

CURRICULUM VITAE



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Affiliation and official address:

Research Scientist of Department of Optical and Laser Crystals,
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Education (*degrees, dates, universities*)

1993 – M. S. Kharkiv State University, Ukraine (Engineer Physicist)
2014 – Ph. D Institute for Single Crystals NAS of Ukraine (Materials Science)
2017 – Research Scientist Institute for Single Crystals NASU, Kharkiv, Ukraine (Optical and Laser Crystals)

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

1993-1998	Engineer	Institute for Single Crystals NAS of Ukraine, Kharkiv, Ukraine
1998-2010	Senior engineer	Institute for Single Crystals NAS of Ukraine, Kharkiv, Ukraine
2010-2013	PhD Student	Institute for Single Crystals NAS of Ukraine, Kharkiv, Ukraine
2014-2015	Junior Research Scientist	Institute for Single Crystals NAS of Ukraine, Kharkiv, Ukraine
2015-2017	Acting Research Scientist	Institute for Single Crystals NAS of Ukraine, Kharkiv, Ukraine
2018- date	Research Scientist	Institute for Single Crystals NASU, Kharkiv, Ukraine

Main field of activity and current research interest

Atomic force microscopy; Study of mechanical properties (near-surface disturbed layer, stress), structural and optical characteristics of sapphire and Ti:sapphire, as well as other refractory oxide crystals; Development of physical and technological bases of processing of crystals.

Publications and patents:

52 original articles, 8 patents; Scopus *h*-index: **4**;
<https://www.scopus.com/authid/detail.uri?authorId=6602176784>;
<https://orcid.org/0000-0002-3626-2892>.

Selected recent publications:

(1) E.A.Vovk, E.F. Dolzhenkova, V.N. Baumer, A.N.Shekhovtsov, S.V. Nizhankovskyi, **S.I. Kryvonogov** et. all, Ca₄YO(BO₃)₃:Er,Yb single crystals: structure peculiarities and anisotropy of physical and mechanical properties, *Funct. Mater.* 2020; V.27 №2 P. 238-244 . <https://doi.org/10.15407/fm27.02.238>.
(2) Voronin, S., Suranov, O., Onopreichuk, D., Stefanov, V., **Kryvonogov, S.**, et. all, Determining the influence of carbon black in oil on the wear resistance of elements in the tribological system "steel - oil - bronze", *Eastern-European Journal of Enterprise Technologies* 2019, V.2 N12 (98), P. 51-58.
<https://doi.org/10.15587/1729-4061.2019.161951>.
(3) S.V.Nizhankovskyi, E.A.Vovk, A.N.Shekhovtsov, **S.I.Kryvonogov**, et. all, Czochralski growth and characterization of Er³⁺, Yb³⁺:YCa₄O(BO₃)₃ single crystals, *IEEE 8th International Conference on Advanced*

(4) S.V. Nizhankovskiy, A.A. Kozlovskiy, **S.I. Krivonogov**, N.O.Kovalenko, Yu.V.Siryk Spectral properties of Er-doped yttrium aluminum garnet crystals grown by modified horizontal directional crystallization method *Funct. Mater.* 2018; V.25 №4 c.-646-651. <https://doi.org/10.15407/fm25.04.646>. **Q3**

(5) E.I.Rogacheva, A.G.Fedorov, **S.I.Krivonogov**, P.V.Mateychenko, et. all, Structure of thermally evaporated bismuth selenide thin films, *Funct. Mater.* 2018; V.25 №3 c.-516-524.
<https://doi.org/10.15407/fm25.03.516> **Q3**

(6) A.N. Iurchenko, A.P. Voronov, **S.I. Kryvonogov**, I.M. Pritula et. all, Growth peculiarities of doped lithium dihydrogen phosphate single crystals from nonstoichiometric solution, *Functional materials* 2017, V.24, №2 c.- 226-236. <https://doi.org/10.15407/fm24.02.226> **Q3**

(7) S.V. Nizhankovskiy, A.V. Tan'ko, Yu.N. Savvin, **S.I. Krivonogov**, A.T. Budnikov A.V. Voloshin Single crystalline YAG:Ce phosphor for powerful solid-state sources of white light. The influence of production conditions on luminescence properties and lighting characteristics, *Optics and Spectroscopy* 2016 V. 120, N6. P. 915-921. <https://doi.org/10.1134/S0030400X16050210>; **Q3**

(8) E.I.Rogacheva, A.V.Budnik, M.V.Dobrotvorskaya, A.G.Fedorov, **S.I.Krivonogov**, et. all, Growth and structure of thermally evaporated Bi₂Te₃ thin films, *Thin Solid Films*, 2016. V.612, P. 128-134.
<https://doi.org/10.1016/j.tsf.2016.05.046>; **Q2**

(9) **Kryvonogov, S.I.** Krukhmalev, A.A. Nizhankovskiy, S.V. Sidelnikova, N.S., Vovk, E.A., et. all, Specific features of the surface morphology of modified AlN/sapphire substrates fabricated by thermochemical nitridation, *Crystallography Reports* 2015, V. 60 , Is.1, P. 138-142 IF 0.661
<https://doi.org/10.1134/S1063774515010125> **Q3**

(10) E. A. Vovk, A. T. Budnikov, S. V. Nizhankovsky, **S. I. Krivonogov**, et. all, Structure and element composition of the nitride layer of AlN/Al₂O₃ templates obtained by the thermochemical nitridation of sapphire, *Journal of Surface Investigation. X-ray, Synchrotron and Neutron Techniques* 2015. V. 9, P. 1178–1183 <https://doi.org/10.1134/S1027451015060221>.

(11) O.N. Bezkrovnyaya I.M. Pritula, A.G. Plakysyi, V.F. Tkachenko, O.M. Vovk, **S.I Krivonogov**, et. all, Composite materials based on nanoporous SiO₂ matrices and squarylium dye, *Journal of Non-Crystalline Solids*, – 2014. – V.389. – P. 11-16. <https://doi.org/10.1016/j.inoncrysol.2014.01.052> **Q2**

(12) Vovk, E.A., Budnikov, A.T., Dobrotvorskaya M. V., **Kryvonogov, S.I.**, Danko A.Ya. Mechanism of the interaction between Al₂O₃ and SiO₂ during the chemical-mechanical polishing of sapphire with silicon dioxide, *Journal of Surface Investigation: X-ray, Synchrotron and Neutron Techniques*. 2012, V.6, №1, P. 115-121. <https://doi.org/10.1134/S1027451012020188>.