

CURRICULUM VITAE



Bezkvovna Olha

Affiliation and official address:

Senior Research Scientist, Department of Nonlinear Crystals,
Institute for Single Crystals NAS of Ukraine,
61072, Ukraine, Kharkiv, 60 Nauky Ave.

E-mail: bezkvovnaya@isc.kharkov.ua,
onbezkvovnaya@gmail.com

Education (degrees, dates, universities)

1988 – M. S. Kharkiv State University, Ukraine (chemist)
2008 – Ph. D. Institute for Single Crystals NASU (Kharkiv State University, Physical Chemistry)
2021 – Dr.Sci.Hab. Institute for Single Crystals NASU, Kharkiv, Ukraine (Materials Science)

Career/Employment

1994-2008	Engineer	Institute for Single Crystals NASU, Kharkiv, Ukraine
2008-2010	Junior Research Scientist	Institute for Single Crystals NASU, Kharkiv, Ukraine
2010-2014	Research Scientist	Institute for Single Crystals NASU, Kharkiv, Ukraine
2015-till now	Senior Research Scientist	Institute for Single Crystals NASU, Kharkiv, Ukraine

Main field of activity and current research interest

Development and research of composite materials with laser and nonlinear optical properties; Investigation of influence of different additives on physical properties (optical, thermal, strength properties and SHG efficiency) of KDP monocrystals; Creation of composite materials based on KDP and SiO₂ matrices incorporated with nanoparticles of metal oxides, organic and semi-organic molecules for nonlinear optic; Investigation an influence of SiO₂-matrix on luminescence and lasing properties of dyes; Biomimetic crystallization of calcium oxalate monohydrate in the presence of B-group vitamins and aminoacids series. Synthesis and study of the morphology and physical properties (XRD, luminescence) of LuPO₄ doped with rare earth ions for optical applications.

Publications and patents

2 Chapters in books, 53 original articles (Scopus); 5 patents; *h*-index: **11** (Scopus);

<https://www.scopus.com/authid/detail.uri?authorId=6508141994>

<https://orcid.org/0000-0003-2257-0963>

Selected recent publications:

1. I.M. Pritula, E.I. Kostenyukova, **O.N. Bezkravnaya**, M.I. Kolybaeva, D.S. Sofronov, E.F. Dolzhenkova, A.Kanaev, V. Tsurikov. KDP crystal doped with L-arginine amino acid: growth, structure perfection, optical and strength characteristics. Optical Materials. – 2016. – Vol. 57. – P. 217-224, <https://doi.org/10.1016/j.optmat.2016.04.044> **Q1**.
2. Y.V. Taranets, **O.N. Bezkravnaya**, I.M. Pritula, P.V. Mateychenko, D.S. Sofronov, A.N. Puzan. Effect of charge state of L-aspartic and L-arginine amino acids on morphology of calcium oxalate monohydrate crystals. Crystal Research & Technology. – 2018. – Vol. 53, No. 4 – P.1700133 (7). <https://doi.org/10.1002/crat.201700133>. **Q2**.
3. M. Shopa, Y. Shopa, E. Kostenyukova, I. Pritula, O. Bezkravnaya, Optical activity and electro-optic effect of L-arginine doped KDP single crystals, Optics and Laser Technology. – 2019. – Vol. 119. – 105655. <https://doi.org/10.1016/j.optlastec.2019.105655>.
4. V.V. Maslov, **O.N. Bezkravnaya**, I.M. Pritula. Characteristics of Benzopyran Laser Dyes in Annealed Silica Xerogel. Journal of Fluorescence. – 2019. – Vol.29. – P.473-478, <https://doi.org/10.1007/s10895-019-02357-5>. **Q3**.
5. Y.V. Taranets, **O.N. Bezkravnaya**, I.M. Pritula. Effect of amino acids and B-group vitamins on nucleation of calcium oxalate monohydrate. Journal of Crystal Growth. – 2020. – Vol.531, 125368(8), <https://doi.org/10.1016/j.jcrysgro.2019.125368>. **Q2**.
6. M. Shopa, Y. Shopa, M. Shribak, E. Kostenyukova, I. Pritula, O. Bezkravnaya. Polarimetric studies of L-arginine-doped potassium dihydrogen phosphate single crystals J. Appl. Cryst. – 2020. – Vol.53. – P.1257-1265. <https://doi.org/10.1107/S1600576720010870>.
7. **O.N. Bezkravnaya**, G.N. Babenko, I.M. Pritula, A.D. Roshal, Yu.A. Gurkalenko, A.A. Kozlovski, E.I. Kostenyukova. Composite materials based on SiO₂-matrices saturated with DAST. Journal of Non-Crystalline Solids. – 2020. – Vol.535. – 119957, <https://doi.org/10.1016/j.jnoncrysol.2020.119957>. **Q1**.
8. V.V. Maslov, **O.M. Bezkravnaya**, I.M. Pritula, Spectral and emission characteristics of DCM and oxazine laser dyes in annealed silica xerogel. Applied Physics B: Lasers and Optics. – 2021. – Vol. 127(12). – 166. <https://doi.org/10.1007/s00340-021-07706-6>. **Q2**.
9. D.S. Sofronov, O.M. Lebedynskiy, **O.M. Bezkravnaya**, I.M. Pritula, P.V. Mateychenko, Mechanism of incorporation of oxide and aluminum oxyhydroxide into KDP crystalline matrix. Journal of Crystal Growth. – 2022. – Vol. 593. – 126765. <https://doi.org/10.1016/j.jcrysgro.2022.126765>. **Q2**.
10. Y.V. Taranets, M.K. Dryhailo, O.M. Bezkravnaya, I.M. Pritula. The role of amino acids in the processes of nucleation of pathogenic crystals of calcium oxalate monohydrate under human body imitating conditions. Journal of Crystal Growth. – 2023. – Vol. 602. – 126973. <https://doi.org/10.1016/j.jcrysgro.2022.126973>. **Q2**.