



Name	Oleksii Poluboiarov
Position, Department/Faculty	Assistant Professor, Department of Physics, Faculty of Radio Electronics, Computer Systems and Infocommunications
Academic Degree, Academic Title	Candidate of Technical Sciences (Ph. D.)
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Scopus Author ID:	57188717339
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ORCID ID:	0000-0002-8587-8669
Google Scholar:	https://scholar.google.com/citations?user=Ww_hcy0AAAAAJ&hl=uk
ResearchGate:	https://www.researchgate.net/profile/Oleksii-Poluboiarov

EDUCATION:

Basic education (university, major, year of graduation):

V. N. Karazin Kharkiv National University, Kharkiv (Ukraine), 2009.

Faculty of Radiophysics, Biomedical Electronics and Computer Systems, Theoretical Radiophysics Department

Master's Degree on Radiophysics and electronics with honors.

Postgraduate/Doctoral studies:

Postgraduate studentship in Institute for Single Crystals of NAS of Ukraine, 2010 – 2013.

WORK EXPERIENCE:

Professional Career (Workplace, Years, Position):

Institute for Single Crystals of NAS of Ukraine, Kharkiv (Ukraine), 2009 – 2020, Engineer, Department of laser and semiconductor crystals

National Aerospace University “Kharkiv Aviation Institute”, Kharkiv (Ukraine), 2020 – present, Assistant Professor, Department of Physics, Faculty of Radio Electronics, Computer Systems and Infocommunications

Teaching Experience:

National Aerospace University “Kharkiv Aviation Institute”, Kharkiv (Ukraine), 2020 – present, Assistant Professor, Department of Physics, Faculty of Radio Electronics, Computer Systems and Infocommunications

RESEARCH ACTIVITIES:

Main Research Areas:

Influence of intrinsic structural defects on the electrical, photoelectric and spectrometric properties of $A^{II}B^{VI}$ semiconductor crystals, modification of the electrophysical properties of semiconductor crystals

Number of Publications (Scopus, WoS, others):

5

Monographs, Textbooks:

Чугай О.М., Олійник С.В., Колесник В.П., Полубояров О.О., Слюсар Д.В., Сулима С.В., Волошин О.О. Діелектричні, оптичні та фотоелектричні властивості кристалів $A^{II}B^{VI}$, вирощених з розплаву: монографія. – Харків : Нац. аерокосм. ун-т ім. М.Є. Жуковського «Харків. авіац. ін-т», 2021. – 191 с. <http://dspace.library.khai.edu/xmlui/handle/123456789/7742>

Oleg Chugai, Oleksii Poluboiarov, Serhii Oliinyk, Sergei Sulima. Scanning Photodielectric Spectroscopy of CdZnTe Crystals. In: Krishnamoorthy, S., Iniewski, K.(. (eds) Advances in Fabrication and Investigation of Nanomaterials for Industrial Applications . Springer, Cham. https://doi.org/10.1007/978-3-031-42700-8_6

Фізика [Електронний ресурс] : навч. посіб. до лаб. практикуму / І. В. Луньов, І. А. Клименко, С. В. Олійник, О. О. Полубояров, А. О. Таран, О. М. Чугай. – Харків : Нац. аерокосм. ун-т «Харків. авіац. ін-т», 2024. – 151 с.

Participation in Scientific Conferences:

О. Полубояров, О. Чугай, С. Олійник. Вплив електромагнітного випромінювання надвисокої частоти на діелектричні властивості кристалів $Cd_{1-x}Zn_xTe$. IX українська наукова конференція з фізики напівпровідників УНКФН–9. – 2023. – С. 81.

О.О. Полубояров, О.М. Чугай, Ю.А. Волошин. Скануюча фотодіелектрична спектроскопія кристалів CdZnTe: нові дані про локалізовані стани носіїв заряду. X українська наукова конференція з фізики напівпровідників УНКФН–10. – 2025. – С. 390.

TEACHING ACTIVITIES:

Courses Taught:

Physics, Physics for junior bachelors, Physics for preparatory department

Methodological Materials, Textbooks:

Фізика [Електронний ресурс] : навч. посіб. до лаб. практикуму / І. В. Луньов, І. А. Клименко, С. В. Олійник, О. О. Полубояров, А. О. Таран, О. М. Чугай. – Харків : Нац. аерокосм. ун-т «Харків. авіац. ін-т», 2024. – 151 с.

GRANTS AND PROJECTS:

Participation in International and National Projects:

Development of technology for obtaining and methods for diagnosing material for radiation detectors

PROFESSIONAL ACHIEVEMENTS AND AWARDS:

Distinctions, Awards, Prizes:

Award for young scientists of NASU of Ukraine, 2017





Membership in Professional Associations:

Member of Ukrainian Scientific IT Society

SELECTED PUBLICATIONS:

Key Articles (Scopus, WoS, others):

O.M. Chugai, O.O. Poluboiarov, S.V. Oliinyk, O.O. Voloshyn, R.V. Zaitsev, M.V. Kirichenko. Macroscopic Inhomogeneities of Optical, Dielectric, and Photodielectric Properties of ZnSe Crystals. Aerospace Technic and Technology, 2020, No 6(166), cc. 54–60.

<https://doi.org/10.32620/aktt.2020.6.06>

Oleg Chugai, Oleksii Poluboiarov, Sergey Oleynick, Sergei Sulima, Oleksii Voloshin, Roman Zaitsev, Mykhailo Kirichenko, Scanning photodielectric spectroscopy of CdZnTe crystals under additional non-monochromatic illumination, Sensors and Actuators A: Physical, Volume 328, 2021, 112772.

<https://doi.org/10.1016/j.sna.2021.112772>

O. Poluboiarov, O. Chugai, S. Oliinyk, D. Sliusar, S. Sulima. Effect of low-dose-rate ionizing radiation on the complex dielectric permittivity of CdZnTe crystals, Lithuanian Journal of Physics, Vol 63 No. 1, pp. 35–39 (2023) <https://doi.org/10.3952/physics.2023.63.1.5>

O. M. Chugai, S. V. Oliinyk, Yu. A. Voloshyn, S. M. Kulish, I. V. Luniov, and O. O. Poluboiarov, *Effect of microwave radiation on the dielectric properties of Cd_{1-x}Zn_xTe crystals*, Low Temp. Phys. 51, (2025) [Fiz. Nyzk. Temp. 51, 1472–1477, (2025)].

Sliusar D., Chugai O., Kolodiy I., Oliinyk S., Voloshyn Y., Poluboiarov O., Kulish S. Composition, Structure And Microhardness Of Multicomponent Tungsten Carbide Based Coatings Formed Using the Inverse Magnetron Sputtering System. Radiotekhnika, No.222 (2025).

Books, Chapters in Collective Monographs:

Oleg Chugai, Oleksii Poluboiarov, Serhii Oliinyk, Sergei Sulima. Scanning Photodielectric Spectroscopy of CdZnTe Crystals. In: Krishnamoorthy, S., Iniewski, K. (eds) Advances in Fabrication and Investigation of Nanomaterials for Industrial Applications . Springer, Cham. https://doi.org/10.1007/978-3-031-42700-8_6

Links to Citation Database Profiles:

Scopus <https://www.scopus.com/authid/detail.uri?authorId=58558782100>

Google Scholar https://scholar.google.com/citations?user=Ww_hcy0AAAAJ&hl=uk

Web of Science <https://www.webofscience.com/wos/author/record/OBO-8711-2025>

ORCID orcid <https://orcid.org/0000-0002-8587-8669>

ADDITIONAL INFORMATION:

Language Proficiency:

Ukrainian, Russian – Mother Tongue – Native Speaker; English – B2 level – Upper Intermediate; Czech, Deutsch – A1 level – Elementary.

IT Skills:

Microsoft Office: Word, Excel, Power Point, Outlook; Adobe Photoshop, Lightroom.

Basic skills in C++, Delphi, HTML, CSS, JavaScript, Python and network administration.

Special toolkits: Origin, MathCad, MathLab, HFSS.

Hardware assembling, installation, setup and maintenance of software.





Social and Community Activities:

Participation in volunteer programs and popular science events.



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