

CURRICULUM VITAE



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Affiliation and official address:

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Education:

2001 – M. Sc. V. N. Karazin Kharkiv National University (Chemistry)
2006 – Ph. D. Institute for Single Crystals NASU (Material Science)

Career/Employment:

2001-2005	Engineer	Institute for Single Crystals NASU, Kharkiv, Ukraine
2002-2005	Ph. D. student	Institute for Single Crystals NASU, Kharkiv, Ukraine
2006-2007	Junior Researcher	Institute for Single Crystals NASU, Kharkiv, Ukraine
2008-2017	Researcher	Institute for Single Crystals NASU, Kharkiv, Ukraine
2018 till now	Senior Researcher	Institute for Single Crystals NASU, Kharkiv, Ukraine

Main field of activity and current research interest:

Materials Sciences, Optical Ceramics, Nanostructured Ceramics (Rare-earth doped Y_2O_3 , Lu_2O_3 , $Y_3Al_5O_{12}$, etc.), Synthesis and Fabrication of Oxide Nanopowders, Phase and structural Transformations in Oxide Nanopowders, Sintering Aids.

Honors, Awards, Fellowships, Membership of Professional Societies:

The President's of Ukraine Prize for Young Scientists (2008). Member of the Ukrainian Materials Science Society named after I.M. Frantsevich.

Publications and patents:

1 Chapter in Book, 22 Original Articles (Scopus), 3 Patents. **h-index: 5**

<https://www.scopus.com/authid/detail.uri?authorId=57212526766>

<https://scholar.google.com/citations?hl=ru&pli=1&user=-WtUOEQAAAAJ>

<https://www.researchgate.net/profile/Oleksandra-Kryzhanovska>

Selected recent publications:

1. A.D. Timoshenko, 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, R.P. Yavetskiy. Effect of the sintering temperature on microstructure and optical properties of reactive sintered YAG:Sm³⁺ ceramics // Optical Materials: X. 13 (2022) 100131 (7 pp.). **Invited Paper**. <https://doi.org/10.1016/j.omx.2021.100131>. **Q2**.
2. I.O. Vorona, R.P. Yavetskiy, S.V. Parkhomenko, A.G. Doroshenko, **O.S. Kryzhanovska**, N.A. Safronova, A.D. Timoshenko, A.E. Balabanov, A.V. Tolmachev, V.N. Baumer. Effect of complex Si⁴⁺+Mg²⁺ additive on sintering and properties of undoped YAG ceramics // Journal of the European Ceramic Society 42 (2022) 6104–6109. <https://doi.org/10.1016/j.jeurceramsoc.2022.05.017>. **Q1**.

3. N.A. Safronova, **O.S. Kryzhanovska**, A.G. Doroshenko, S.V. Parkhomenko, I.O. Vorona, M.V. Dobrotvorska, A.T. Budnikov, A.V. Tolmachev, R.P. Yavetskiy. Effect of solid loading on properties of $Y_2O_3-Al_2O_3-Nd_2O_3$ powder mixtures obtained by planetary ball milling and ceramics based on them // *Ceramics International* 48 (2022) 33003–33010. <https://doi.org/10.1016/j.ceramint.2022.07.232>. **Q1**.
4. N.A. Safronova, R.P. Yavetskiy, **O.S. Kryzhanovska**, M.V. Dobrotvorska, A.E. Balabanov, I.O. Vorona, A.V. Tolmachev, V.N. Baumer, I. Matolínová, D.Yu. Kosyanov, O.O. Shichalin, E.K. Papynov, S. Hau, C. Gheorghe. A novel IR-transparent $Ho^{3+}:Y_2O_3-MgO$ nanocomposite ceramics for potential laser applications // *Ceramics International* 47 (2021) 1399-1406. <https://doi.org/10.1016/j.ceramint.2020.08.263>. **Q1**.
5. I. Vorona, A. Balabanov, M. Dobrotvorska, R. Yavetskiy, **O. Kryzhanovska**, L. Kravchenko, S. Parkhomenko, P. Mateychenko, V. Baumer, I. Matolínová. Effect of MgO doping on the structure and optical properties of YAG transparent ceramics // *Journal of the European Ceramic Society* 40 (2020) 861-866. <https://doi.org/10.1016/j.jeurceramsoc.2019.10.048>. **Q1**.
6. N.A. Safronova, **O.S. Kryzhanovska**, M.V. Dobrotvorska, A.E. Balabanov, A.V. Tolmachev, R.P. Yavetskiy, S.V. Parkhomenko, R. Brodskii, V.N. Baumer, D.Yu. Kosyanov, O.O. Shichalin, E.K. Papynov, Jiang Li. Influence of sintering temperature on structural and optical properties of Y_2O_3-MgO composite SPS ceramics // *Ceramics International* 46 (2020) 6537–6543. <https://doi.org/10.1016/j.ceramint.2019.11.137>. **Q1**.
7. N.A. Safronova, R.P. Yavetskiy, **O.S. Kryzhanovska**, S.V. Parkhomenko, A.G. Doroshenko, M.V. Dobrotvorska, A.V. Tolmachev, R. Boulesteix, A. Maître, T. Zorenko, Yu. Zorenko. Fabrication and VUV luminescence of $Lu_2O_3:Eu^{3+}$ (5 at.%) nanopowders and transparent ceramics // *Optical Materials* 101 (2020) 109730–109736. <https://doi.org/10.1016/j.optmat.2020.109730>. **Q2**.
8. **O.S. Kryzhanovska**, V.N. Baumer, S.V. Parkhomenko, A.G. Doroshenko, R.P. Yavetskiy, A.E. Balabanov, A.V. Tolmachev, S.N. Skorik, Jiang Li, A. Kuncser. Formation peculiarities and optical properties of highly-doped $(Y_{0.86}La_{0.09}Yb_{0.05})_2O_3$ transparent ceramics // *Ceramics International* 45 (2019) 16005-16010. <https://doi.org/10.1016/j.ceramint.2019.05.111>. **Q1**.
9. 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**.