



Petro Lytvyn

Date of birth: 24/09/1971 | **Nationality:** Ukrainian | **Phone number:**

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Address: Kustanajska, 11, ap. 55, 03118, Kyiv, Ukraine (Home)

WORK EXPERIENCE

2022 – CURRENT Kyiv, Ukraine

HEAD OF THE DEPARTMENT INSTITUTE OF SEMICONDUCTOR PHYSICS OF THE NATIONAL ACADEMY OF SCIENCES OF UKRAINE.

Dr. Lytvyn possesses extensive experience in the field of SPM diagnostics, applied to a broad array of device structures. His expertise extends to technology optimization and probing into the physical processes essential for ensuring the quality and reliability of semiconductor devices. His research has yielded significant scientific advancements in the enhancement of both single and multilayer nanostructures, utilizing materials such as Si-Ge, GeSn, ZnO, SiC, InN, InGaAs, and AlGaN. Dr. Lytvyn's exceptional contributions to the field have been acknowledged through prestigious accolades, including the National Academy of Sciences of Ukraine Prize in 2018 for outstanding research in semiconductor physics and devices, and the Cabinet of Ministers of Ukraine Prize in 2020 for his role in developing and implementing innovative technologies in optical aiming, guidance, and remote sensing systems. His proficiency is further underscored by his adept utilization of the advanced SPM facilities and other diagnostic instruments like XRD, RS, SIMS available in the department.

Address 41, Nauky pr., office 105, 03028, Kyiv, Ukraine

2017 – 2022 Kyiv, Ukraine

HEAD OF EQUIPMENT SHARING CENTER INSTITUTE OF SEMICONDUCTOR PHYSICS OF THE NATIONAL ACADEMY OF SCIENCES OF UKRAINE.

Address 41, Nauky pr., office 108, 03028, Kyiv, Ukraine

2000 – 2017

SENIOR RESEARCHER INSTITUTE OF SEMICONDUCTOR PHYSICS OF THE NATIONAL ACADEMY OF SCIENCES OF UKRAINE.

1997 – 2000

RESEARCHER INSTITUTE OF SEMICONDUCTOR PHYSICS OF THE NATIONAL ACADEMY OF SCIENCES OF UKRAINE.

JUNIOR RESEARCHER INSTITUTE OF SEMICONDUCTOR PHYSICS OF THE NATIONAL ACADEMY OF SCIENCES OF UKRAINE.

EDUCATION AND TRAINING

1993 – 1996 Kyiv, Ukraine

CANDIDATE OF PHYSICAL AND MATHEMATICAL SCIENCES, SOLID STATE PHYSICS Institute of Semiconductor Physics of the National Academy of Sciences of Ukraine

Website <https://isp.kiev.ua/>

1988 – 1993 Ivano-Frankivsk, Ukraine

SPECIALIST IN PHYSICS WITH AN ADDITIONAL SPECIALIZATION IN MATHEMATICS. Vasyl Stefanyk Precarpathian University

Website <https://pnu.edu.ua/en/>

● **LANGUAGE SKILLS**

Mother tongue(s): **UKRAINIAN**
Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C1	C1	B2	B2	C1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

● **DIGITAL SKILLS**

Matlab/Simulink | COMSOL Multiphysics | 3D design | Arduino

● **DRIVING LICENCE**

Driving Licence: A1
Driving Licence: A
Driving Licence: B1
Driving Licence: B
Driving Licence: C1
Driving Licence: C

● **ADDITIONAL INFORMATION**

Scientific metrics

h-index=21; 377 articles published in scientific journals; 1986 citations in Scopus;
Scopus ID: 35462421200, ORCID: 0000-0002-0131-9860;

Link https://scholar.google.com/citations?hl=uk&user=2tgWcWEAAAAJ&view_op=list_works&sortby=pubdate

Selected publications

1. A. V Vasin, Y. V Gomeniuk, P.M. Lytvyn, A. V Rusavsky, S. V Mamykin, I.P. Tyagulsky, E. Bortchagovsky, Y. Havryliuk, S.I. Tiagulskyi, R. Yatskiv, J. Grym, D.R.T. Zahn, A.N. Nazarov, Structural insight into nanoscale inhomogeneity of electrical properties in highly conductive polycrystalline ZnO thin films doped using methane, J. Phys. D. Appl. Phys. 57 (2024) 155101. <https://doi.org/10.1088/1361-6463/ad1791>. (Q1)

2. V.S. Bilanych, O. Shylenko, S. Vorobiov, S. Soroka, V.V. Bilanych, V. Rizak, P.M. Lytvyn, V.Y. Loya, A. Feher, V. Komanicky, Evaluation of dynamics of charge accumulation and dissipation processes in Ge15Se85 thin film under electron beam irradiation by mapping surface potential distribution, Thin Solid Films. 789 (2024) 140162. <https://doi.org/10.1016/j.tsf.2023.140162>. (Q2)

3. Lytvyn P., Kuchuk A., Kondratenko S., Stanchu H., Malyuta S. V, Yu S., Mazur YI, Salamo GJ Strain-driven anomalous elastic properties of GeSn thin films, Appl. Phys. Lett. 2023. Vol. 123, 2. <https://doi.org/10.1063/5.0149098>. (Q1)

4. V.S. Bilanych, O. Shylenko, P.M. Lytvyn, V.V. Bilanych, V.M. Rizak, A. Feher, V. Komanicky, Electron-induced effects in Ge-Se films studied by Kelvin probe force microscopy, J. Non. Cryst. Solids. 601 (2023) 121964. <https://doi.org/10.1016/j.jnoncrysol.2022.121964>. (Q2)

5.de Oliveira FM, Kuchuk AV, Lytvyn PM, Romanitan C., Stanchu HV, Teodoro MD, Ware ME, Mazur YI, Salamo GJ Electron Accumulation Tuning by Surface-to-Volume Scaling of Nanostructured InN Grown on GaN (001) for Narrow-Bandgap Optoelectronics, ACS Appl. Nano Mater. 2023. Vol. 6, 9. P. 7582–7592. <https://doi.org/10.1021/acsanm.3c00732>. (Q1)

6.I. Indutnyi, V. Mynko, M. Sopinsky, P. Lytvyn, Plasmon-enhanced photostimulated diffusion in a thin-layer Ag–GeSe2 structure, J. Non. Cryst. Solids. 618 (2023) 122513. <https://doi.org/10.1016/j.jnoncrysol.2023.122513>. (Q2)

7.Grytsenko K., Kolomzarov Y., Lytvyn P., Kondratenko O., Sopinsky M., Lebedyeva I., Niemczyk A., Baranovska J., Moszyński D., Villringer C., Schrader S. Optical and Mechanical Properties of Thin PTFE Films, Deposited from a Gas Phase, Macromol . Mater. Eng. 2023. Vol. 308, 6. P. 2200617. <https://doi.org/10.1002/mame.202200617> (Q1)

8.Kuchuk AV, Lytvyn PM, Mazur YI, Stanchu H., Kondratenko SV, de Oliveira FM, Malyuta SV, Teodoro MD, Benamara M., Yu S.-Q., Salamo GJ Sn-guided self-grown Ge stripes banded by GeSn Nanowires: Formation mechanism and electric-field-induced switching from p- to n-type conduction, Appl. Surf. Sci. 2022. Vol. 604, P. 154443. <https://doi.org/10.1016/j.apsusc.2022.154443>. (Q1)

9. Lytvyn PM, Minor SP, Kuchuk AV, Kondratenko SV, Mazur YI, Maidaniuk Y., Benamara M., Ware ME, Wu S., Wang ZMZM, Salamo GJ Growth kinetics and nanoscale structure-property relationships of InN nanostructures on GaN (0 0 0 1), Appl. Surf. Sci. 2021. Vol. 537, P. 147997. <https://doi.org/10.1016/j.apsusc.2020.147997>. (Q1)