CURRICULUM VITAE

Sergii Nizhankovskyi

Affiliation and official address:
Head of Department of Optical and Laser Crystals, Institute for Single Crystals NAS of Ukraine
61072 Ukraine, Kharkiv, Nauky Ave. 60.
E-mail: nizhankovsky@isc.kharkov.ua

Education (*degrees, dates, universities)*

1996 – M. S.	Kharkiv State University, Ukraine (Physics and Technology)
2004 – Ph. D	Institute for Single Crystals NASU, Kharkiv, Ukraine (Solid State Physics)
2020 –	Diploma of Senior Researcher (Materials Science), Institute for Single Crystals NASU, Kharkiv, Ukraine

Career/Employment (*employers, positions and dates)*

1996	Engineer	Institute for Single Crystals NASU, Kharkiv, Ukraine
1996-1999	PhD Student	Institute for Single Crystals NASU, Kharkiv, Ukraine
2000-2003	Engineer	Institute for Single Crystals NASU, Kharkiv, Ukraine
2004-2005	Junior Research Scientist	Institute for Single Crystals NASU, Kharkiv, Ukraine
2005-2010	Research Scientist	Institute for Single Crystals NASU, Kharkiv, Ukraine
2010-2011	Senior Research Scientist	Institute for Single Crystals NASU, Kharkiv, Ukraine
2011-2014	Postdoctoral Researcher	Institute for Single Crystals NASU, Kharkiv, Ukraine
2014-2015	Senior Research Scientist	Institute for Single Crystals NASU, Kharkiv, Ukraine
2015-2016	Head of the Laboratory	Institute for Single Crystals NASU, Kharkiv, Ukraine
2016-date	Head of Department	Institute for Single Crystals NASU, Kharkiv, Ukraine

Main field of activity and current research interest

Materials science and technology of functional crystals for use in laser technique and optoelectronics.

Honors, Awards, Fellowships, Membership of Professional Societies

NAS of Ukraine Award “For Professional Achievements” (2018)

Publications and patents

2 - Chapters in books, 92 original articles, 9 patents;
Scopus *h*-index:**7**
https://www.scopus.com/authid/detail.uri?origin=resultslist&authorId=57215834803&zone=
https://orcid.org/0000-0002-8982-6751

Selected publications:

1. Chaika, M., Tomala, R., Vovk, O., **Nizhankovskyi, S.**, Mancardi, G., Strek, W. *Upconversion luminescence in Cr3+:YAG single crystal under infrared excitation* // Journal of Luminescence. – 2020. - V.226. - 117467. https://doi.org/10.1016/j.jlumin.2020.117467 **Q2**
2. Y. Boyarintseva, S. Neicheva, P. Zhmurin, P. Arhipov, Ia. Gerasymov, S. Tkachenko, O. Sidletskiy, V. Baumer, **S. Nizhankovskyi** *Optical study of Y3-xGdxAl5O12:Ce crystals grown from the melt* // Optical Materials, Volume 96, (2019),109283. https://doi.org/10.1016/j.optmat.2019.109283 **Q2**
3. **S. V. Nizhankovskyi** ; E. A. Vovk ; A. N. Shekhovtsov ; S. I. Kryvonogov; N. O. Kovalenko; A. A. Kozlovskyi ; V. N. Baumer ; A. G. Doroshenko ; I. M. Pritula. *Czochralski growth and characterization of $Er^{3+},Yb^{3+}:YCa_4O(BO_3)_3$ single crystals* // Proceedings 2019 IEEE 8th International Conference on Advanced Optoelectronics and Lasers (CAOL). **DOI:** 10.1109/CAOL46282.2019.9019576
4. **S.V.Nizhankovskiy**, N.S.Sidelnikova, V.V.Baranov. *Influence of crystal growth conditions and carbothermal treatment on activator charge state in Ti:sapphire* // Functional Materials. 2018; 25 (2): 208-217. https://doi.org/10.15407/fm25.02.208
5. V. Gorbenko, E. Zych, T. Voznyak, **S. Nizankovskiy**, T. Zorenko, Yu. Zorenko *Comparison of the luminescent properties of LuAG:Pr nanopowders, crystals and films using synchrotron radiation* // Optical materials, 2017.V.66, p.271-276. https://doi.org/10.1016/j.optmat.2017.02.003 **Q2**
6. Yu. Zorenko, V. Gorbenko, T. Zorenko, V. Voznyak, **S. Nizhankovskiy**. *Comparison of the luminescent properties of $Lu_3Al_5O_{12}$:Pr crystals and films under synchrotron radiation excitation* // Journal of Luminescence, 2016, V. 179, pp. 496-500. https://doi.org/10.1016/j.jlumin.2016.07.053 **Q2**
7. N.S.Sidelnikova, **S.V.Nizhankovskyi,** V.V.Baranov. *Charge state of the activator in Ti:sapphire crystals grown by HDC method* // Functional Materials, 2015; 22 (4): 461-469. http://dx.doi.org/10.15407/fm22.04.461
8. **S.V. Nizhankovskyi**, A.V. Tan'ko, N.S. Sidelnikova, G.T. Adonkin. *Formation of longitudinal aggregation of inclusions in bulk sapphire and yttrium-aluminum garnet grown by horizontal directed crystallization method* // Crystal res. and tech. 2015, V.50, Is. 3, pp. 223-229. https://doi.org/10.1002/crat.201400430 **Q2**
9. Y.Zorenko, T.Zorenko, **S.Nizhankovsky**, E.Krivonosov, A.Dan`ko, V.Puzikov. *Comparative study of the luminescence of Al_2O_3:Ti and Al_2O_3 crystals under VUV synchrotron radiation excitation* // Optical materials, 2013, V.35, p. 2053-2055. ttps://doi.org/10.1016/j.optmat.2012.10.044 **Q2**
10. Y. Zorenko, V. Gorbenko, T. Voznyak, V. Savchyn, **S. Nizhankovskiy**, A.Dan'ko, V.Puzikov, V.Laguta, J.A.Mares, M. Nikl, K. Nejezchleb, M. Batentschuk, A. Winnacker. *Luminescent andscintillation properties of $Lu_3Al_5O_{12}$:Sc single crystal and singlecrystalline films*. // Optical Materials, V.34, I. 12, October 2012, P. 2080-2085. https://doi.org/10.1016/j.optmat.2012.10.044 **Q2**