Curriculum Vitae

Aleksandar Atić

Institute of Nuclear Sciences "Vinča"
University of Belgrade
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General information

Date of birth:	18/11/1992
Place of birth:	Belgrade, Republic of Serbia
Age:	33
Citizenship:	Republic of Serbia

Research field

semiconductor devices, quantum cascade lasers, resonant tunneling diode, Schrödinger-Poisson self-consistent solver, ZnO material, Ga_2O_3 material, terahertz emitters, Electronic structure

Education – University of Belgrade, Belgrade, Serbia

2019 – 2025 PhD Studies, School of Electrical Engineering, Nanoelectronics and photonics module
Thesis: Modeling of quantum nanostructures based on wide bandgap oxide semiconductors
Supervisors: dr Jelena Radovanović, dr Nikola Vuković
GPA 10.0 (out of 10)

2016 – 2019 Master degree, School of Electrical Engineering, Nanoelectronics and photonics module Thesis: Modeling of quantum cascade laser based on ZnO/ZnMgO
Supervisor: dr Jelena Radovanović
GPA 8.83 (out of 10)

2011 – 2016 Bachelor degree, School of Electrical Engineering, Nanoelectronics, optoelectronics and laser engineering module
Thesis: Modulation of the refractive index of a semiconductor quantum well using the supersymmetric quantum mechanical transformation
Supervisor: dr Jelena Radovanović
GPA 8.20 (out of 10)

Employment – Laboratory of Atomic Physics, Institute of Nuclear Sciences "Vinča", Serbia

2023 – current Research Assistant
2019 – 2023 Junior Research Assistant

List of publications

1. **A.Atić**, X.Wang, N.Vuković, N.Stanojević, A.Demić, D.Indjin, J.Радовановић, „Resonant Tunnelling and Intersubband Optical Properties of ZnO/ZnMgO Semiconductor Heterostructures: Impact of Doping and Layer Structure Variation", MATERIALS, Vol. 17, No. 4, p. 927, Feb, 2024 (**IF=3.1**) (eISSN: 1996-1944) (DOI: 10.3390/ma17040927

2. **A. Atić**, N.Vuković, J. Radovanović, „Calculation of intersubband absorption in ZnO/ZnMgO asymmetric double quantum wells", OPTICAL AND QUANTUM ELECTRONICS, Vol. 54, No. 12, p. 810, Sep, 2022 (**IF=3.0**) (ISSN: 1572-817X)(DOI: 10.1007/s11082-022-04170-0)

3. N. Vuković, M. Ignjatović, N. Stanojević, A. Demić, **A. Atić**, A. Milićević, N. Basta, F. Perišić, M. Stojković, D. Indjin, J. Radovanović, „Modelling of THz quantum cascade laser dynamics". 18th Photonics Workshop (Conference): book of abstracts; March 16-20, 2025; Kopaonik. 2025, p.53 (ISBN 978-86-82441-71-7)

4. N. Vukovic, N. Stanojević, A. Demić, **A. Atić**, X. Wang, M. Ignjatović, N. Basta, D. Indjin, J. Radovanović, „Optical and transport properties of THz quantum cascade heterostructures", Book of Abstracts/ 17th Photonics Workshop, (Conference), pp. 14 - 14, Institute of Physics Belgrade, Kopaonik, Mar, 2024 (ISBN 978-86-82441-62-5)

5. **A.Atić**, N. Vuković, J. Radovanović, „Investigation of intersubband transitions in wide bandgap oxide quantum well structures for optoelectronic device applications", Book of Abstracts p. 100, IX International School and Conference on Photonics – PHOTONICA 2023, Belgrade, August 28-September 01, 2023. (ISBN 978-86-7306-165-8)

6. N.Vuković, **A.Atić**, N. Stanojević, X. Wang, A. Demić, D. Indjin, J. Radovanović, „Modeling of optical propreties of novel terahertz photonics quantum well heterostructures", Book of Abstracts p. 38, 16th Photonics Workshop, Kopaonik, March 12-15, 2023. (ISBN 978-86-82441-59-5)

7. **A.Atić**, J.Radovanović, N.Vuković, „Numerical modeling of new oxide-based heterostructures for use in QCL devices", Book of Abstracts p. 16/ 15th Photonics Workshop, (Conference), Institute of Physics Belgrade, Kopaonik, Mar, 2022. (ISBN 978-86-82441-55-7)

8. **A. Atić**, J. Radovanović, N. Vuković, „Modeling of intersubband transitions in ZnO/ZnMgO Coupled Quantum Wells", VIII International School and Conference on Photonics – PHOTONICA2021 Devices and components, August 23-27, 2021, Belgrade, Serbia, Book of Abstracts p.118, 2021 (ISBN 978-86-82441-53-3)

9. **A. Atić**, J. Radovanović, V. Milanović, „Modeling of the optical gain in ZnO-based quantum cascade lasers", Eighteenth Young Researchers Conference, Materials Science and Engineering December 4-6, 2019, Belgrade, Serbia, Book of Abstracts, p. 31, 2019. (ISBN 978-86-80321-35-6)

Number of citation and h-index

Web of Science:

Citation number	5
h-index	1

Google Scholar:

Citation number	13
h-index	2

National projects

2023 – 2025 *Ultra-Short Pulsations from TERAhertz Quantum Cascade Laser Using Passive Mode-LOCKing with Graphene Saturable Absorber"– TERALOCK* (10504), funded by Science Fund of the Republic of Serbia

International projects

2022 – 2026 Understanding interaction light - biological surfaces: possibility for new electronic materials and Devices (PhoBioS / CA21159)

Language skills

Serbian – native speaker
English – C2 Proficiency (Cambridge English: Proficiency)
German – limited working proficiency

Memberships

Optical Society of Serbia

Computer skills

Operating systems:	Windows, Xubuntu, Linux mint
Office:	Microsoft Word, Excel, Powerpoint
Computer languages:	Wolfram Mathematica, MATLAB, VHDL, Xilinx ISE, COMSOL Multiphysics, Electric VLSI Design System, Altium Designer, Maxima, PCB Artist, LabView, C, Python and Pascal