CURRICULUM VITAE

Vovk Olena

Affiliation and official address:
Senior Research Scientist of Department of Optical and Laser Crystals,
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Education (*degrees, dates, universities)*

1988 – M. S.	Moscow State University, USSR (Chemistry)
2006 – Ph. D	Institute for Single Crystals of NAS of Ukraine (Materials Science)
2015 –	Diploma of Senior Research Scientist (Solid state physics), Institute for Single Crystals NASU, Kharkiv

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

1988 - 2002	Engineer	Institute for Single Crystals of NASU, Kharkiv, Ukraine
2002 - 2006	Senior engineer	Institute for Single Crystals of NASU, Kharkiv, Ukraine
2006 - 2011	Junior Research Scientist	Institute for Single Crystals of NASU, Kharkiv, Ukraine
2011 - 2014	Research Scientist	Institute for Single Crystals of NASU, Kharkiv, Ukraine
2014 - date	Senior Research Scientist	Institute for Single Crystals of NASU, Kharkiv, Ukraine

Main field of activity and current research interest

Materials Processing, Polishing, Materials Science, Development and investigation of materials for laser and optoelectronic technique, Physical properties of optical and laser materials

Publications and patents:

2- Chapters in books, 78 original articles, 8 patents;
Scopus *h*-index*: **8*** (Web of Science Researcher ID AAJ-5646-2021);
https://publons.com/researcher/4339733/olena-vovk
https://www.scopus.com/authid/detail.uri?authorId=7003399252
https://orcid.org/0000-0001-7821-1738.

Selected recent publications:

(1) **E.A. Vovk**, E.F. Dolzhenkova, V.N. Baumer, A.N. Shekhovtsov, S.V. Nizhankovskyi, I.M. Pritula, S.I. Kryvonogov, A.A. Kozlovskii, V.V. Baranov. *Single crystal $Ca_4YO(BO_3)_3$:Er,Yb: structural features and anisotropy of physical and mechanical properties,* Functional materials, 2020, Vol.27 (2), 238-244, DOI: 10.15407/fm27.02.238

(2) S.V. Nizhankovskyi, L.O.Gryn, A.A.Kozlovskyi, **O.O.Vovk**. *Optical, electrophysical and structural properties of polycrystalline germanium grown by* horizontal directional *crystallization method*, Functional materials, 2020, Vol.27 (4), 667-674, DOI: 10.15407/FM27.04.667

(3) S.V. Nizhankovskyi, A.A. Kozlovskyi, N.O. Kovalenko, **O.O. Vovk**. *Optical and luminescence properties of Er,Yb: YAG crystals grown by horizontal directional crystallization method* Functional Materials, 2019, V.26(1), 35-40, DOI: 10.15407/FM26.01.35

(4) 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,* Proceeding of the 8th International Conference on Advanced Optoelectronics and Lasers (CAOL), IEEE *Xplore* Digital Library https://ieeexplore.ieee.org/document/9019576, 2019, 465-468, DOI: 10.1109/CAOL46282.2019.9019576
(5) A. E. Muslimov, A. V. Butashin, V. M. Kanevsky, A. N. Deryabin, **E. A. Vovk**, V. A. Babaev. *Manifestation of the Sapphire Crystal Structure in the Surface Nanopattern and Its Application in the Nitride Film Growth,* Crystallography Reports, 2018, Vol. 63, No. 2, pp. 234–240, DOI: 10.1134/S1063774518020141, ***Q2.***
(6) **E. A. Vovk**, A. T. Budnikov, S. V. Nizhankovsky, S. I. Krivonogov, M. V. Dobrotvorska, V. F. Tkachenko, P. V. Mateychenko. *Structure and Element Composition of the Nitride Layer of AlN/Al_2O_3 Templates Obtained by the Thermochemical Nitridation of Sapphire*, *J. of Surface Investigation. X_ray, Synchrotron and Neutron Techniques*, 2015, Vol. 9, No. 6, pp. 1201–1206, DOI: 10.1134/S1027451015060221
(7) **E.A. Vovk**. *Deagglomeration of aerosil in polishing suspension for chemical-mechanical polishing of sapphire*, Functional materials, 2015, V.22, No.1, 110-115, DOI: 10.15407/fm22.01.110, ***Q3.***
(8) **E.A. Vovk**. *Chemical-mechanical polishing of sapphire by polishing suspension based on aerosol,* Functional materials, 2015, V.22, No.2, 252-257, DOI: 10.15407/fm22.02.252, ***Q3.***
(9) S. I. Kryvonogov, A. A. Krukhmalev, S. V. Nizhankovskyi, N. S. Sidelnikova, **E. A. Vovk**, A. T. Budnikov, G. T. Adonkin, A. E. Muslimov. *Specific Features of the Surface Morphology of Modified AlN/Sapphire Substrates Fabricated by Thermochemical Nitridation*, Crystallography Reports, 2015, Vol. 60, No.1, 138–142, DOI: 10.1134/S1063774515010125, ***Q3.***
(10) V.F. Tkachenko, S.I. Kryvonogov, A.T. Budnikov, O.A. Lukienko, **E.A Vovk**. *Investigation of damaged layer formed at mechanical treatment of sapphire using three-crystal X-ray diffraction method*, Functional materials, 2014, V.21, No.2, 171-175, DOI: 10.15407/fm21.02.171, ***Q3.***
(11) **E.A. Vovk**, A.T. Budnikov, S.V. Nizhankovskyi, S.I. Kryvonogov, A.A. Krukhmalev, M.V. Dobrotvorskaya. *Polishing of AlN/sapphire substrates obtained by thermochemical nitridation of sapphire*, Functional materials, 2013, V.20, №2, 253-258, DOI: 10.15407/fm20.02.253, ***Q3.***
(12) **E.A. Vovk**, A.T. Budnikov, M.V. Dobrotvorskaya, S.I. Krivonogov, Danko A.Ya. *Mechanism of the Interaction between Al_2O_3 and SiO_2 during the Chemical-Mechanical Polishing of Sapphire with Silicon Dioxide,* J. of Surface Investigation. Xray, Synchrotron and Neutron Techniques, 2012, Vol. 6, No. 1, pp. 115–121, DOI: 10.1134/S1027451012020188.