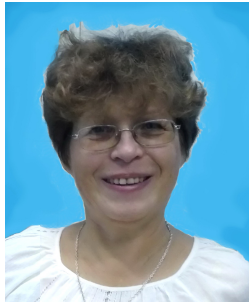


## CURRICULUM VITAE



**Vovk Olena**

### **Affiliation and official address:**

Senior Research Scientist of Department of Optical and Laser Crystals,  
Institute for Single Crystals of NAS of Ukraine  
61072 Ukraine, Kharkiv, 60 Nauky Ave.  
E-mail: [vovk@isc.kharkov.ua](mailto:vovk@isc.kharkov.ua), [ov2017@gmail.com](mailto:ov2017@gmail.com).

### **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 – Senior Research Scientist (Solid State Physics), Institute for Single Crystals of NAS of Ukraine, 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 – till now	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 Techniques, Physical Properties of Optical and Laser Materials.

### **Publications and patents**

2 chapters in books, 41 articles (Scopus), 8 patents; ***h-index: 9***  
(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>.

### **Honors, Awards, Fellowships, Membership of Professional Societies:**

Member of the Ukrainian Materials Science Society named after I.M. Frantsevich.

### **Selected recent publications:**

1. A.D. Timoshenko, R.P. Yavetskiy, A.G. Doroshenko, S.V. Parkhomenko, I.O. Vorona, O.S. Kryzhanovska, N.A. Safronova, **O.O. Vovk**, A.V. Tolmachev, V. Baumer, I. Matolínová, Effect of the sintering temperature on microstructure and optical properties of reactive sintered YAG:Sm<sup>3+</sup> ceramics, *Optical Materials*: X, 13 (2022) 100131, <https://doi.org/10.1016/j.omx.2021.100131>, **Q2**.

2. **O.O. Vovk**, S. Nizhankovskyi, Yu. Siryk, S. Skorik, P. Mateichenko, Diffusion of cobalt ions into crystals of non-stoichiometric magnesium aluminate spinel  $MgO \cdot xAl_2O_3$  // Acta Physica Polonica A 141(4) (2022) 308-311, DOI: [10.12693/APhysPolA.141.308](https://doi.org/10.12693/APhysPolA.141.308).
3. A.D. Timoshenko, O.O. Matvienko, A.G. Doroshenko, S.V. Parkhomenko, I.O. Vorona, O.S. Kryzhanovska, N.A. Safronova, **O.O. Vovk**, A.V. Tolmachev, V.N., Baumer, I. Matolínová, S. Hau, C. Gheorghe, R.P. Yavetskiy, Highly-doped YAG:Sm<sup>3+</sup> transparent ceramics: Effect of Sm<sup>3+</sup> ions concentration // Ceram. Int. (2022) <https://doi.org/10.1016/j.ceramint.2022.10.257>, **Q1**.
4. S. Nizhankovskyi, A. Kozlovskyi, **O. Vovk**, N. Sidelnikova, Yu. Siryk. Optical properties of MgAl<sub>2</sub>O<sub>4</sub> crystals grown by iridium-free technology // Acta Physica Polonica A 141(4) (2022) 371-373, DOI: [10.12693/APhysPolA.141.371](https://doi.org/10.12693/APhysPolA.141.371).
5. S.V. Nizhankovskyi, N.S. Sidelnikova, **O.O. Vovk**, Yu.V. Siryk. Thermodynamic and experimental studies of the growth of magnesium-aluminum spinel crystals in molybdenum crucibles // Functional Materials 28(4) (2021) 764-772, <https://doi.org/10.15407/fm28.04.764>.
6. **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<sub>4</sub>YO(BO<sub>3</sub>)<sub>3</sub>:Er,Yb: Structural features and anisotropy of physical and mechanical properties, Functional Materials 27(2) (2020) 238-244, <https://doi.org/10.15407/fm27.02.238>.
7. 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 27(4) (2020) 667-674, <https://doi.org/10.15407/fm26.01.35>.
8. 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 26(1) (2019) 35-40, <https://doi.org/10.15407/fm26.01.35>.
9. 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<sup>3+</sup>,Yb<sup>3+</sup>:YCa<sub>4</sub>O(BO<sub>3</sub>)<sub>3</sub> single crystals, Proceeding of the 8<sup>th</sup> International Conference on Advanced Optoelectronics and Lasers (CAOL) (2019) 465-468, DOI: [10.1109/CAOL46282.2019.9019576](https://doi.org/10.1109/CAOL46282.2019.9019576).
10. A.G. Doroshenko, R.P. Yavetskiy, S.V. Parkhomenko, I.O. Vorona, O.S. Kryzhanovska, P.V. Mateychenko, A.V. Tolmachev, **E.A. Vovk**, V.A. Bovda, G. Croitoru, L. Gheorghe. Effect of the sintering temperature on the microstructure and optical properties of YAG:Cr,Mg ceramics // Optical Materials 98 (2019) 109505-109511. <https://doi.org/10.1016/j.optmat.2019.109505>. **Q2**.
11. **E.A. Vovk**. Deagglomeration of aerosil in polishing suspension for chemical-mechanical polishing of sapphire, Functional Materials 22(1) (2015) 110-115, DOI: [10.15407/fm22.01.110](https://doi.org/10.15407/fm22.01.110), **Q3**.
12. **E.A. Vovk**. Chemical-mechanical polishing of sapphire by polishing suspension based on aerosol, Functional Materials 22(2) (2015) 252-257, DOI: [10.15407/fm22.02.252](https://doi.org/10.15407/fm22.02.252), **Q3**.