

Curriculum Vitae Pop M.

Personal data:

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Date of birth: 06.12.1982

Place of birth: Uzhhorod, Transcarpatian region (Zakarpattia oblast)

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Children: one (13 years old)

Web of Science
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High education:

09/2000-06/2005 Physicist (master of physics),
Faculty of Physics, Uzhhorod State University, Ukraine,

11/2007-09/2010 Post-graduate study (PhD) at semiconductor physics department of Uzhhorod State University, Uzhhorod, Ukraine.

Scientific degrees:

08/2016 Candidat of sciences (Ph.D. in Physics of Semiconductors and Dielectrics) at Uzhhorod National University, Uzhhorod, Ukraine,

Title of Ph.D. thesis: Spectrophotometric study of modified noncrystalline chalcogenides based on arsenic sulfide.

09/2016-09/2018 associate professor of semiconductor physics department of Uzhhorod National University, Uzhhorod, Ukraine

09/2018- associate professor of applied physics department of Uzhhorod National University, Uzhhorod, Ukraine

Lecture Activity

Lecture courses for students in Uzhhorod National University:

- Computer processing of information
- Optical properties of crystalline and non-crystalline materials
- Software for data processing of physical measurements
- Scientific, analytical and environmental instruments
- Technological basics of electronics
- Physics and technology of nanostructures

Main research interests:

Optical properties of crystalline and non-crystalline materials, Raman spectroscopy, FTIR spectroscopy.

Publications: 21 articles, 2 patents.

Influence of composition and temperature on the band gap of glassy melts $\text{As}_2\text{S}_3\text{--Sb}_2\text{S}_3$ / [M. M. Pop and I. I. Shpak] // Glass Physics and Chemistry. – 2012. – V. 38, № 2, – P. 196–200. – ISSN: 1087-6596 (Print). – ISSN: 1608-313X (Online). <http://link.springer.com/article/10.1134%2FS108765961202006X>

Optical absorption edge of $\text{As}_{40-x}\text{Sb}_x\text{S}_{60}$ glassy alloys / [M.M. Pop and I. I. Shpak] // Journal of Applied Spectroscopy. – 2012.- V. 79, № 2. – P. 248-253. – ISSN: 0021-9037 (Print). – ISSN: 1573-8647 (Online). <http://link.springer.com/article/10.1007/s10812-012-9591-5>

Refractometric studies of chalcogenide glasses in Ag–As–S system / [O.I. Shpak, M.M. Pop, I.I. Shpak, I.P. Studenyak] // Optical Materials – 2012 V 35 P. 297–299. – ISSN: 0925-3467. <http://www.sciencedirect.com/science/article/pii/S0925346712003758>

Optical absorption edge in $(\text{Ag}_3\text{AsS}_3)_x(\text{As}_2\text{S}_3)_{1-x}$ superionic glasses / [I.P. Studenyak, M. Kranjcec, Yu.Yu. Neimet, M.M. Pop] // Semiconductor Physics, Quantum Electronics & Optoelectronics. – 2012. – V. 15, N 2. – P. 147 – 151. – ISSN 1605-6582 (On-line). – ISSN 1560-8034 (Print). http://journal-spqeo.org.ua/n2_2012/v15n2-2012-p147-151.pdf

Photo- and thermally-induced changes in the optical properties of Ge-S-Se amorphous films / [V.M. Rubish, E.V. Gera, M.O. Durcot, M.M. Pop, S.O. Kostyukevich, A.A. Kudryavtsev, O.S. Mykulanynets-Meshko, M.Yu. Rigan] // Semiconductor Physics, Quantum Electronics & Optoelectronics. – 2013. – V. 16, N 4. – P. 349-353. – ISSN 1605-6582 (On-line). – ISSN 1560-8034 (Print). http://journal-spqeo.org.ua/n4_2013/v16n4-2013-p349-353.pdf

Deposition and optical absorption studies of Cu–As–S thin films / I. P. Studenyak, Z. R. Molnar, I. I. Makauz, M. M. Pop, L. Daroci, S. Kokenyesi, I. Szabo, A. Csik // Semiconductor physics quantum electronics & optoelectronics. - 2018. - Vol. 21, № 2. - C. 167-172. http://nbuv.gov.ua/UJRN/MSMW_2018_21_2_11

Ellipsometric studies of $(\text{Cu}_6\text{PS}_5\text{I})(\text{Cu}_7\text{PS}_6)_x$ and $(\text{Cu}_6\text{PS}_5\text{Br})(\text{Cu}_7\text{PS}_6)_x$ mixed crystals / I.P. Studenyak, M.M. Luchynets, M.M. Pop, V.I. Studenyak, A.I. Pogodin, O.P. Kokhan, B. Grančič, P. Kúš // Semiconductor Physics, Quantum Electronics and Optoelectronics, 2019, Vol. 22 Issue 3, p347-352. (http://journal-spqeo.org.ua/n3_2019/v22n3-p347-352.pdf; <https://doi.org/10.15407/spqeo22.03.347>)

Influence of cation substitution on optical constants of $(\text{Cu}_{1-x}\text{Ag}_x)_7\text{SiS}_5\text{I}$ mixed crystals / I.P. Studenyak, S.M. Bereznyuk, M.M. Pop, V.I. Studenyak, A.I. Pogodin, O.P. Kokhan, B. Grančič, P. Kúš // Semiconductor Physics, Quantum Electronics & Optoelectronics, 2020. V. 23, No2. P. 186-192. http://journal-spqeo.org.ua/n2_2020/v23n2-p186-192.pdf

Ellipsometric and Spectrometric Studies of $(\text{Ga}_{0.2}\text{In}_{0.8})_2\text{Se}_3$ Thin Film / I.P. Studenyak, M. Kranjčec, V. Yu. Izai, V.I. Studenyak, M.M. Pop, L.M. Suslikov // Ukrainian Journal of Physics, 2020, V.65, No 3, pp. 231-235 <https://doi.org/10.15407/ujpe65.3.231>

Optical studies of X-ray irradiated $(\text{Ga}_{0.4}\text{In}_{0.6})_2\text{Se}_3$ films / Studenyak I. P., Pop M. M., Kranjčec M., and Solomon A. M. // Ukrainian Journal of Physical Optics, 2020, V.21, No 4, pp. 184-190. <https://doi.org/10.3116/16091833/21/4/184/2020>

Optical parameters of $(\text{Ga}_{0.4}\text{In}_{0.6})_2\text{Se}_3$ thin film / I.P. Studenyak, M. Kranjčec, M.M. Pop, V.I. Studenyak, L.M. Suslikov, O.Yu. Pinaeva, P. Komada, S. Luganskaya, M.Kozhamberdiyeva, and A.Mussabekova // Proc. SPIE

11456, Optical Fibers and Their Applications 2020, 1145605 (12 June 2020);

<https://doi.org/10.1117/12.2569782>

Temperature studies of optical absorption edge in $(\text{Ag}_2\text{S})_x(\text{As}_2\text{S}_3)_{1-x(x<0.2)}$ superionic glasses / I.P. Studenyak, O.I. Shpak, M. Kranjčec, M.M. Pop, I.I. Shpak, P. Kisała, P. Panas, R. Romaniuk, U. Zhunisova, and A. Ormanbekova // Proc. SPIE 11581, Photonics Applications in Astronomy, Communications, Industry, and High Energy Physics Experiments 2020, 115810T (14 October 2020); <https://doi.org/10.1117/12.2580494>

Pop, M., Studenyak, V., Pogodin, A., Kokhan, O., Suslikov, L., Studenyak, I., & Kúš, P. (2021). Optical Properties of Cation-Substituted $(\text{Cu}_{1-x}\text{Ag}_x)_7\text{GeSe}_5\text{I}$ Mixed Crystals. *Ukrainian Journal of Physics*, 66(5), 406. <https://doi.org/10.15407/ujpe66.5.406>

Pop, M., Kranjčec, M., & Studenyak, I. (2021). Optical Parameters of As-Deposited and Annealed $(\text{Ga}_{0.3}\text{In}_{0.7})_2\text{Se}_3$ Thin Films. *Ukrainian Journal of Physics*, 66(10), 885. <https://doi.org/10.15407/ujpe66.10.885>

Studenyak I. P., Pop M. M., Shender I. O., Pogodin A. I. and Kranjcec M. / Temperature behaviour of fundamental absorption edge in superionic $\text{Ag}_6\text{PS}_5\text{I}$ crystals // Ukr. J. Phys. Opt. 2021, V. 22, No. 4., pp. 216-224. <https://doi.org/10.3116/16091833/22/4/216/2021> (http://ifo.lviv.ua/journal/2021/2021_4_22_04.html)

V.M. Rubish, V.K. Kyrylenko, M.O. Durkot, L.I. Makar, M.M. Pop, A.A. Tarnaj, M.L. Trunov, S. Mudry, I. Shtablavyi. Rapid formation methods of arrays of randomly distributed Au and Ag nanoparticles, their morphologies and optical characteristics. *PHYSICS AND CHEMISTRY OF SOLID STATE*, V. 22, No. 4 (2021) pp. 804-810

Pogodin, A.I., Studenyak, I.P., Shender, I.A., Pop M.M. *et al.* Crystal structure, ion transport and optical properties of new high-conductivity $\text{Ag}_7(\text{Si}_{1-x}\text{Ge}_x)\text{S}_5\text{I}$ solid solutions. *J Mater Sci* (2022). <https://doi.org/10.1007/s10853-022-07059-1>.

A. I. Pogodin, M. M. Pop, I. A. Shender, I. P. Studenyak, M. J. Filep, T. O. Malakhovska, O. P. Kokhan, T. Y. Babuka, L. M. Suslikov & V. M. Rubish. Influence of order–disorder effects on the optical parameters of $\text{Ag}_7(\text{Si}_{1-x}\text{Ge}_x)\text{S}_5\text{I}$ -mixed crystals. *J Mater Sci: Mater Electron* **33**, 15054–15066 (2022). <https://doi.org/10.1007/s10854-022-08422-3>

V. Kavaliukè, T. Šalkus, A. Kežionis, M.M. Pop, I.P. Studenyak, Ag_3AsS_3 - As_2S_3 composite: Detailed impedance spectroscopy study, *Solid State Ionics*, Volume 383, 2022, 115971. <https://doi.org/10.1016/j.ssi.2022.115971>.

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Pop, M., Bilanych, V., Komanicky, V., Nebola, I., Solomon, A., Kopčanský, P., & Studenyak, I. (2022). Materials for Optical Sensors of X-ray Irradiation Based on $(\text{GaIn}_{1-x})_2\text{Se}_3$ Films. *Ukrainian Journal of Physics*, 67(9), 684. <https://doi.org/10.15407/ujpe67.9.684>

T.O. Malakhovska, A.I. Pogodin, M.J. Filep, M.M. Pop, Ya.I. Studenyak, K.M. Nemesh, R. Mariychuk, V.V. Vakulchak, V. Komanicky, S. Vorobiov. Optical characteristics of silver-based nanocomposites fabricated by an environmentally friendly method. *Semiconductor Physics, Quantum Electronics & Optoelectronics*, 26 (1), P. 076-083 (2023). <https://doi.org/10.15407/spqeo26.01.076>

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Artem Pogodin, Mykhailo Pop, Iryna Shender, Mykhailo Filep, Tetyana Malakhovska, Oleksandr Kokhan, Vitalii Izai, Peter Kúš, Vasyl Rubish. Anionic framework descriptors and microstructure affects on optical

parameters of Ag_{7+x}(P_{1-x}Gex)S₆ single crystals, *Optical Materials*, Volume 145, 2023, 114407, <https://doi.org/10.1016/j.optmat.2023.114407>.

Shuaibov O., Minya O., Hrytsak R., Bilak Y., Malinina A., Homoki Z., **Pop M.**, & Konoplyov O. (2023). Gas Discharge Source of Synchronous Flows of UV Radiation and Silver Sulphide Microstructures. *Physics and Chemistry of Solid State*, 24(3), 417-421. <https://doi.org/10.15330/pcss.24.3.417-421>

Rubish V., Kyrylenko V., Durkot M., Boryk V., Dzumedzey R., Yurkin I., Pop M., & Myslo Y. (2023). The influence of mercury vapor on the electrical resistance of chalcogenide amorphous films. *Physics and Chemistry of Solid State*, 24(2), 335-340. <https://doi.org/10.15330/pcss.24.2.335-340>

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Rubish, V., Pop, M., Pisak, R., Makar, L., Durkot, M., Solomon, A., Spesyvykh, O., Boryk, V., Dzumedzey, R. (2024). Structural Studies of Mercury-Modified Amorphous Films of the Selenium-Antimony System. *Physics and Chemistry of Solid State*, 25(1), 164–169. <https://doi.org/10.15330/pcss.25.1.164-169>

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