

PERSONAL INFORMATION

Date of birth: 02.04.1995

Place of birth: Goris, Syunik region, Armenia

Place of residence: St. Leningradyan 31/2, apt. 2, Yerevan, Armenia

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EDUCATION

2013-2017, Bachelor, Electronics and Nanoelectronics, Department of General Physics and Quantum nanostructures, Russian-Armenian University, Yerevan, Armenia

2017-2019, Master student, Electronics and Nanoelectronics, Department of General Physics and Quantum nanostructures, Russian-Armenian University, Yerevan, Armenia

2019-..., PhD student, Semiconductor Physics, Department of General Physics and Quantum nanostructures, Russian-Armenian University, Yerevan, Armenia

2021, PhD student, Engineering Faculty, Department of Applied Physics and Photonics, Vrije Universiteit Brussel, Brussels, Belgium

LANGUAGE PROFICIENCY

- Native: Armenian (fluent)
- Second: Russian (fluent)
- Foreign: English (good)

WORK EXPERIENCE

- 2019-..., Consultant in Wolfram Research (Group: Sound & Vision, Department: Algorithms R&D)
- 2018-..., Junior Laboratory Assistant in Russian-Armenian University (Lab: Mathematical Modeling of Quantum Nanostructures, Department: General Physics and Quantum Nanostructures)

MEMBERSHIPS

- 2017 - ..., RAU & NAS SPIE Student Chapter
- 2018 - 2019, Vice-President of RAU & NAS SPIE Student Chapter
- 2019 - 2020, President of RAU & NAS SPIE Student Chapter

AWARDS

- 2018, Kocharyants Scholarship (best Master student) in Russian-Armenian University

GRANTS

- 2021, International Joint Research Projects Support Program "RA MESCS SC-RFBR-2020"

CONFERENCES AND SCHOOLS

- Armenian Wolfram Technology Conference, Russian-Armenian University, Yerevan, Armenia, 2017
- Joint International Conference on Astrophysics for Young Scientists, Byurakan Astrophysical Observatory, Byurakan, Armenia, 2017
- International School on Metamaterials and Nanotechnologies ISMENA-2017, December, Tsaghkadzor, Armenia, 2017
- 1th International Summer School on Optics & Photonics (ISOP-2019), Yerevan, Armenia (Organizer)
- 1th International conference Laser Physics, Ashtarak, Armenia, 2019 (Poster Presentation)
- Armenian Wolfram Technology Conference, Dilijan, Armenia, 2019 (Organizer)
- SPIE Photonics Europe Digital Forum, Strasbourg, France, 2020 (Poster Presentation)
- International Youth Conference on Electronics, Telecommunications and Information Technologies (YETI-2020), Saint Petersburg, Russia, 2020 (Poster Presentation)

PUBLICATIONS

- V.A. Harutyunyan, M.A. Mkrtchyan, E.M. Kazaryan, D.B. Hayrapetyan. Interband Absorption and Photoluminescence in Nanospherical InP/InAs/InP Core/Shell/Shell Heterostructure. **Journal of Contemporary Physics (Armenian Academy of Sciences)**, 54(1), 33–45, 2019.
- M.A. Mkrtchyan, E.M. Kazaryan, D.B. Hayrapetyan, H.A. Sarkisyan. Optical parameters of coupled vertical cylindrical quantum dots with double modified Pöschl-Teller potential in terahertz range. Proceedings 11345, **Nanophotonics VIII**, 113452B, 2020.
- D.B. Hayrapetyan, E.M. Kazaryan, M.A. Mkrtchyan, H.A. Sarkisyan. Long-wave Absorption of Few-Hole Gas in Prolate Ellipsoidal Ge/Si Quantum Dot: Implementation of Analytically Solvable Moshinsky Model. **Nanomaterials**, 10(10), 1896, 2020.
- M.A. Mkrtchyan, D.B. Hayrapetyan, E.M. Kazaryan, H.A. Sarkisyan, D.A. Firsov, M.Y. Vinnichenko. Implementation of Moshinsky Atom Model for Electron Gas in Quantum Dots. **In International Youth Conference on Electronics, Telecommunications and Information Technologies Springer**, Cham, 169-175, 2021.
- T.A. Sargsian, M.A. Mkrtchyan, H.A. Sarkisyan, D.B. Hayrapetyan. Effects of external electric and magnetic fields on the linear and nonlinear optical properties of InAs cylindrical quantum dot with modified Pöschl-Teller and Morse confinement potentials. **Physica E: Low-dimensional Systems and Nanostructures**, 126, 114440, 2021.