 1-7 стране);
- 3) копија М-А обрасца (Потврда о поднетој пријави, промени, одјави на обавезно социјално осигурање).

Датум 24. 1. 2018.

Докторанд

Ралевић Урош

Декан/Директор

Александар Богојевић

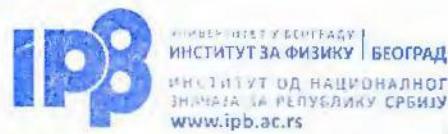
Ментор

Руководилац пројекта

Радош Гајић

Прилог:
Докази руковођења пројектима

Фонд за науку Републике Србије
Бр. 1533/2020
08.07.2020. год.
БЕОГРАД, Немањина бр. 22-26



Број 0801-583/1

Датум 16.07.2020.

У оквиру Програма за изврсне пројекте младих истраживача Фонда за науку Републике Србије на који је сагласност дала Влада РС решењем 05 број 660-02-5891/2019 од 13. јуна 2019. године („Службени гласник РС“, број 42/19), који се реализује у складу са Актом о циљевима, начину реализације и условима финансирања пројекта у оквиру Програма за изврсне пројекте младих истраживача број УО- 21-1/2019 од 04.06. 2019. године, а по јавном позиву Фонда за науку Републике Србије од 21. јуна 2019. године за пријаву научноистраживачких пројекта у оквиру Програма за изврсне пројекте младих истраживача – ПРОМИС и одлуке Управног одбора Фонда за науку број УО - 24/2020 од 27.02.2020. године о усвајању коначне листе Пројекта којима се одобрава за финансирање средствима Фонда за науку по Програму ПРОМИС (у даљем тексту: Одлука УО), закључује се

УГОВОР О ФИНАНСИРАЊУ

реализације научноистраживачког Пројекта под називом **NANOMETER THIN PHOTOVOLTAICS BASED ON PLASMONICALLY ENHANCED VAN DER WAALS HETEROSTRUCTURES,**

акроним PV-Waals, евидентиони број 6062710

у оквиру Програма за изврсне пројекте младих истраживача – ПРОМИС

Фонда за науку Републике Србије

између следећих уговорних страна:

1. **ФОНДА ЗА НАУКУ РЕПУБЛИКЕ СРБИЈЕ**, са регистрованим седиштем у Београду, ул. Немањина 22-26, и адресом обављања делатности у Ул. Масарикова 5/XIX, Београд, матични број 17921410, ПИБ 111343775, број рачуна КЈС 840-670723-30, кога заступа др Милица Ђурић-Јовићић, в.д. директора (у даљем тексту: **Фонд за науку**),

са једне стране,

и

2. Реализатора истраживања/корисника средстава одобрених за финансирање Пројекта (у даљем тексту свако од наведних појединачно означен као **Корисник средстава**, а сви заједнички означени као **Корисници средстава**):

2.1. Акредитована научноистраживачка организација – НИО Институт за физику у Београду, Универзитет у Београду, са седиштем на адреси Прегревица 118, 11080 Београд, ПИБ: 100105980, матични број: 07018029, коју заступа др Александар Богојевић, директор, која је носилац реализације Пројекта (у даљем тексту: **Носилац Пројекта**);

3. **Горан Исић**, запослен у НИО Институт за физику у Београду, Универзитет у Београду Носиоцу Пројекта (у даљем тексту: **Руководилац Пројекта**),

са друге стране.





Република Србија
МИНИСТАРСТВО ПРОСВЕТЕ,
НАУКЕ И ТЕХНОЛОШКОГ
РАЗВОЈА
Број: 451-03-003036/2017-09/09
Датум: 22.12.2017.
Београд, Немањина 22-26

Институт за физику
- Др Горан Исић -

Прегревица 118
11080
Земун

Поштовани др Исић,

Обавештавамо Вас да је на основу позитивних експертских оцена рецензената Републике Србије и Републике Белорусије, а у складу са расположивим финансијским могућностима, на Осмом заседању Мешовите српско-белоруске комисије за научно-техничку сарадњу, одржаном 19.-20. децембра 2017. године у Минску, усвојена листа за финансирање пројекта у двогодишњем периоду са почетком реализације од 1. јануара 2018. године.

Ваш пројекат „*Филмови металних наночестица као нови CEPC сензори*“ одобрен је за финансирање у оквиру Програма билатералне научне и технолошке сарадње између Републике Србије и Републике Белорусије за 2018-19. год.

Министарство просвете, науке и технолошког развоја Републике Србије ће суфинансирати путне трошкове истраживача из Србије при одласку у Белорусију, као и трошкове боравка истраживача из Белорусије у максималном износу динарске противвредности од 2000 (две хиљаде) евра у току годину дана

Захтеви за рефундацију трошкова путовања српских истраживача, односно трошкова боравка белоруских истраживача, достављају се на обрасцу који можете преузети на интернет адреси Министарства, у огранку билатерале, уз одговарајућу пратећу документацију.

Руководиоци одобрених пројекта за финансирање, дужни су да доставе годишњи и завршни извештај о реализацији пројекта, у року од 15 дана након завршетка пројектне године, односно након завршетка пројекта, у форми која се

такође, налази на интернет адреси Министарства. Саставни део извештаја су и прилози који садрже резултате билатералног пројекта: листу учесника заједничке радионице и агенду; радну верзију апстракта пројекта са листом учесника, називом пројекта и називом потенцијалног програма или јавног позива на који се аплицира са овом темом; радну верзију или копију објављеног рада у међународном часопису.

Информација о свим одобреним пројектима објављена је на интернет страници Министарства просвете, науке и технолошког развоја.

Истовремено бих желео да Вам честитам на одобреном пројекту и пожелим успешну реализацију пројектних активности.

С поштовањем,

МИНИСТАР





Република Србија
МИНИСТАРСТВО ПРОСВЕТЕ,
НАУКЕ И ТЕХНОЛОШКОГ
РАЗВОЈА
Број: 451-03-01413/2016-09/2
Датум: 09.01.2017.
Београд, Немањина 22-26

Институт за физику
- Горан Исић -

Прегревица 118
11 080 Београд

Поштовани господине Исићу,

Обавештавамо Вас да је у оквиру Програма билатералне научне и технолошке сарадње између Републике Србије и Немачке службе за академску размену (ДААД), а на основу спроведених процедура оцене пројектата у обе државе, усвојена листа за финансирање пројектата у двогодишњем периоду са почетком реализације од 1. јануара 2017. године.

Са задовољством Вас обавештавамо да је Ваш пројекат „Резонантне наноструктуре за контролу спонтане емисије“ одобрен за финансирање.

Желимо да напоменемо да реализација пројекта треба да допринесе даљем унапређењу сарадње, омогући учешће младих истраживача и помогне генерисању новог пројектног предлога којим би се конкурисало у другим програмима међународне сарадње (нпр. Хоризонт 2020).

Обе стране финансираће пројекат према условима наведеним у Конкурсу, тако да страна која шаље покрива трошкове превоза истраживача између две инсититуције, а страна која прима истраживаче, покрива трошкове њиховог боравка и локалног превоза који су неопходни за реализацију сарадње на одобреном пројекту.

Захтеви за рефундацију трошкова путовања српских истраживача, односно трошкова боравка немачких истраживача, достављају се на обрасцу који можете преузети на интернет адреси Министарства, у огранку међународна научна сарадња, уз одговарајућу пратећу документацију.

Руководиоци одобрених пројекта за финансирање, дужни су да доставе годишњи и завршни извештај о реализацији пројекта, у року од 15 дана након завршетка пројектне године, односно након завршетка пројекта, у форми која се такође, налази на интернет адреси Министарства. Саставни део извештаја су и прилози који садрже резултате билатералног пројекта: реализације посете, учешће младих истраживача, радна верзија или копија објављеног рада у међународном часопису, назив пројекта и назив потенцијалног програма или јавног позива на који се конкурише у смислу наставка сарадње, агенда и листа учесника заједничких радионица.

Информација о свим одобреним пројектима објављена је на интернет страници Министарства просвете, науке и технолошког развоја.

Истовремено бих желео да Вам честитам на одобреном пројекту и пожелим успешну реализацију пројектних активности.

С поштовањем,





Република Србија
МИНИСТАРСТВО ПРОСВЕТЕ,
НАУКЕ И ТЕХНОЛОШКОГ

РАЗВОЈА

Број: 451-03-01414/2016-09/2

Датум: 18.10.2016.

Београд, Немањина 22-26

Институт за физику
- Др Горан Исић -

Прегревица 118
11 080 Београд

Поштовани господине Исићу,

Обавештавамо Вас да је у оквиру Програма билатералне научне и технолошке сарадње између Министарства просвете, науке и технолошког развоја Републике Србије и Министарства науке Црне Горе, а на основу спроведених процедура оцене пројекта у обе државе, усвојена листа за финансирање пројекта у двогодишњем периоду са почетком реализације од 15. октобра 2016. године.

Са задовољством Вас обавештавамо да је Ваш пројекат „*Површином подстакнута Раманова спектроскопија као метода праћења концентрације неорганских нутријената у морској води*“ одобрен за финансирање.

Желимо да напоменемо да реализација пројекта треба да допринесе даљем унапређењу сарадње, омогући учешће младих истраживача и помогне генерисању новог пројектног предлога којим би се конкурисало у другим програмима међународне сарадње (нпр. Хоризонт 2020).

Обе стране финансираје пројекте према сопственом моделу, у износу од 700,00 евра по пројектној години, у противвредности националне валуте, тако да страна која шаље покрива трошкове превоза истраживача између две државе, а страна која прима истраживаче, покрива њихове трошкове боравка и локалног превоза који су неопходни за реализацију сарадње на одобреном пројекту.

Захтеви за рефундацију трошкова путовања српских истраживача, односно трошкова боравка црногорских истраживача, достављају се на обрасцу који можете преузети на интернет адреси Министарства, у огранку међународна научна сарадња, уз одговарајућу пратећу документацију.

Руководиоци одобрених пројеката дужни су да доставе годишњи и завршни извештај о реализацији пројекта у року од 15 дана након завршетка пројектне године, односно након завршетка пројекта, у форми која се такође налази на интернет адреси Министарства. Саставни део извештаја су и прилози који садрже резултате билатералног пројекта: реализоване посете, учешће младих истраживача, радна верзија или копија објављеног рада у међународном часопису, назив пројекта и назив потенцијалног програма или јавног позива на који се аплицира у смислу започете сарадње, агенда и листа учесника заједничких радионица.

Информација о свим одобреним пројектима објављена је на интернет страници Министарства просвете, науке и технолошког развоја.

Истовремено бих желео да Вам честитам на одобреном пројекту и пожелим успешну реализацију пројектних активности.

С поштовањем,



Прилог:

Докази рецензирања (научни пројекти, часописи, уџбеник)



Subject ERA.Net RUS Plus "S&T" - payment of your expertise
From ERA.Net RUS Plus <eranetrus-plus@dlr.de>
To <isicg@ipb.ac.rs>
Reply-To <eranetrus-plus@dlr.de>
Date 2017-11-07 12:33

-
- Compensation 2017 ST.pdf (~394 KB)

Dear Goran Isic

Thank you again for your expertise in the Joint Call "ERA.Net RUS Plus for S&T Projects 2017".

We would now like to transfer your honorarium to your bank account. According to my list you did 2 expertise and will receive 100,00 € for your work (50 €/expertise). In case you found a discrepancy please contact me. In order to remit your honorarium we prepared a money transfer form (attached) which you should please fill out and return to eranetrus-plus@dlr.de.

Please carefully fill out this document with your bank information and do not fill it out by hand as we won't accept handwriting in this form (too many misinterpretations). In case the remittance is returned due to wrong information from your side the bank charges will be invoiced. Please save this document on your harddisc first so you might save it with your information.

In order to sign the document either press the red stripe button in the "signature-field" or insert your scanned signature. If this doesn't work (although it should) please print, sign and scan this document.

For any questions which might arise, kindly contact me.

Best regards,

Daniela Altenhoefer

Daniela Altenhoefer

Deutsches Zentrum für Luft- und Raumfahrt e. V. (DLR)
German Aerospace Center
DLR Project Management Agency | European and International Cooperation | International Bureau

Phone: +49 228 3821-1509
Fax: +49 228 3821-1408
daniela.altenhoefer@dlr.de

DLR-PT.de | internationales-buero.de



Subject Optics Letters XXXXXX review received
From <olmss@osa.org>
Sender <olmss@osa.org>
To <isicg@ipb.ac.rs>
Date 2021-08-15 20:01

Manuscript ID: XXXXXX Type: letter
Title: XXXXXX
Author: XXXXXX

Dear Goran Isic,

Your comments and recommendation to Topical Editor Jing Feng for this manuscript have been received.

Thank you for your efforts in helping to maintain OSA's high standards of publication.

We hope you will continue to support Optics Letters as a reviewer. If you have not already done so, please visit the reviewer web site located at <https://prism.osapublishing.org> to update your research interests and the OCIS codes that best designate your areas of expertise. This allows us to better identify the new submissions that will be of most interest to you.

Please also let us know if you wish for us to send a review acknowledgment letter to your employer.

Sincerely,
Optics Letters Manuscript Office
olmss@osa.org

=====

Review Confirmation

=====

Subject Thank you for reviewing for Nanotechnology -
NANO-XXXXXX.R1

From Nanotechnology <onbehalfof@manuscriptcentral.com>

To <isicg@ipb.ac.rs>

Reply-To <nano@ioppublishing.org>

Date 2022-02-21 08:23



Dear Dr Isic,

Re: "XXXXXX"
Article reference: NANO-XXXXXX.R1

Thank you for your report on this Paper, which is being considered by Nanotechnology.

We appreciate the time and effort that you have spent reviewing this manuscript and we are very grateful for your assistance.

We hope that we will be able to call upon you again to review future manuscripts.

Yours sincerely

On behalf of:
Nanotechnology
Editor-in-Chief: Professor R LaPierre
iopscience.org/nano | nano@ioppublishing.org | Impact Factor: 3.874 | Citescore: 5.8

Want to find out what is happening to your submission?

Track your article on:

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WeChat: <https://bit.ly/2L0M9uz>

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The details you submit in this survey will only be used for the purposes of improving our services. Rest assured, we will never sell or rent your personal data to third parties. For more information, please see our privacy policy at <http://ioppublishing.org/legal-statements/privacy-policy/>. The aggregated, anonymised results of our surveys may be shared with our publishing partners.

Letter reference: XXXXXX



Subject Thank you for reviewing for J. Phys. D: Appl. Phys. - JPhysD-XXXXXX
From Journal of Physics D: Applied Physics <onbehalfof@manuscriptcentral.com>
To <isicg@ipb.ac.rs>
Reply-To <jphysd@ioppublishing.org>
Date 2021-06-01 19:35

Dear Dr Isic,

Re: "XXXXXX" by XXXXXX Article reference: JPhysD-XXXXXX

Thank you for your report on this Paper, which is being considered by Journal of Physics D: Applied Physics.

We appreciate the time and effort that you have spent reviewing this manuscript and we are very grateful for your assistance.

We hope that we will be able to call upon you again to review future manuscripts.

Co-review: If you opted to complete this review as a 'co-review', please follow the steps via the following link to provide your co-reviewer with credit via Publons:
<https://publishingsupport.iopscience.iop.org/questions/co-review/>

Yours sincerely

On behalf of:

Journal of Physics D: Applied Physics

Editor-in-Chief: Huiyun Liu

iopscience.org/jphysd | jphysd@ioppublishing.org | twitter.com/JPhysD

Impact Factor: 3.169 | Citescore: 5.3

Want to find out what is happening to your submission? Track your article here:
<https://publishingsupport.iopscience.iop.org/track-my-article/>

ioppublishing.org | twitter.com/IOPPublishing

We are always looking for ways to improve our service. We would really appreciate it if you could take five minutes to complete a short survey (<https://forms.office.com/r/T26Bu71Wz5>) about your experience of refereeing an article for IOP Publishing. We would like to thank you in advance for your help.

The details you submit in this survey will only be used for the purposes of improving our services. Rest assured, we will never sell or rent your personal data to third parties. For more information, please see our privacy policy at <http://ioppublishing.org/legal-statements/privacy-policy/>. The aggregated, anonymised results of our surveys may be shared with our publishing partners.

Letter reference: XXXXXXXX



Subject Applied Optics XXXXXX review received
From <aomss@osa.org>
Sender <aomss@osa.org>
To <isicg@ipb.ac.rs>
Date 2020-01-08 20:35

Manuscript ID: XXXXXX Type: research article
Title: XXXXXX
Author: XXXXXX

Dear Goran Isic,

Your comments and recommendation to Topical Editor Jarkko Saarinen for this manuscript have been received.

Thank you for your efforts in helping to maintain OSA's high standards of publication.

We hope you will continue to support Applied Optics as a reviewer. If you have not already done so, please access <https://prism.osapublishing.org> to update your research interests and the OCIS codes that best designate your areas of expertise. This allows us to better identify the new submissions that will be of most interest to you.

Please also let us know if you wish for us to send a review acknowledgement letter to your employer.

Sincerely,
Applied Optics Manuscript Office
aomss@osa.org

=====

Review Confirmation

=====

...



Subject Thank you - let us know how we can improve the reviewing process
From Optical and Quantum Electronics (OQEL)
<em@editorialmanager.com>
Sender <em.oqel.0.66eba2.e70710d0@editorialmanager.com>
To Goran Isic <goran.isic@ipb.ac.rs>
Reply-To Optical and Quantum Electronics (OQEL)
<sarvagnan.subramanian@springer.com>
Date 2019-10-29 17:03

Dear Dr. Isic,

Thank you very much for your review of manuscript

OQEL-D-19-XXXXXX, "XXXXXX". We greatly appreciate your assistance.

With kind regards,

Journals Editorial Office

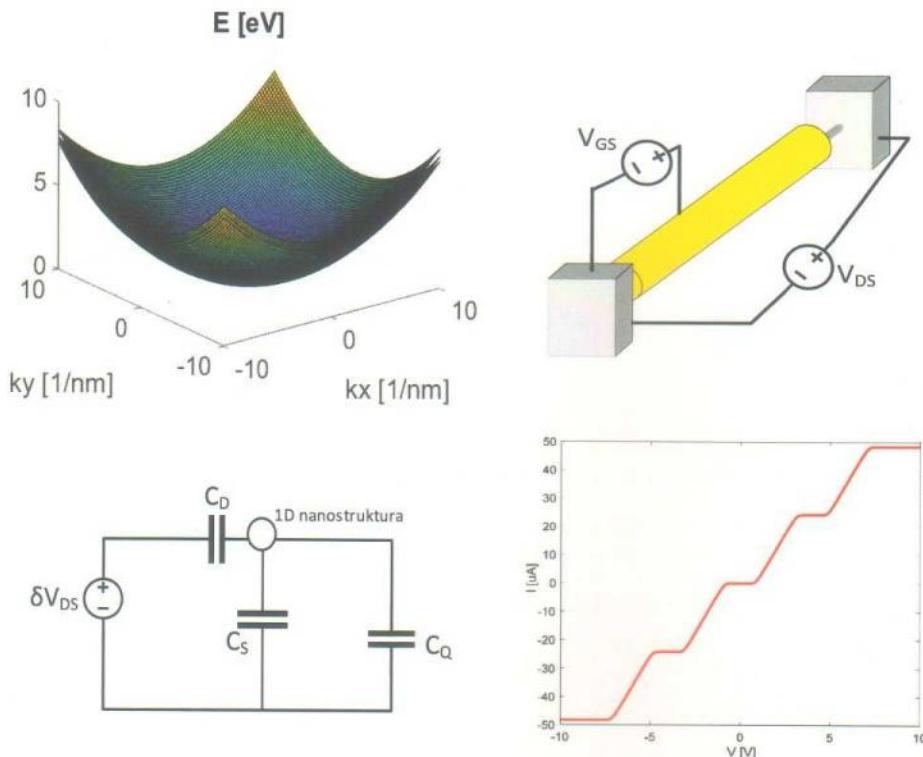
Springer

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Nataša Samardžić



NANOELEKTRONIKA

REŠENI ZADACI SA
RAČUNARSKIM VEŽBAMA

Univerzitet u Novom Sadu
Fakultet tehničkih nauka

Nataša Samardžić

NANOELEKTRONIKA

REŠENI ZADACI SA
RAČUNARSKIM VEŽBAMA

Novi Sad, 2022.

Edicija: „TEHNIČKE NAUKE - UDŽBENICI”

Naziv udžbenika: „NANOELEKTRONIKA: rešeni zadaci sa računarskim vežbama”

Autor: dr Nataša Samardžić, docent Fakulteta tehničkih nauka
Univerziteta u Novom Sadu

Recenzenti: dr Dalibor Sekulić, docent Fakulteta tehničkih nauka
Univerziteta u Novom Sadu
dr Goran Ivić, viši naučni saradnik Instituta za fiziku Beograd
Univerziteta u Beogradu

Izdavač: Fakultet tehničkih nauka, Univerzitet u Novom Sadu

Glavni i odgovorni urednik:
Prof. dr Srdan Kolaković, dekan Fakulteta tehničkih nauka, Univerzitet u Novom Sadu

Priprema i štampa: FTN - Grafički centar GRID, Trg Dositeja Obradovića 6, Novi Sad

Štampanje odobrio:
Savet za bibliotečku i izdavačku delatnost Fakulteta tehničkih nauka, Univerzitet u Novom Sadu

Predsednik Saveta za bibliotečku i izdavačku delatnost:
Prof. dr Stevan Stankovski, redovni profesor Fakulteta tehničkih nauka, Univerzitet u Novom Sadu

Autorska prava pripadaju izdavaču

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САМАРДЖИЋ, Наташа

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1. izd. - Novi Sad : Fakultet tehničkih nauka, 2022 (Novi Sad : Grafički centar
GRID). - 132 str. : ilustr. ; 24 cm. - (Edicija „Tehničke nauke – udžbenici“ ; br. 991)

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ISBN 978-86-6022-417-2

a) Nanoelektronika -- Задаци

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SADRŽAJ

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PREDGOVOR

Praktikum „Nanoelektronika–rešeni zadaci sa računarskim vežbama“ je namenjen studentima treće godine osnovnih akademskih studija na studijskom programu Energetika, elektronika i telekomunikacije na Fakultetu tehničkih nauka, Univerziteta u Novom Sadu, koji slušaju predmet „Mikro i nano elektronika“ za izvođenje auditornih i računarskih vežbi. Pomoći udžbenik može da se koristi i kao dopunska literatura na master akademском programu *Mikro i nano elektronika*, a takođe može poslužiti studentima srodnih struka koji su zainteresovani za oblast nanoelektronike.

Praktikum je koncipiran na bazi “*bottom-up*” pristupa za analizu i modelovanje elektronskog transporta u nanostrukturama. Navedeni pristup podrazumeva da se najpre razmatra kretanje elektrona u atomima i molekulima, a postepenim usložnjavanjem posmatranog sistema dolazi se do strujno-naponskih karakteristika savremenih nanoelektronskih komponenti. Razumevanje efekata prisutnih na nanoskali, prvenstveno u domenu uspostavljanja struje, napona, otpornosti, predstavlja fundamentalni koncept za analizu i projektovanje elektronskih uređaja novije generacije. Kao osnova za pripremu praktikuma korišćena je skripta Marc Baldo, „*Introduction to Nanoelectronics*“, literatura za uvodni kurs nanoelektronike na osnovnim akademskim studijama na Masačusetskom institutu za tehnologiju.

Pomoći udžbenik je podeljen na sedam poglavlja. Prva dva obuhvataju osnove kvantne mehanike, rešavanje Šredingerove jednačine za različite profile potencijala, uvodi se pojam gustine stanja u nanostrukturama u kojima je elektron konfiniran (0D, 1D i 2D sistemi) i matematički aparat za određivanje broja elektrona u nanometarskom provodniku. Treće poglavljje ilustruje jednostavan dvopristupni nanoelektronski uređaj sa provodnikom u formi 0D nanostrukture (molekul), raspored energetske nivoa nakon povezivanja kontakata kao i analitičku metodu za proračun jačine struje. Numerička metoda za dobijanje strujno- naponske karakteristike dvopristupnih nanoelektronskih uređaja sa 0D provodnikom prikazana je u četvrtom poglavljju, dok su dvopristupni uređaji sa nanožicom analizirani u petom poglavljju. Strujno-naponske karakteristike nanometarskih FET tranzistora različitog stepena složenosti provodnog kanala predstavljene su u poglavљu šest, sa akcentom na primenu analitičke metode na bazi kapacitivnih razdelnika za analizu režima rada tranzistora. Sedmo poglavlje sadrži odabранe MATLAB kodove za rešavanje zadataka.

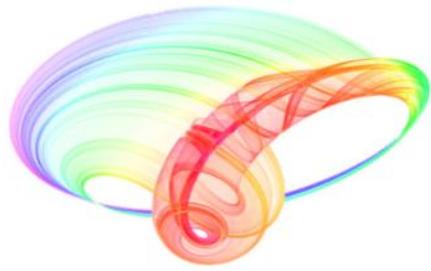
Posebnu zahvalnost dugujem recenzentima, dr Goranu Isiću i dr Daliboru Sekuliću, koji su svojim komentarima i predlozima značajno poboljšali kvalitet ovog udžbenika. Unapred se zahvaljujem i svim pažljivim čitaocima na ukazanim eventualnim propustima i predlozima za unapređenje narednog izdanja.

U Novom Sadu, januar 2022. godine

Nataša Samardžić

Прилог:

Докази чланства у програмским одборима научних конференција



VI International School and Conference on Photonics
28 August - 1 September 2017, Belgrade, Serbia

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with 3 joint events: **MP1402-HERALD**,
MP1406-MultiscaleSolar and
H2020-MSCA-RISE-2015 CARDIALLY workshop

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COST Action MP1402 - HERALD

Atomic layer deposition and related ultra-thin film processes for advanced devices

COST Action MP1406 - MultiscaleSolar

Multiscale in modelling and validation for solar photovoltaics

H2020-MSCA-RISE-2015 CARDIALLY workshop

Capturing and quantitative analysis of multi-scale multi-channel diagnostic data

NEWS!

October 30th 2017.

Deadline for manuscript submission in OQE is extended until November 6th (October 31st, October 15th)

October 14th 2017.

Deadline for manuscript submission in OQE is extended until October 31st (October 15th)

September 21st 2017.

New information about manuscript submission in OQE is posted

September 8th 2017.

Manuscript submission in OQE will be open on September 15th. Deadline for manuscript submission is October 15th

September 1st 2017.

Conference group photograph!

August 31st 2017.

Conference group photo:

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From left to right: Vladimir Veljić, Marko Nikolić, Danica Pavlović, Stanko Nikolić, Aleksandar Krmpot, Marina Lekić, Jelica Kurčanski, Nikola Kolarov

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Thursday 31.08.2017. at 16:00h, in front of SASA building

August 31st 2017.
Thursday timetable change:
Salasnick 10.40-11.10,
Pelster 11.10-11.40,
Adhikari 11.40-12.25,
discussion 12.25-12.35

August 28th 2017.
[Conference photos - Gallery!](#)

August 27th 2017.
Program for [MP1406-MultiscaleSolar](#)

August 23th 2017.
Programs for [MP1402-HERALD](#) and [CARDIALLY](#) workshop

August 17th 2017.
[Information about best poster prizes for students](#)

August 16th 2017.
[Booklet with detailed programme and useful information](#)

August 16th 2017.
[Social programme is updated](#)

August 15th 2017.
[Final timetable for Photonica 2017 is updated](#)

August 14th 2017.
[Live streaming from the Main hall will be provided](#)

August 8th 2017.
[New webpage on manuscript submission for OQE is published](#)

August 7th 2017.
[New webpage on upcoming conference posters is published](#)

August 7th 2017.
[Book of abstracts is published](#)

Announcement:
Registration form will be closed on Friday, 28.07.2017, at midnight Central European Time.

July 19th 2017.

[Updated list of speakers and lectures](#)

July 19th 2017.

[Tentative timetable is updated](#)

[Early registration deadline is extended until July 10th](#)

[2017!](#)

[Abstract submission deadline is extended until June 25th 2017!](#)

June 8th 2017.

[Tentative timetable](#)

May 30th 2017.

[Conference poster](#)

May 29th 2017.

[Abstract submission deadline is extended until June 15th 2017](#)

May 19th 2017.

[Second announcement](#)

May 10th 2017.

[Updated list of speakers and lectures](#)

May 5th 2017.

[Updated list of sponsors](#)

March 12th 2017.

[Abstract submission open](#)

March 12th 2017.

[Registration open](#)

March 12th 2017.

[First announcement](#)

Confirmed Plenary/Tutorial Speakers:

Antoine Weis, CH
Boris Chichkov, DE
Stojan Radic, US
Wieslaw Krolikowski, AU
Zeev Zalevsky, IL

Confirmed Keynote Speakers:

Jerker Widengren, SE
Kurt Hingerl, AT
Liam P. Barry, IE
Marko Kralj, HR
Milivoj Belic, QA
Wolfram Pernice, DE

Sadhan K. Adhikari, BR

Confirmed Invited Speakers:

Andrea Fratalocchi, SA
Axel Pelster, DE
Christian Teichert, AT
Christoph Affolderbach, CH
Dries van Oosten, NL
Fabio Baronio, IT
Frank Setzpfandt, DE
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Radan Slavik, UK
Robert Löw, DE
Zoe Amin-Akhlaghi, AT
Tanja Ducic, ES
Valdas Pasiskevicius, SE

Special Invited Speaker:

Adam Borzsonyi, HU

More information at
[Speakers](#).

Photonica15

V International School and
Conference on Photonics

Photonica13

IV International School and
Conference on Photonics

Photonica11

III International School and
Conference on Photonics

Photonica09

II International School and
Conference on Photonics



VII International School and Conference on Photonics
26 August - 30 August 2019, Belgrade, Serbia

PHOTONICA 2019

with

Machine Learning with Photonics Symposium: ML-Photonica 2019

ESUO Regional Workshop

CA16221 - AtomQT Meeting

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Joint Events

[Machine Learning with Photonics Symposium: ML-Photonica 2019](#)

[Regional Workshop of European synchrotron and FEL user organisation - ESUO](#)

[COST Action CA16221 - Quantum Technologies with Ultra-Cold Atoms - AtomQT](#)

News

October 9th 2019

Deadline for manuscript submission is extended until October 20th, 2019.

September 10th 2019

Manuscript submission in Optical and Quantum Electronics (OQE) is [open](#). Deadline for manuscript submission is October 10th, 2019.

September 4th 2019

Photo gallery is now available.

August 30th 2019

[Best Student Poster Prize Winners](#).

August 26th 2019

- [Nuclear Sciences](#)
University of Belgrade
- [School of Electrical Engineering](#)
University of Belgrade
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Live stream from the Main hall during PHOTONICA2019 you can follow [here](#).

August 25th 2019
[Daily schedule at PHOTONICA2019](#).

August 20th 2019
[Information about the opening hours of registration desk](#).

August 15th 2019
[Information about poster presentations](#).

August 7th 2019
[Book of abstracts](#) is published.

[Photonica17](#)
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VIII International School and Conference on Photonics
August 23 - August 27, 2021, Belgrade, Serbia

PHOTONICA 2021

with joint event:

- HEMMAGINERO workshop on erythrocytes and hemoglobin imaging

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News

November 15th 2021
Manuscript submission in *Optical and Quantum Electronics (OQE)* will be open on September 1st 2021. The final deadline for manuscript submission is October 31st 2021. November 15th 2021 November 22nd 2021. More details you can read [here](#).

September 6th 2021
NEW! Photo gallery ([day 1](#), [day 2](#), [day 3](#), [day 4](#), and [day 5](#)) is now available.

August 21st 2021
Information about the opening hours of registration desk

August 20th 2021
Live stream from the Main hall during PHOTONICA2021 you can follow [here](#).

August 18th 2021
NEW! The full timetable for the HEMMAGINERO workshop is now available [here](#).

August 13th 2021
NEW! Book of abstracts is published.

August 11th 2021
NEW! Important information for the online participation: the detailed instructions on how to use the Webex platform you can read [here](#).

August 11th 2021
The information on how to prepare your poster presentation, both *in person* or *online*, you can read [here](#).

August 9th 2021
The conference venue SASA is the distinguished institution of supreme national importance. Therefore, we kindly ask you to respect a dress code which you can read [here](#).

August 3rd 2021
NEW! The full timetable for all days at PHOTONICA2021 is now available [here](#).

July 29th 2021
The registration form will be closed on August 7th.

July 29th 2021
Early registration deadline is extended until August 6th 2021.

July 14th 2021
Conference poster is now available.

July 8th 2021
NEW! COVID-19: Conditions for entering the Republic of Serbia - please read [here](#).

June 30th 2021
Due to the great interest, final abstract submission deadline is extended until July 7th 2021.

June 30th 2021
Early registration deadline is extended until August 1st 2021.

June 14th 2021
Abstract submission deadline is extended until June 30th 2021.

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Lufthansa City Center
Panacomp Wonderland
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June 14th 2021
Early registration deadline is
extended until June 30th 2021

May 28th 2021
Abstract submission deadline is
extended until June 15th 2021

April 11th 2021
Selected peer reviewed
manuscripts will be published in
Topical collection of [Optical and
Quantum Electronics](#).

April 11th 2021
Due to the kindness of our
sponsor OSA, a limited number of
grants are available to support
selected student participants of
PHOTONICA2021. Please send
your request to
photonica2021@ipb.ac.rs, by
June 15th 2021.

April 7th 2021
[The list of speakers](#) is now
available.

February 1st 2021
[Abstract submission](#) is now open.

February 1st 2021
[Registration](#) is now open.

December 12th 2020
Photonica2021 website is open!

[Photonica19](#)
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Lufthansa City Center
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Прилог:
Докази предавања по позиву



Subject **Cordial invitation to present an Invited Talk at ICTON 2019, Angers, France, July 9-13, 2019**
From Marian Marciniak <M.Marciniak@itl.waw.pl>
To isicg@ipb.ac.rs <isicg@ipb.ac.rs>
Date 2018-12-05 14:38

Dear Professor Isic,

I trust you are well.

The 21st International Conference on Transparent Optical Networks ICTON 2019 will be kindly hosted by [Université d'Angers](#), France, July 9-13, 2019. Technical co-sponsorships by the IEEE Photonics Society, IEEE Photonics Society Poland Chapter, and IEEE Poland Section are foreseen amongst others.

Set in the heart of the region Pays de la Loire and easily reachable by the [TGV fast train](#) from Paris [Charles de Gaulle international airport](#), [Angers](#) is awaiting for its visitors to visit its emblematic attractions: The [Saint-Maurice cathedral](#), The Castle ([Château d'Angers](#)), [The Musée des Beaux-Arts d'Angers](#), and many more.

Therefore ICTON 2019 General Chair Professor Bouchta Sahraoui, IEEE Photonics Society Poland Chapter Chair Professor Jarosław Turkiewicz, and myself cordially invite you to attend ICTON 2019, and if possible to contribute with an Invited Paper addressing the progress in your research domain with a particular emphasis on your own and your lab achievements related to ICTON field of interests. We would appreciate very much if you could confirm your availability at your earliest convenience. Please do send me a preliminary information on your proposed contribution: the tentative title, intended author list if known, and a few-line abstract at your earliest convenience or by January 31, 2019. The full-text of your invited paper will be requested by April 20, 2019.

You may be aware ICTON aims to accommodate topics both from basic physics/optics/optical materials and network engineering. This has been appreciated and gently acknowledged by the attendees to all previous editions including recent [ICTON 2018 in Bucharest](#). To reach this goal ICTON accommodates top level invited presentations by recognised experts (this could be your own task!) addressing the most recent advances and novel technologies in photonic communications and signal processing and sensing, with a limited number of selected regular submissions, oral and poster ones.

Please kindly refer to <https://www.il-pib.pl/en/conferences/icton/327-icton-2019/1543-icton2019> for the scope of ICTON and its sections. Please note we request an electronic IEEE Copyright Transfer Form for all submissions including the invited ones - this is a condition to have your paper included in ICTON 2019 Proceedings and in the IEEE-Xplore Digital Library. You will find the IEEE Copyright information at https://www.ieee.org/publications_standards/publications/rights/copyrightmain.html#sect2

Should you have any preferences for ICTON sections/sessions as listed at [ICTON site](#) please kindly let us know, we would be happy to respect those.

Presentation time

ICTON invited presentation time is 20 min including short discussion.

Deadlines

January 31-

Short proposal (tentative title + co-authors if known + one paragraph abstract, text only). This will be used to announce your talk at the website.

April 20-

Full invited paper & IEEE Copyright Form.

Student Participation:

ICTON strongly promotes the participation of students and Ph.D. students. We kindly request you encourage your students to submit regular submissions for oral or poster presentation. The regular submissions have to be e-mailed to icton@itl.waw.pl. The deadline is March 31, 2019.

Registration & Fees

We ask ICTON Invited Speakers to register and to pay an Invited Speaker fee to cover the expenses related to their attendance. Please kindly consider the fees will be entirely spent for the benefit of the attendees as we do not make any profit from ICTON according to IEEE regulations. We will post the registration information at [Angers local website](#) soon.

Should you have any further questions please do not hesitate to contact us immediately.

We are looking towards to hear from you soon, and to our pleasure to welcome you at ICTON 2019 in Angers. However, should you decide not to attend ICTON 2019 due to other important commitments and/or preferences we would consider those with highest respect. In this case we would appreciate your nomination of a co-author who could present a joint invited paper. Needless to say we will be more than happy to welcome you in Angers coming July.

Looking forward to hear from you soon,

With thanks and kindest regards,

Marian.

also on behalf of:

Bouchta, ICTON 2019 General Chair

Jarosław, Photonics Society Poland Chapter Chair 2017-2019

21st International Conference on Transparent Optical Networks ICTON 2019

Angers, France, July 9-13, 2019

<http://www.icton2019.com/> (Angers site - Registration, Travel & Venue, Visa invitations, Social events)

<https://www.il-pib.pl/en/conferences/icton/327-icton-2019/1543-icton2019> (Warsaw site - Submissions, Programme, Proceedings)

ICTON papers are archived in IEEE-Xplore at <http://ieeexplore.ieee.org/xpl/conhome.jsp?punumber=1000766>

ICTON papers are listed in Web of Science at http://apps.webofknowledge.com/Search.do?product=WOS&SID=C4rV7w97bjIvxKf7YXI&search_mode=GeneralSearch&prID=7dd33e23-bf4b-42cd-9d2f-442991992d2a

ICTON is archived in SCOPUS https://www.scopus.com/results/results.uri?numberOffields=0&src=s&clickedLink=&edit=&editSaveSearch=&origin=searchbasic&authorTab=&affiliationTab=&advancedTab=&scint=1&menu=search&tablin=&searchterm1=ICTON&field1=CONF&dateType=Publication_Date_Type&yearFrom=Before+1960&yearTo=Present&loadDate=7&documenttype>All&resetFormLink=&st1=ICTON&st2=&sot=b&sdt=b&sl=11&s=CONF%28ICTON%29&sid=5e2c3d1dd88b06ab235ff7aaa3af2ca5&searchId=5e2c3d1dd88b06ab235ff7aaa3af2ca5&txGid=838783f81c35182ed5bdccfcf57b906ea&sort=plf-f&originationType=b&rr=

ICTON'2019

21st International Conference of Transparent Optical Network
and

11th Sub-Wavelength Photonics Conference SWP 2019
9-13 July 2019 Angers, France

Welcome Message from the Conference General Chair

Dear colleagues,

After successful conference editions (for example Girona) <https://icton2017.udg.edu/> and Bucharest last year, the ICTON 2018 conference will take place in Angers, which is in the heart of the region Pays de la Loire and easily reachable by the TGV fast train from Paris Charles de Gaulle international airport , Angers could be also reached from Nantes Atlantic airport.

Angers is awaiting for its visitors to visit its emblematic attractions: The Saint-Maurice cathedral, The Castle (Château d'Angers), The Musée des Beaux-Arts d'Angers, and many more. From Tuesday 09 to Saturday 13 July the ICTON 2019 will be the 21st anniversary conference from ICTON series. The 21st International Conference on Transparent Optical Networks ICTON 2019 will be kindly hosted by Université d'Angers, Angers, France, July 9 -13

We are looking forward to offer a warm welcome to all of you again for this new edition of the ICTON Conference, this time in Angers. An ambitious technical programme will be accompanied by an attractive set of social events to let you fully experience not only the city of Angers itself, but also some of the top highlights of the region of Pays de la Loire which is rich with cultural events particularly the selected period will coincide with celebration of Bastille Day which is the common name given in English-speaking countries to the national dayof France, which is celebrated on 14 July each year so you will have unforgettable attraction. Moreover Angers was officially elected in September 2018, 1st city of France where life is good. This is the ranking of "L'Express magazine" that revealed the capital of Maine-et-Loire, Angers, as a leader for its quality of life in France according to very specific criteria.

<https://www.my-angers.info/09/12/angers-1ere-ville-de-france-ou-il-fait-bon-vivre/74105>.

You can also enjoy the attractions and cultural events around the River Loire - Loire Valley, and the temperate climate along the Loire river valley which is due to Atlantic influences and this provides the remarkably diverse range of wildlife and fauna which exist today. It also provides the ideal environment that has established France's third largest wine region.

Bouchta SAHRAOUI,
General chair,
On behalf of the Organizing Committee.

Welcome Message from the Conference Honorary Chair



The University of Angers is pleased to host the 21st edition of the ICTON conference.

This is a great opportunity for our institution and the city of Angers to be the showcase for such a scientific event.

ICTON is a major international conference that relies on the participation of highly qualified and renowned researchers from all over the world. We would like to thank you for choosing Angers and also thank our colleagues for ensuring this event is a success. It is through your daily hard work that science can move forward.

On behalf of the University of Angers and its President, Mr. Robledo, I wish you a very warm welcome in Angers as well as fruitful discussions.

Prof. Françoise Grolleau
Vice-President international

Committees

Conference Chairs

Honorary Chair:
Françoise Grolleau
Conference Chair:
Bouchta Sahraoui (University of Angers)
Conference Originator:
Marian Marciniak (NIT)

Local Organizing committee

Chairman: Bouchta Sahraoui

Members:
Régis Barillé
Marc Sallé
François Sanchez
Abdelkrim El Ghayoury
Dominique Guichaoua
Karolina Waszkowska
Anna Popczyk

International Organizing committee

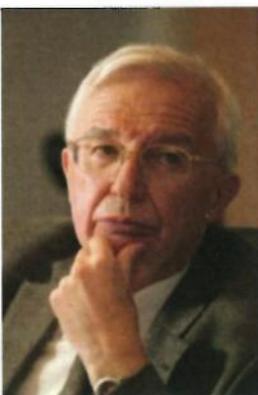
Chairman: Marian Marciniak
Vice-chair: Marek Jaworski

Members:
Krzysztof Borzycki
Mirosław Klinkowski
Dorota Marciniak
Anna Piotrowska
Hanna Skrobek
Marcin Szamotulski
Mariusz Zdanowicz

Keynote Speakers

Professor Jean-Marie Lehn (Nobel laureate), ISIS, Université de Strasbourg, France

Perspectives in Chemistry: Molecular – Supramolecular – Adaptive Chemistry (abstract)



Jean-Marie Lehn is Professor at the University of Strasbourg Institute for Advanced Study (USIAS), Emeritus Professor at the University of Strasbourg, and Honorary Professor at the Collège de France in Paris. In 1968, he achieved the synthesis of cage-like molecules (cryptands) containing a cavity (crypt) into which another entity, molecule or ion of specific nature, can be lodged, forming a cryptate. This work expanded into the investigation of the chemical basis of "molecular recognition" (the way in which a receptor molecule recognizes and selectively binds a substrate), which plays a fundamental role in biological processes. Over the years these studies led to the definition of a new field of chemistry, which he called "supramolecular chemistry". It deals with the complex entities formed by the association of two or more chemical species held together by intermolecular forces.

In 1987, Jean Marie Lehn was awarded the [Nobel Prize in Chemistry](#), together with Donald Cram and Charles J. Pedersen. Professor Lehn's work developed into the chemistry of self-organisation processes, based on the design of "programmed" chemical systems that undergo spontaneous assembly of suitable components into well-defined supramolecular species, directed by the supramolecular processing of molecular information. More recently, the implementation of dynamic features and of selection led to the development of "constitutional dynamic chemistry", concerning entities able to undergo reorganization in response to external stimuli, thus pointing to the emergence of an "adaptive and evolutive chemistry". Professor Lehn founded the *Institute of Supramolecular Science and Engineering (ISIS)* in Strasbourg in 2002. He has been involved in a large number of public and private boards and committees and also participated in several start-up companies. As president of the non-governmental International Organization for Chemical Sciences in Development ([IOCD](#)), he aims, together with a group of dedicated colleagues, to contribute to helping chemists in developing countries. He is the author of over 1000 scientific publications and two books, and member of many academies and institutions. He has received numerous international honors and awards, among them *Officer of the French National Order of Merit* (1993), *Grand Officer of the French Legion of Honour* (2014), *Österreichisches Ehrenzeichen für Wissenschaft und Kunst*, (Austrian Decoration for Science and Art -first class, 2001) and the *Grosses Verdienstkreuz mit Stern der Bundesrepublik Deutschland* (Knight Commander's Cross of the Order of Merit of the Federal Republic of Germany - 2009).

Professor Gaetano Assanto, University Roma Tre, Italy

"Spatial optical solitons in nematic liquid crystals: en-route to photonics" (Abstract)



G. Assanto completed in 1986 his PhD in Electrical and Computer Engineering, awarded by the Italian Ministry of Education after studies at the Universities of Palermo, Iowa and Arizona (USA). Till June 1988 he was Researcher at the Center for Electronic Research in Sicily, then Research Associate with the Optical Sciences Center at the University of Arizona, Senior Research Scientist with the Center for Research in Electro Optics and Lasers (University of Central Florida). In 1992 he became Associate Professor at the University "Roma Tre", where established the Nonlinear Optics and OptoElectronics Lab (NooEL) and qualified in 1999 for a Full Professorship in Electronics.

Gaetano Assanto is an OSA and IEEE (Photonics) Fellow; a member of the Polish Photonics Society, the Association of Novel Optical Material and Applications, the Italian Society for Optics and Photonics, the Italian Association for Electric Technology, the Italian Institute for Nuclear Physics, the (Italian) Interuniversity Consortium for the Structure of Matter, the Italian Society for Liquid Crystals, the European Optical Society and the European Physical Society. He was 2009-2011 IEEE Distinguished Lecturer (Photonics Society), Zeiss Professor at Universitat Friedrich Schiller (Germany), Honorary Professor at the University of Wollongong (Australia), Visiting Professor at Université de Nice (Sophia Antipolis) and INLN-CNRS (France), Universidad Nacional Autónoma de Mexico, Technical University of Warsaw (Poland), Universidad de Vigo (Spain), King Abdullah University of Science and Technology (Saudi Arabia), Australian National University, Texas A&M University in Qatar, 2014-2018 Finland Distinguished Professor at Tampere University of Technology. He serves or has served the editorial boards of OSA and IEEE, MDPI Materials, Laser Physics Review, Trends in Applied Sciences Research, Research Letters in Optics, Int. J. of Optics, J. Nonl. Opt. Phys. & Materials, Scientific Reports, IOP J. Optics.

Professor Isabelle Ledoux-Rak, École Normale Supérieure Paris-Saclay, FR

Nanoparticles for quadratic nonlinear optics : from dielectric to metallic structures



Isabelle Ledoux-Rak is currently appointed as Professor at École Normale Supérieure de Cachan and Head of the LPQM (Molecular and Quantum Photonics Laboratory) at École Normale Supérieure Paris-Saclay. Her current research interests include molecular and material engineering for photonic applications, investigation of gold nanoparticles for quadratic nonlinear optics and elaboration of waveguide polymer devices for sensor applications. She was recently awarded the 2015 Holweck medal from the Institute of Physics for her pioneering contributions to our understanding of the nonlinear optical properties of metal complexes, and demonstration of optical amplification phenomena at telecom wavelengths in polymer optical waveguides. She is the coordinator of the Erasmus Mundus Master course: "Molecular nano- and biophotonics for telecommunications and biotechnologies", since September 2006.

Professor Peter Cochrane OBE, Sentient Systems University of Suffolk UK

Networks for An Infinite Service Future (Abstract)



As a seasoned professional with over 40 years of hands on management, technology and operational experience, Peter has been involved in established companies at an operational level, the creation and deployment of new technologies, products and management systems, plus the transformation of corporations, and the starting of many new businesses. This has involved board level responsibility in companies spanning £Bns to £Ms and an individual budget up to £100M with a management loading in excess of 1000 people.

Peter's BT career saw a progression from a linesman to R&D engineer before becoming Head of Research and then CTO. With a 1000 strong team engaged in studies spanning optical fiber, fixed and mobile networks, Peter reported direct to the main board and was responsible for developments that would support future IP, eCommerce, eRetail, eLogistics and many other new businesses. Peter's PhD was pivotal in BT deciding to go all-digital and all-optical in the 1970's, and he played a key role in a downsizing of BT from 242,000 to 110,000 people in the early 1990s.

As a consultant and university professor, Peter has also been employed in the defence, logistics, travel, energy, healthcare, transport, pharma, and consulting sectors as an advisor, board member, and manager with responsibilities for strategy and operations with budget responsibilities up to £1bn. As an investor and entrepreneur Peter has also engaged in the founding of new companies, investment and the management of growth leading to market success.

He was appointed as the UK's first Prof for the Public Understanding of Science & Technology @ Bristol in 1998. A graduate of Nottingham Trent and Essex Universities, Peter has received notable recognition with the Queen's Award for Innovation & Export in 1990 and Honorary Doctorates from Essex, Robert Gordon, Stafford, Nottingham Trent and Brunel Universities. He was awarded an OBE in 1999 for contributions to international communications.

ICTON 2019 Programme

Tuesday, July 9

13:00 Registration

14:30 Opening Ceremony (14:30 – 14:50) **Amphi D**

PLENARY I Chair: Leonid Kazovsky (14:50 – 16:10) **Amphi D**

Coffee break (16:10 – 16:40)

ICTON I Chair: Marian Marciniak (16:40 – 18:00) **Amphi D**

18:00 – 20:00 Welcome Reception at the conference venue (UFR Sciences 2 Boulevard Lavoisier 49045 Angers – Bâtiment L)

Wednesday, July 10

8:00 Registration

PLENARY II Chair: Jean-Luc Filaut (8:30 – 9:00)

Track 1 – Hall L001	Track 2 – Hall L002	Track 3 – Hall L003	Track 4 – Hall L004	Track 5 – Hall L005	Track 6 – Hall L006	Track 7 – Hall L007
Coffee break (11:05-11:30)	Coffee break (11:10-11:30)	Coffee break (11:10-11:40)	Coffee break (10:50-11:20)	Coffee break (10:50-11:20)	Coffee break (10:50-11:30)	Coffee break (10:50-11:20)
ICTON II (9:10-11:05) <i>Chair: Andrea Fumagalli</i>	OWW II (9:10-11:10) <i>Chair: Mike Wolf</i>	BigNeO I (9:10-11:10) <i>Chair: Luis Velasco</i>	SWP I (9:10-10:50) <i>Chair: Ganesh Subramanya</i>	QComm I (9:10-10:50) <i>Chair: Armando Pinto</i>	N. Glasses I (9:10-11:10) <i>Chair: Wilfried Blanc</i>	MOON I (9:10-10:50) <i>Chair: Vittorio Curi</i>
ICTON III (11:30-12:50) <i>Chair: Rui Lin</i>	OWW II (11:30-13:20) <i>Chair: Jan Latal</i>	BigNeO II (11:40-13:20) <i>Chair: Marc Rule</i>	SWP II (11:20-13:20) <i>Chair: Oksana Krupka</i>	QComm II (11:20-12:55) <i>Chair: Vicente Martin</i>	N. Glasses II (11:30-12:50) <i>Chair: Jean-Luc Adam</i>	MOON II (11:20-12:00) <i>Chair: Vittorio Curi</i>
ICTON IV (14:20-16:45) <i>Chair: Kambiz Jamshidi</i>	FIWNSG (14:40-16:40) <i>Chair: Giovanni Serafino</i>	BigNeO III (14:50-16:40) <i>Chair: Alba Pérez Vela</i>	SWP III (14:50-16:30) <i>Chair: Anna Zawadzka</i>	QComm III (14:20-16:20) <i>Chair: Alberto Porzio</i>	N. Glasses III (14:30-16:30) <i>Chair: Elena Romanova</i>	Lunch break (12:50-14:20)
ICTON V (16:45-18:45) <i>Chair: Jan Latal</i>	RONEXT I (17:00-18:40) <i>Chair: Lena Wosińska</i>	CTS I (17:10-18:30) <i>Chair: Kira Kastell</i>	SWP IV (17:00-18:40) <i>Chair: Konstantinos Iliopoulos</i>	QComm IV (16:50-18:30) <i>Chair: Virginia D'Auria</i>	ESPC I (16:50-18:50) <i>Chair: Sławomir Sujecki</i>	Coffee break (16:30-16:50)
19:45 – 23:00 Diner and concert at "Grenier St Jean" (Place du Terre Saint Laurent 49000 Angers)						

Thursday, July 11

ICTON VI (8:30-10:30) <i>Chair: Alexandre Pohl</i>	5GT I (8:30-10:30) <i>Chair: Josep Fabregas</i>	CTS II (8:30-9:45) <i>Chair: Kira Kastell</i>	SWP V (8:30-9:50) <i>Chair: Matthieu Loumailgne</i>	QComm V (8:30-10:10) <i>Chair: Nuno Silva</i>	ESPC II (8:30-10:30) <i>Chair: Crina Cojocaru</i>
Coffee break (10:30-11:00)	Coffee break (10:30-11:00)	Coffee break (9:45-10:15)	Coffee break (9:50-10:20)	Coffee break (10:10-10:40)	Coffee break (10:30-11:00)
ACCESS I (11:00-12:35) <i>Chair: Josep Pria</i>	SGT II (11:00-12:55) <i>Chair: Lena Wosińska</i>	Flex-ON I (10:15-12:15) <i>Chair: Armando Pinto</i>	SWP VI (10:20-12:20) <i>Chair: Jarosław Myśliwiec</i>	QComm VI (10:40-12:15) <i>Chair: Nelson Muga</i>	N. Glasses IV (11:00-12:40) <i>Chair: Reinhard Kasprzyk</i>
Lunch break (12:35-14:00)	Lunch break (12:55-14:20)	Lunch break (12:15-13:45)	Lunch break (12:20-13:30)	Lunch break (12:15-14:00)	Lunch break (12:40-14:10)
POSTER Session I (13:30-15:30)					
ACCESS II (14:00-15:50) <i>Chair: Ernesto Ciaramella</i>	OPhot I (14:20-16:00) <i>Chair: Marco Liscidini</i>	Flex-ON II (13:45-16:40) <i>Chair: Paulo Monteiro</i>	SWP VII (12:50-15:40) <i>Chair: Cid da Araújo</i>	NAON I (14:00-16:00) <i>Chair: Gerardo Castaño</i>	Fibre Lasers I (14:10-15:10) <i>Chair: Pavel Peterka</i>
Coffee break (15:50-16:20)	Coffee break (16:00-16:30)	Coffee break (15:40-16:10)	Coffee break (15:40-16:10)	Coffee break (16:00-16:30)	Coffee break (15:10-15:40)
MARS (16:20-18:20) <i>Chair: Mirosław Klinkowski</i>	GOC I (16:30-17:45) <i>Chair: Luca Valcarenghi</i>	DACINT (16:10-18:05) <i>Chair: Jarosław Turkiewicz</i>	SWP VIII (16:10-18:10) <i>Chair: Andrei Lavrinenko</i>	NAON II (16:30-18:10) <i>Chair: Maciej Demas</i>	Fibre Lasers II (15:40-16:40) <i>Chair: François Sanchez</i>
19:45 – 23:00 Diner and concert at "Grenier St Jean" (Place du Terre Saint Laurent 49000 Angers)					

Friday, July 12

MWP I (8:30-9:45) <i>Chair: Tibor Berceli</i>	GOC II (8:30-9:30) <i>Chair: Carmen Mas Machuca</i>	DCN I (8:30-9:50) <i>Chair: Lena Wosińska</i>	SWP IX (8:30-10:30) <i>Chair: Abdellah El-Hachoury</i>	NAON III (8:30-9:45) <i>Chair: Ana Quince</i>	LFSRS I (8:30-10:10) <i>Chair: Shi-Wei Chu</i>
Coffee break (9:45-10:15)	Coffee break (9:30-10:00)	Coffee break (9:50-10:20)	Coffee break (10:30-11:00)	Coffee break (9:45-10:15)	Coffee break (10:10-10:40)
MWP II (10:15-11:55) <i>Chair: Stavros Iezekiel</i>	OPhot II (10:00-11:40) <i>Chair: Daryl Beiggs</i>	DCN II (10:20-11:45) <i>Chair: Ken-ichi Sato</i>	SWP X (10:15-11:20) <i>Chair: Abdel El Abed</i>	PICAW I (10:15-11:55) <i>Chair: Sylvester Latkowski</i>	LFSRS II (10:40-11:40) <i>Chair: Vasily Astratov</i>
Lunch break (11:55-13:30)	Lunch break (11:40-13:10)	Lunch break (11:45-13:15)	Lunch break (12:30-14:00)	Lunch break (11:55-13:20)	Lunch break (11:40-13:30)
POSTER Session II (13:30-15:30)					
MWP III (13:30-14:50) <i>Chair: Robert Minasian</i>	OSCoSg (13:10-15:05) <i>Chair: Poulla Sayyed Khodsehnes & Hamzeh Khalil</i>	MALOC (13:15-15:30) <i>Chair: Luis Velasco</i>	NOA I (14:00-15:20) <i>Chair: Mingming Tan</i>	PICAW II (13:20-15:15) <i>Chair: John Donegan</i>	LFSRS III (13:30-14:50) <i>Chair: Vahagn Mkhitaryan</i>
Coffee break (14:50-15:20)	Coffee break (15:30-15:30)	Coffee break (15:30-16:00)	Coffee break (15:20-15:50)	Coffee break (15:15-15:45)	Coffee break (14:50-15:20)
THzP I (15:20-17:00) <i>Chair: Guillermo Carpintero</i>	GOWN (15:30-16:45) <i>Chair: Carmo Medeiros</i>	NetOrch (16:00-16:55) <i>Chair: Ivan Djordjević</i>	NOA II (15:50-17:10) <i>Chair: Paweł Rosa</i>	PICAW III (15:45-17:35) <i>Chair: Lucio Andreani</i>	OMT I (15:20-17:15) <i>Chair: Georges Boudebis</i>
19:45 – 23:00 Gala Dinner at "Centre de Congrès d'Angers" (33 Boulevard Carnot, 49100 Angers)					

Saturday, July 13

THzP II (8:30-9:45) <i>Chair: Andreas Stöhr</i>	RONEXT II (8:30-9:50) <i>Chair: Carlos Natalino</i>	WAOR I (8:30-9:40) <i>Chair: Hélio Waldman</i>	PAM I (8:30-9:50) <i>Chair: Hassna El Ouszaani</i>	PICAW IV (8:30-9:50) <i>Chair: Peter Horak</i>	OMT II (8:30-9:50) <i>Chair: George Stanciu</i>
Break (9:45-10:00)		Break (9:40-9:50)	Break (9:50-10:00)	Break (9:50-10:00)	Break (9:50-10:00)
SDM-WDM (10:00-11:20) <i>Chair: Marian Marciniak</i>		WAOR II (9:50-11:20) <i>Chair: Jaume Comellas</i>	PAM II (10:00-11:35) <i>Chair: Trevor Benson</i>	PICAW V (10:00-11:35) <i>Chair: Shumin Wang</i>	OMT III (10:00-11:15) <i>Chair: Eleonora Frau</i>
Coffee break (11:20-12:00)		Coffee break (11:20-12:00)	Coffee break (11:35-12:00)	Coffee break (11:35-12:00)	Coffee break (11:15-12:00)
PLENARY III Chair: Isabelle Ledoux-Rak and Bouchta Sahraoui (12:00 – 12:40) Amphi D					
Closing Ceremony and Announcement of ICTON 2020 (12:40 – 13:00) Amphi D					
Lunch 13:00					

Symbol	Session title	Symbol	Session title
5GT	5 th Workshop on 5G Transport Networks	MWP	9 th Special Session on Microwave Photonics
ACCESS	11 th Workshop on Broadband Access	N. Glasses	14 th Special Session on Novel Glasses for Photonic Devices
AFLaser	1 st Conference on Advanced Fibre Lasers and Coherent Sources	NAON	14 th Nanophotonics for All-Optical Networking Workshop
BigNeO	6 th Workshop on Big Data Analytics and Network Optimization	NetOrch	4 th Workshop on Multi-Layer Network Orchestration
CTS	10 th Anniversary Workshop on Communication in Transportation Systems	NOA	3 rd Workshop on Novel Optical Amplifiers
DACINT	5 th Workshop on Technology for Data Center Interconnects	OMT	2 nd Workshop on Optical Microscopy Techniques
DCN	5 th Workshop on Datacenter Networks	OSCoSg	1 st Workshop on Integration of Optical and Sat. Comm. Systems into 5G Edge Networks
ESPC	18 th European Symposium on Photonic Crystals	OWW	15 th Optical Wireless Workshop
FIWNSG	4 th Workshop on Fiber-Wireless Network Technologies and Architectures towards 5G	PAM	14 th Special Session on Photonic Atoms & Molecules
Flex-ON	3 rd Workshop on Flexible and High-Capacity Optical Networks	PICAW	15 th Photonic Integrated Components & Applications Workshop
GOC	9 th Workshop on Green Optical Communications	QPhot	4 th Workshop on Quantum Photonics
GOWN	16 th Global Optical & Wireless Networking Seminar	RONEXT	15 th Reliability Issues in Next Generation Optical Networks Workshop
LFSRS	3 rd Workshop on Label-Free Super-Resolution and Sensing	SDM-WDM	3 rd Workshop on High Capacity SDM-WDM Optical Networking
MALOC	1 st Workshop on Machine Learning for Optical Communications	SWP	11 th Sub-Wavelength Photonics Conference
MARS	14 th Special Session on Market in Telecommunications	ThzP	1 st DFG MARIE workshop on Thz Photonics
MOON	1 st Workshop on Multi-band Open Optical Networks	WAOR	18 th Workshop on All-Optical Routing

Tuesday, July 9

13:00 *Registration*

14:30 **Opening Ceremony** (14:30 – 14:50 Tuesday, July 9) **Amphi D**

PLENARY I Chair: Leonid Kazovsky (14:50 – 16:10 Tuesday, July 9) **Amphi D**

14:50 **Tu.A.1** Spatial optical solitons in nematic liquid crystals: En-route to photonics (*Invited*)
G. Assanto

15:30 **Tu.A.2** Networks for an infinite service future (*Invited*)
P. Cochrane and M. Abdel-Maguid

Coffee break (16:10 – 16:40)

ICTON I Chair: Marian Marciniak (16:40 – 18:00 Tuesday, July 9) **Amphi D**

16:40 **Tu.B.1** Nano-structures and plasmonic nano-antennas based devices for photonic sensing and data handling applications (*Invited*)
M. Cohen, Y. Abulafia, R. Shavit, A. Rudnitsky, S. Agdarov, and Z. Zalevsky

17:00 **Tu.B.2** Silicon photonics for coherent terahertz generation and detection (*Invited*) W. Freude, T. Harter, S. Muehlbrandt, S. Ummethala, S. Nellen, L. Hahn, S. Handel, and C. Koos

17:20 **Tu.B.3** Reconfigurable radio-over-fibre networks for interference mitigation in linear cell radars (*Invited*) T. Kawanishi, T. Miura, and K. Inagaki

17:40 **Tu.B.4** Label free super-resolved nanoscopy: PALM-like, STED-like and hybrid AFM/NSOM (*Invited*) A. Karsenty, A. Chelly, M. Sinvani, H. Pinhas, O. Wagner, Y. Danan, and Z. Zalevsky

18:00 – 20:00 **Welcome Reception at the conference venue** (UFR Sciences 2 Boulevard Lavoisier 49045 Angers – Bâtiment L)

Wednesday, July 10

8:00 *Registration*

PLENARY II Chair: Jean-Luc Fillaut (8:30 – 9:00 Wednesday, July 10)

8:30 **We.A** Nanoparticles for quadratic nonlinear optics: From dielectric to metallic structures (*Invited*)
I. Ledoux-Rak

Saturday, July 13

PLENARY III Chair: Isabelle Ledoux-Rak and Bouchta Sahraoui (12:00 – 12:40 Saturday, July 13) **Amphi D**

12:00 **Sa.C** Perspectives in chemistry: Molecular – Supramolecular – Adaptive chemistry (*Invited*)

Professor Jean-Marie Lehn, Nobel Prize Laureate in Chemistry

Closing Ceremony and Announcement of ICTON 2020 (12:40 – 13:00 Saturday, July 13) **Amphi D**

Lunch 13:00

Track 1 – Hall L001

ICTON II Chair: Andrea Fumagalli (9:10-11:05 Wednesday, July 10)

9:10 **We.B1.1** A comparative analysis of data models for optical transport networks (*Invited*)

A. Farrel and D. King

9:30 **We.B1.2** Interoperability issues in optical transport networks (*Invited*)

L. Alahdab, C. Ware, E. Le Rouzic, J. Meuric, and A. Triki

9:50 **We.B1.3** Bulk data transfer with store-and-forward in wide area networks (*Invited*)

Weiqiang Sun, Shengnan Yue, Qian Liu, Xiao Lin, and Weisheng Hu

10:10 **We.B1.4** A survey of neural network applications in fiber nonlinearity mitigation (*Invited*)

C. Catanese, A. Triki, E. Pincemin, and Y. Jaouen

10:30 **We.B1.5** Regular perturbation for the weak-dispersion regime (*Invited*)

V. Oliari, E. Agrell, and A. Alvarado

10:50 **We.B1.6** Eigenvalue trajectories in multispansoliton transmission systems under lumped and distributed amplification

B. Leible and N. Hanik

Coffee break (11:05-11:30)

ICTON III Chair: Rui Lin (11:30-12:50 Wednesday, July 10)

11:30 **We.C1.1** SDN-enabled adaptive modulation and coding in hybrid C-RANs (*Invited*)

Mingwei Yang, H. Rastegarfar, and I. B. Djordjevic

11:50 **We.C1.2** Low-cost/power coherent transceivers for intra-datacenter interconnections and 5G fronthaul links (*Invited*)

I. Tomkos, A. Tolmachev, A. Agmon, M. Meltsin, T. Nikas, and M. Nazarathy

12:10 **We.C1.3** A coherent receiver for analog-over-fiber systems based on feed-forward carrier-recovery (*Invited*)

M. Presi, M. Rannello, and E. Ciaramella

12:30 **We.C1.4** Adaptive optical transmission systems employing multidimensional modulation (*Invited*)

S. Ohlendorf, T. Wettlin, S. Pachnicke, and W. Rosenkranz

ICTON IV Chair: Kambiz Jamshidi (14:20-16:15 Wednesday, July 10)

14:20 **We.D1.1** Novel real time DC bias monitoring technique for single polarisation quad-drive IQ modulator (*Invited*)

N. Canas-Estrada and F. C. Garcia Gunning

14:40 **We.D1.2** On the use of SOA-based tunable dispersion compensator in ultrafast incoherent fiber-optic CDMA systems under temperature variation (*Invited*)

Wing C. Kwong, S. Seyedzadeh, I. Glesk, and Guu-Chang Yang

15:00 **We.D1.3** Optical power budget enhancement in 50 Gb/s IM-DD PONs with NOMA CAP modulation and SOA-based amplification

S. Sarmiento, J. M. Delgado Mendieta, J. A. Altabás, S. Spadaro, S. Shinoda, H. Furukawa, J. J. Vegas Olmos, J. A. Lázaro, and N. Wada

15:15 **We.D1.4** Assessment of the combined effect of laser phase noise and intercore crosstalk on the outage probability of DD OOK systems

J. L. Rebola, T. M. F. Alves, and A. V. T. Cartaxo

15:30 **We.D1.5** Propagation effects in mixed 10G-100G dispersion managed optical links

E. Virgillito, A. Castoldi, A. D'Amico, S. Straulio, S. Abrate, R. Pastorelli, and V. Curri

15:45 **We.D1.6** High-quality 10 and 20 GHz repetition rate optical sources based on the spectral phase tailoring of a temporal sinusoidal phase

modulation

U. Andral, B. Kibler, K. Hammani, J. Fatome, and C. Finot

16:00 We.D1.7 Real-DFT based DCO-OFDM and ACO-OFDM for optical communications systems
R. G. A. Gallo, A. M. Abdelaziz, M. Alghoniemy, and H. M. H. Shalaby

Coffee break (16:15-16:45)

ICTON V Chair: Jan Latal (16:45-18:40 Wednesday, July 10)

- 16:45 We.E1.1 Application of seven core fiber-based sensor on torsion angle measurement and vital signs monitoring (*Invited*)
Changyuan Yu, Fengze Tan, Zhengyong Liu, Shuyang Chen, and Zhenyu Huang
- 17:05 We.E1.2 A review on the applications and challenges of active silicon ring resonators (*Invited*)
K. Jamshidi, M. Catuneanu, N. Annavarapu, S. Dev, S. Sabouri, R. Hamerty, D. Gray, C. Rogers, D. Heydari, and H. Mabuchi
- 17:25 We.E1.3 Generation of optical combs based on intensity electro-optic modulators using a differential evolution algorithm (*Invited*)
G. F. I. Penduik, P. de Tarso Neves Jr., and A. de Almeida Prado Pohl
- 17:45 We.E1.4 POF application to building ventilation systems in harsh environment (*Invited*)
C. Stochita, A. Marchewka, and D. Eap
- 18:05 We.E1.5 Underwater optical network for remote sensing applications in fluvial environments (*Invited*)
A. Ramirez, M. Morant, and R. Llorente
- 18:25 We.E1.6 Si and Si-rich silicon-nitride waveguides for optical transmissions and nonlinear applications around 2 μm
M. Lamy, C. Finot, C. Lacava, G. Roelkens, B. Kuyken, A. Pariaux, G. Millot, P. Petropoulos, and K. Hammami

ICTON VI Chair: Alexandre Pohl (8:30-10:30 Thursday, July 11)

- 8:30 Th.A1.1 The laser linewidth – Fairy tales and physical evidence (*Invited*)
M. Pollnau
- 8:50 Th.A1.2 Non-Hermitian broad aperture semiconductor lasers based on PT-symmetry (*Invited*)
M. Botez, W. Ahmed, J. Medina, R. Herrero, and K. Staliunas
- 9:10 Th.A1.3 Complex dynamics of long cavity lasers (*Invited*)
S. Slepnev, U. Gowda, A. Pimenov, A. G. Vladimirov, E. Viktorov, and G. Huyet
- 9:30 Th.A1.4 Titanium dioxide waveguides for supercontinuum generation and optical transmissions in the near- and mid-infrared (*Invited*)
M. Lamy, C. Finot, L. Markey, J. Arcas, J. Fatome, B. Kibler, A. Dereux, J.-C. Weeber, and K. Hammami
- 9:50 Th.A1.5 Real-time measurements of ultrafast instabilities in nonlinear fiber optics: Recent advances (*Invited*)
J. M. Dudley, P. Ryckowski, M. Närhi, C. Bille, J.-M. Merolla, C. Lapre, F. Meng, P.-A. Lacourt, and G. Genty
- 10:10 Th.A1.6 Multidimensional shaping of spatiotemporal waves in multimode nonlinear fibers (*Invited*)
S. Wabnitz, A. Niang, D. Modolto, A. Barthelemy, A. Tonello, V. Couderc, V. Kermene, A. Desfarges-Berthelemot, M. Fabert, E. Deliancourt, K. Krupa, and G. Millot

Coffee break (10:30-11:00)

ACCESS I Chair: Josep Prat (11:00-12:35 Thursday, July 11)

- 11:00 Th.B1.1 Versatile metro-access network integrating FTTH, enterprises, IoT and 5G services (*Invited*)
J. Segarra, V. Sales, and J. Prat
- 11:20 Th.B1.2 Disruptive photonic technologies for the future sustainable high-capacity metro network (*Invited*)
A. Gatto, P. Parolari, M. Rapisarda, C. Neumeier, S. Bhat, G. Delrosso, M. Svaluto Moreolo, J. M. Fabrega, L. Nadal, P. Boffi
- 11:40 Th.B1.3 Effect of filtering in dense WDM metro networks adopting VCSEL-based multi-Tb/s transmitters (*Invited*)
P. Parolari, A. Gatto, M. Rapisarda, C. Neumeier, M. Svaluto Moreolo, J. M. Fabrega, L. Nadal, and P. Boffi
- 12:00 Th.B1.4 Advanced technologies for coherent access networks (*Invited*)
J. A. Altabas, D. Izquierdo, J. Clemente, S. Sarmiento, G. Silva Valdecasa, M. Squarcicchia, L. F. Suhr, O. Gallardo, A. Lopez, M. Á. Losada, J. Mateo, J. Bevensee Jensen, J. A. Lazaro, and I. Garces
- 12:10 Th.B1.5 Demonstration of asymmetric wavelength selective switch based on LCoS SLM for optical access network
Hsi-Hsir Chou and Chia-Lun Chen

ACCESS II Chair: Ernesto Ciaramella (14:00-15:50 Thursday, July 11)

- 14:00 Th.C1.1 Adaptive coding and modulation for robust 5G PONs (*Invited*)
E. Chou and J. M. Kahn
- 14:20 Th.C1.2 Direct PSK-ASK modulation for coherent udWDM (*Invited*)
J. Prat, J. C. Velasquez, and J. Tabares
- 14:40 Th.C1.3 Towards 25+ Gbps/s IM-DD PON: NRZ, duobinary, PAM4, and DMT transmission and optical budget comparison (*Invited*)
A. Udalcovs, Lu Zhang, A. Djupsjöbacka, Shilin Xiao, Jiajia Chen, S. Popov, and O. Ozolins
- 15:00 Th.C1.4 Physical-layer OFDM data encryption using chaotic QAM mapping (*Invited*)
Xuelin Yang, A. Sultan, A. A. E. Hajomer, and Weisheng Hu
- 15:20 Th.C1.5 Optimization of OFDM parameters for 10-Gbps long reach coherent PONs
A. Ferreira, B. Dias, J. A. de Oliveira, A. Alves, J. D. Marconi, G. Campuzano, J. Pita, and I. Aldaya
- 15:35 Th.C1.6 Novel dynamic bandwidth and wavelength allocation algorithm for energy efficiency in TWDM-PON
S. Garg and A. Dixit

Coffee break (15:50-16:20)

MARS Chair: Miroslaw Klinkowski (16:20-18:20 Thursday, July 11)

- 16:20 Th.D1.1 Optimal dimensioning of the 5G optical fronthauls for providing ultra-high bit rates in small-cell and femto-cell deployments (*Invited*)
G. V. Arévalo and R. Gaudino
- 16:40 Th.D1.2 Multi-layer optimization framework for optical transport networks with dynamic margin management (*Invited*)
J. Pedro, D. Moniz, and J. Pires
- 17:00 Th.D1.3 Impact of vendor selection on the total cost of ownership of intra-data centre networks (*Invited*)
R. Romero-Reyes, V. Vijayakumar Pai, S. Sultana, and T. Bauschert
- 17:20 Th.D1.4 How optical-circuit/electrical-packet hybrid switching will create high performance and cost-effective data center networks (*Invited*)
Ken-ichi Sato
- 17:40 Th.D1.5 Severe cold weather is valuable to build Northeast China as the largest data and computing centre in China and in the world (*Invited*)
Shaomin Yan and Guang Wu
- 18:00 Th.D1.6 Path planning of submarine cables (*Invited*)
Qing Wang, Zengfu Wang, Jun Guo, E. Tahchi, Xinyu Wang, B. Moran, and M. Zukerman

MWP I Chair: Tibor Berceli (8:30-9:45 Friday, July 12)

- 8:30 Fr.A1.1 Advances in microwave photonic beamforming for phased-array antennas (*Invited*)
R. A. Minasian and Xiaoke Yi
- 8:50 Fr.A1.2 Microphotonics-based architectures of mini-SAR payloads (*Invited*)
M. N. Armenise, F. Dell’Olio, C. Ciminielli, C. Galeone, and G. Brunetti
- 9:10 Fr.A1.3 Distributed coherent radars enabled by fiber networks (*Invited*)
P. Ghelfi, L. Lembo, F. Scotti, G. Serafino, S. Maresca, and A. Bogoni
- 9:30 Fr.A1.4 A photonic beamforming network based on phase shifters for microwave wide-band applications
G. Serafino, B. Hussain, C. Porzi, M. Chiesa, V. Toccafondo, A. Bogoni, and P. Ghelfi

Coffee break (9:45-10:15)

MWP II Chair: Stavros Iezekiel (10:15-11:55 Friday, July 12)

- 10:15 Fr.B1.1 Radio-frequency signal generation using actively frequency stabilised monolithically integrated InP-based lasers (*Invited*)
S. Andreou, K. Williams, and E. Bente
- 10:35 Fr.B1.2 Analog radio over fiber links for future 5G radio access networks (*Invited*)
D. Perez-Galacho, D. Sartiano, and S. Sales
- 10:55 Fr.B1.3 Optically generated millimeter wave reflectometry signals approaches followed in the RETIOT project (*Invited*)
M. C. R. Medeiros, P. Almeida, P. Laurénco, and P. M. Monteiro
- 11:15 Fr.B1.4 Compact millimeter-wave wireless link using photonic-based broadband transmitter and Schottky-based envelope detector (*Invited*)
R. Guzman, M. Ali, A. Zarzuelo, J. Cesár Cuello, and G. Carpintero
- 11:35 Fr.B1.5 SOA-MZI all-optical RoF signal mixing (*Invited*)
D. Kastritis, K. E. Zoiros, T. Ramponi, and A. Sharahiha

Lunch break (11:55-13:30)

MWP III Chair: Robert Minasian (13:30-14:50 Friday, July 12)

- 13:30 Fr.C1.1 On the use of microwave photonics techniques for novel sensing applications (*Invited*)
D. Sartiano, J. Hernández, J. Madrigal, D. Pérez-Galacho, and S. Sales
- 13:50 Fr.C1.2 Integrated microphotonic switching matrices for flexible and broadband telecom satellite payloads (*Invited*)
C. Ciminielli, F. Dell’Olio, G. Brunetti, A. Di Benedetto, and M. N. Armenise
- 14:10 Fr.C1.3 Reconfigurable and optically transparent graphene-based devices (*Invited*)
M. Grande, G. V. Blasco, F. Kashif, M. Scalora, G. Bruno, and A. D’Orazio
- 14:30 Fr.C1.4 Microwave photonic linear frequency networks (*Invited*)
G. Charalambous and S. Iezekiel

Coffee break (14:50-15:20)

THzP I Chairs: Guillermo Carpintero (15:20-17:00 Friday, July 12)

- 15:20 Fr.D1.1 Optical generation of mmW and THz signals using PICs (*Invited*)
P. D. Lakshminayashima, P. M. Anandarajah, D. G. Pascual, G. Jain, J. Braddell, P. Landais, and A. Kaszubowska-Anandarajah
- 15:40 Fr.D1.2 Photonic integrated chips for millimeter-wave and THz beam steering antennas (*Invited*)
P. Lu, M. Steeg, T. Haddad, K. Neophytou, S. Makhlouf, S. Dülme, M. Grzeslo, V. Rymanov, and A. Stöhr
- 16:00 Fr.D1.3 New opportunities in quasi-optical materials characterization in far infrared region (*Invited*)
Y. Yashchivshyn and K. Godziszewski
- 16:20 Fr.D1.4 Terahertz modulation by Schottky junction in metal-semiconductor-metal microcavities (*Invited*)
G. Isić, G. Sinatkas, D. C. Zografopoulos, B. Vasić, A. Ferraro, R. Beccarelli, E. E. Kriezis, and M. Belić
- 16:40 Fr.D1.5 Materials for nonlinear optics in the GHz-THz range (*Invited*)
A. Apostolakis and M. F. Pereira

THzP II Chair: Andreas Stöhr (8:30-9:45 Saturday, July 13)

- 8:30 Sa.A1.1 Applications of terajet effect for terahertz photonics (*Invited*)
I. V. Minin and O. V. Minin
- 8:50 Sa.A1.2 A semi-analytical approach for performance evaluation of RTD-based oscillators (*Invited*)
R. Nobrega, U. Duarte, T. Raddo, I. Glesk, A. Sanches, and M. Loiola
- 9:10 Sa.A1.3 Compact and tunable room temperature THz source from quantum dot based ultrafast photoconductive antennae (*Invited*)
E. U. Rafailov, T. Gric, A. Gorodetsky, and N. Baviaze
- 9:30 Sa.A1.4 W-band heterodyne wireless system with 2.3 GHz intermediate frequency driven entirely by ErAs:In(AI)GaAs photoconductors
A. de Jesus Fernandez Olvera, A. Morales, Yunfeng Dong, D. Konstantiou, S. Rommel, T. Johansen, C. Okonkwo, I. Tafur Monroy, and S. Preu

Break (9:45-10:00)

SDM-WDM Chair: Marian Marciniak (10:00-11:20 Saturday, July 13)

- 10:00 Sa.B1.1 Few-mode fiber true time delay lines (*Invited*)
S. Garcia, R. Guillen, and I. Gasulla
- 10:20 Sa.B1.2 Scanning-based chromatic dispersion estimation in mode-multiplexed optical systems (*Invited*)
R. S. B. Ospina, L. F. dos Santos, D. A. A. Mello, and F. M. Ferreira
- 10:40 Sa.B1.3 Multi-granular optical networks based on SDM technologies (*Invited*)
Y. Hirota, R. S. Luis, H. Furukawa, and N. Wada
- 11:00 Sa.B1.4 Power efficient fine spectral compression for high resolution optical quantization based on intensity-to-lambda conversion (*Invited*)
T. Konishi, Y. Kaihori, and Y. Yamasaki

Coffee break (11:20-12:00)

Track 2 – Hall L002

OWW I Chair: Mike Wolf (9:10-11:10 Wednesday, July 10)

- 9:10 We.B2.1 TOWS: Introducing optical wireless for satellites (*Invited*)
E. Ciaramella, G. Cossu, E. Ertunc, L. Gili, A. Messa, M. Rannello, M. Sturniolo, F. Bresciani, and E. Pensa



R u d e r B o š k o v ić I n s t i t u t e

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Jordi Sancho Parramon
Laboratory for Optics and Optical Thin Films
Division of Materials Physics
Ruder Bošković Institute
Bijenička cesta 54
10000 Zagreb (Croatia)

Dr. Goran Isić
Institute of Physics
Pregrevica 118
11080 Belgrade, Serbia

Zagreb, August 2nd, 2021

Dear dr. Goran Isić,

It is my pleasure to welcome you to visit the Laboratory of Optics and Optical Thin Films of the Ruder Bošković Institute on August 12th and 13th and give an invited talk on "Nanometer thin photovoltaics based on plasmonically enhanced van der Waals heterostructures" and present the ongoing work on the PV-Waals PROMIS project.

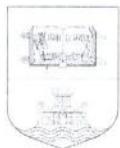
I believe that your talk will make a valuable contribution and that your visit will strengthen the on-going collaboration between our institutions. We thank you for accepting this invitation and look forward to see you in Zagreb.

Sincerely,

Jordi Sancho Parramon
Head of Laboratory for Optics and Optical Thin Films

Прилог:

Решење о признавању докторске дипломе



УНИВЕРЗИТЕТ У БЕОГРАДУ

Адреса: Студентски трг 1, 11000 Београд, Република Србија
Тел.: 011 3207400; Факс: 011 2638818; E-mail: officebu@rect.bg.ac.rs

Београд, 06.07.2012.
Број: 06-613-19341/3-12
ВМ

На основу члана 104. став 5. Закона о високом образовању (“Службени гласник РС”, бр. 76/05, 100/07-аутентично тумачење и 97/08), члана 9. Правилника о признавању страних високошколских исправа (“Гласник Универзитета у Београду” бр. 129/06 и 145/08) и одлуке Комисије Универзитета за признавање страних високошколских исправа бр. 06-613-19341/2-12, од 05.07.2012. године, доносим

РЕШЕЊЕ

ПРИЗНАЈЕ СЕ високошколска исправа School of Electronic and Electrical Engineering, Универзитет у Лидсу, Велика Британија, од 14.11.2011. године, на којем је Горан (Милорад) Исић стекао образовање, као диплома докторских академских студија (доктор наука – електротехника и рачунарство, 180 ЕСПБ).

Образложење

Универзитету у Београду и Електротехничком факултету обратио се Горан (Милорад) Исић, рођен 29.03.1982. године у Суботици, Република Србија, захтевом за признавање дипломе School of Electronic and Electrical Engineering, Универзитет у Лидсу, Велика Британија, на којем је именован стекао образовање.

Стручни органи Факултета размотрели су све списе предмета и предложили Комисији Универзитета доношење одлуке којом се предметна диплома признаје као диплома докторских академских студија (доктор наука – електротехника и рачунарство), што је Комисија и прихватила.

ПОУКА О ПРАВНОМ ЛЕКУ:

Ово решење је коначно у управном поступку, па се против њега може покренути управни спор код Управног суда, у року од 30 дана од дана пријема решења.



**GRB UNIVERZITETA
UNIVERZITET LEEDS
TITULA DOKTORA NAUKA**

**Kojom se potvrđuje da je
GORAN ISIĆ**

**Stekao titulu Doktora nauka
Na ovom Univerzitetu
Četrnaestog dana novembra 2011**

Logo Leeds

Zamenik rektora
Potpis

Sekretar Univerziteta
Potpis

I, the undersigned Permanent Sworn-to-the County Court Interpreter for English Language in Belgrade, hereby confirm that the above translation written into English language and the original certificate written into Serbian Language are identical in meaning. Belgrade, January 14th 2012.

Appointed by
Decree No: 740-06-2/2000-04
Issued by the Ministry of Justice,
Republic of Serbia, Belgrade

Address: Glavna 24, Zemun,
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Translated by:
Susana Andjelkovic, M.Sc.



UNIVERZITET LEEDS

Dodatak diplomi i izjava

Ime:	GORAN ISIC	Titula:	Doktor nauka
Datum rođenja:	29.03.1982	Klasifikacija:	Pass
Broj identifikacije:	200189682	Datum doktoriranja:	14.11.2011
Broj HESA	0711242028401		
Datum prijema:	01.10.2007		
Datum završetka:	14.11.2011		
Status pri napuštanju:	Uspešan završetak		

Naziv konačne teze: "*Transport elektrona u rezonatnim tunelskim strukturama sa spin-orbitalnom interakcijom*".

Rezultati Nivo Krediti ECTS

**Program prve godine doktorskih studija:
Elektronika i elektrotehnika 2007/08 (redovan student)**

**Program prve godine doktorskih studija:
Elektronika i elektrotehnika 2008/09 (redovan student)**

**Program prve godine doktorskih studija:
Elektronika i elektrotehnika 2009/10 (redovan student)**

**Program prve godine doktorskih studija:
Elektronika i elektrotehnika 2010/11 (prekovremeno, istraživačke studije)**

Kraj

Logo Leeds

Zamenik rektora
Potpis

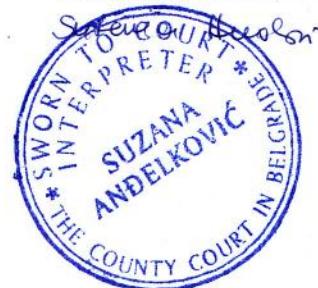
Sekretar Univerziteta
Potpis

I, the undersigned Permanent Sworn-to-the County Court Interpreter for English Language in Belgrade, hereby confirm that the above translation written into English language and the original certificate written into Serbian Language are identical in meaning. Belgrade, January 14th 2012.

Appointed by
Decree No: 740-06-2/2000-04
Issued by the Ministry of Justice,
Republic of Serbia, Belgrade

Translated by:
Susana Andjelkovic, M.Sc.

Address: Glavna 24, Zemun,
Home no: (+381) 11 2194 773,
Mobile: (+381) 63 337 877
E-mail address: suzaandj@eunet.rs





The University of Leeds

DEGREE OF DOCTOR OF PHILOSOPHY

It is hereby certified that

Goran Isić

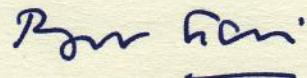
was admitted to the degree of Doctor of Philosophy
in this University

on the fourteenth day of November 2011





VICE-CHANCELLOR


Ronan

UNIVERSITY SECRETARY

THE UNIVERSITY OF LEEDS

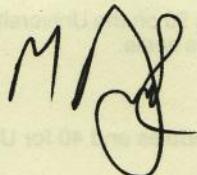
Diploma Supplement and Statement

Name	Goran Isić	Award:	Doctor of Philosophy
Date of Birth	29-Mar-1982	Classification:	Pass
Identification No	200289682	Date awarded:	14-Nov-2011
HESA No	0711242028401		
Date of Admission	01-Oct-2007		
Date of Leaving	14-Nov-2011		
Status at Leaving	Successful Completion		

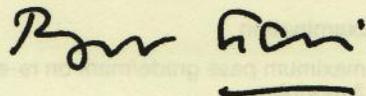
Final Thesis Title: Electron transport in resonant tunnelling structures with spin-orbit interaction

	Results	Level	Credits	ECTS
Programme Year 1 PHP Electronic And Electrical Engineering 2007/08 (Full-time study)				
Programme Year 2 PhD Electronic And Electrical Engineering 2008/09 (Full-time study)				
Programme Year 3 PhD Electronic And Electrical Engineering 2009/10 (Full-time study)				
Programme Year 4 PhD Electronic And Electrical Engineering 2010/11 (Overtime (Research) study)				

End



Vice-Chancellor



University Secretary

THE UNIVERSITY OF LEEDS

Diploma Supplement and Statement



Interpretation of Statement Information for Postgraduate Research Degrees

The information given overleaf is provided by the University*, under the terms of the Data Protection Act 1998, from its student records system as the academic and identifying personal information recorded for the student named. When issued with an appended *General Description of the Arrangements and Requirements for Postgraduate Research Degrees at The University of Leeds* it comprises a Diploma Supplement and Statement. The Diploma Supplement is a European initiative designed to provide a description of the nature, level, context, content and status of the studies pursued and successfully completed by the individual named on a formal Higher Education degree or award certificate. *The General Description provided by the University includes the information given in the national Description of Higher Education in England, Wales and Northern Ireland* provided by the National Recognition Information Centre for the United Kingdom (UK NARIC).

The University issues its full Diploma Supplement and Statement solely to students who commenced study in or after the academic year 2003-04 and who have completed the requirements for the award of one of its research degrees. The statement information alone is provided to students who either

- a) are currently pursuing study and research leading to a research degree of this University and who have not yet completed the requirements for an award, or
- b) have undertaken postgraduate studies and research in the University which did not lead to the award of a research degree or other postgraduate qualification by the University.

The University's programmes leading to the award of a named research degree comprise study and research of an approved subject within an academic or professional discipline which culminate in the presentation of a thesis for examination, and the defence of that thesis, through oral examination. The thesis and performance in the oral examination is assessed on a pass/fail basis. The degree of Master of Philosophy, or a Masters [MA, MEd, MSc, MSc(Eng) or MDS] Degree by research may be awarded with distinction where the candidate's work is of exceptional merit. The degree of Doctor of Medicine may be awarded with distinction or with commendation to candidates who commenced study and research before September 2007.

The requirements for study and research in each 'programme year' and the requirements and learning outcomes to be achieved for the award of a research degree are laid down in the individual programme of study published in the University's *Ordinances and Regulations and Programmes of Study for Research Degrees* published at <http://www.leeds.ac.uk/calendar/ordinances.htm> and/or <http://www.leeds.ac.uk/rsa>

Individual programmes of study and research may also include generic research training and/or the study of taught modules. A taught module is a self-contained unit of teaching, learning and assessment. Each module has a credit weighting which depends upon the proportion of their time that students are expected to devote to the module. Modules are assigned levels - levels 0, 1, 2 or 3 for modules with learning outcomes associated with the University's First Degree and Other Undergraduate programmes; level M for modules with learning outcomes associated with the University's Taught Postgraduate programmes.

For Postgraduate Research Degree Awards: a 'programme year' is defined as the study and research a full-time student is required to complete in one calendar year which is equivalent to a total of at least 180 credits (90 ECTS credits). The appropriate credits are awarded for the successful completion of individual taught modules. When the full programme of study and research required for the award of a research degree is successfully completed a total of at least 180 credits (90 ECTS) is awarded for each programme year which includes any credits awarded for the completion of any individual modules which may be included in that programme.

Students studying on a part-time or interrupted full-time study basis complete each of the number of programme years required by their programme of study and research over a longer period than full-time students.

Grading/Marking of Taught Modules

Numeric Scale

All numeric results on the statement information overleaf are shown in the University's 0-100 scale. All assessed work is marked according to the achievement demonstrated by the student.

Non-Numeric Codes

The following non-numeric codes may appear on a student statement:

- AB - signifies that the student was absent from the whole examination/failed to submit the totality of the assessed work required for a module irrespective of whether this action was deliberate or not. If unredeemed on a further examination allowed as a first attempt or on re-examination this code translates to 0 for award/classification purposes.
- P - denotes a pass in a study abroad or work/clinical placement module which is being marked on a pass/fail basis.
- F - denotes a fail in a study abroad or work/clinical placement module which is being marked on a pass/fail basis.
- INC - denotes assessment incomplete

Minimum Pass Grade/Mark for Taught Modules

Unless otherwise stated the minimum pass grade for Postgraduate level M modules is 50 on the University's scale. The minimum pass grade/mark for Undergraduate level 0, 1, 2 or 3 modules is 40 on the University's scale.

Re-Examination

The maximum pass grade/mark on re-examination is 50 for Postgraduate level M modules and 40 for Undergraduate level 0, 1, 2 or 3 modules.

* or one of its accredited institutions

Прилог:

Решење о избору у звање виши научни сарадник

Република Србија
МИНИСТАРСТВО ПРОСВЕТЕ,
НАУКЕ И ТЕХНОЛОШКОГ РАЗВОЈА
Комисија за стицање научних звања

Број: 660-01-00006/367

28.02.2018. године

Београд

ПРИМЛЕНО: 10 -04- 2018			
Ред.јед.	бр.ој	Арх.шифра	Прилог
0901	495/1		

На основу члана 22. став 2. члана 70. став 5. Закона о научноистраживачкој делатности ("Службени гласник Републике Србије", број 110/05, 50/06 – исправка, 18/10 и 112/15), члана 3. ст. 1. и 3. и члана 40. Правилника о поступку, начину вредновања и квантитативном исказивању научноистраживачких резултата истраживача ("Службени гласник Републике Србије", број 24/16, 21/17 и 38/17) и захтева који је поднео

Инситушаш за физику у Београду

Комисија за стицање научних звања на седници одржаној 28.02.2018. године, донела је

**ОДЛУКУ
О СТИЦАЊУ НАУЧНОГ ЗВАЊА**

Др Горан Исић

стиче научно звање

Виши научни сарадник

у области природно-математичких наука - физика

ОБРАЗЛОЖЕЊЕ

Инситушаш за физику у Београду

утврдио је предлог број 771/1 од 06.06.2017. године на седници Научног већа Института и поднео захтев Комисији за стицање научних звања број 816/1 од 14.06.2017. године за доношење одлуке о испуњености услова за стицање научног звања *Виши научни сарадник*.

Комисија за стицање научних звања је по претходно прибављеном позитивном мишљењу Матичног научног одбора за физику на седници одржаној 28.02.2018. године разматрала захтев и утврдила да именовани испуњава услове из члана 70. став 5. Закона о научноистраживачкој делатности ("Службени гласник Републике Србије", број 110/05, 50/06 – исправка, 18/10 и 112/15), члана 3. ст. 1. и 3. и члана 40. Правилника о поступку, начину вредновања и квантитативном исказивању научноистраживачких резултата истраживача ("Службени гласник Републике Србије", број 24/16, 21/17 и 38/17) за стицање научног звања *Виши научни сарадник*, па је одлучила као у изреци ове одлуке.

Доношењем ове одлуке именовани стиче сва права која му на основу ње по закону припадају.

Одлуку доставити подносиоцу захтева, именованом и архиви Министарства просвете, науке и технолошког развоја у Београду.

ПРЕДСЕДНИК КОМИСИЈЕ
С. Стојановић-Грујић
Др Станијлава Стојановић-Грујићић,
научни саветник

МИНИСТАР
Младен Шарчевић
Младен Шарчевић