

CURRICULUM VITAE



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Education:

- 2001 – B. Sc. National Technical University “Kharkiv Polytechnic Institute” (Materials Science)
2003 – M. Sc. National Technical University “Kharkiv Polytechnic Institute” (Materials Science)
2008 – Ph. D. Institute for Single Crystals NASU, Kharkiv, Ukraine (Solid-State Physics, Technical Science)

Career/Employment:

2004-2007	PhD Student	Institute for Single Crystals NASU, Kharkiv, Ukraine
2004-2008	Engineer	Institute for Single Crystals NASU, Kharkiv, Ukraine
2008-2014	Junior Researcher	Institute for Single Crystals NASU, Kharkiv, Ukraine
2014-2015	Researcher	Institute for Single Crystals NASU, Kharkiv, Ukraine
2015-date	Senior Researcher	Institute for Single Crystals NASU, Kharkiv, Ukraine

Main field of activity and current research interest:

Materials science; Functional Materials; Optical Ceramics for Photonics, Laser, Scintillation Techniques; Solid-state physics; Rare-earth doped YAG; Solid-state sintering.

Honors, Awards, Fellowships, Membership of Professional Societies:

Prize the Verkhovna Rada of Ukraine for talented young scientists for the Series of the Scientific Articles “Functional materials for integrated control of background radiation” (2008); Scholarship of the President of Ukraine for young scientists (2009); Scholarship of the Kharkiv Regional State Administration for Young Scientists in the Field of Technical Sciences named after G.F. Proskura (2011).

Publications and patents:

40 Original Articles, 2 Patents; Scopus *h*-index: **10**

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Selected recent publications:

1. R.P. Yavetskiy, A.E. Balabanov, **S.V. Parkhomenko**, O.S. Kryzhanovska, A.G. Doroshenko, P.V. Mateychenko, A.V. Tolmachev, Jiang Li, Nan Jiang, L. Gheorghe, M. Enculescu. Effect of starting materials and sintering temperature on microstructure and optical properties of Y₂O₃:Yb³⁺ (5 at.%) transparent ceramics // Journal of Advanced Ceramics 10 (2020) 49-61. **2019IF: 2.889.** <https://doi.org/10.1007/s40145-020-0416-3> **Q2.**

2. 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. **2019IF: 4.495**. <https://doi.org/10.1016/j.jeurceramsoc.2019.10.048>. **Q1**.
3. 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 Y₂O₃-MgO composite SPS ceramics // Ceramics International 46 (2020) 6537-6543. **2019IF: 3.830**. <https://doi.org/10.1016/j.ceramint.2019.11.137>. **Q1**.
4. M.A. Chaika, P. Dluzewski, K. Morawiec, A. Szczepanska, K. Jablonska, G. Mancardi, R. Tomala, D. Hreniak, W. Strek, **N.A. Safronova**, A.G. Doroshenko, S.V. Parkhomenko, O.M. Vovk, The role of Ca²⁺ ions in the formation of high optical quality Cr⁴⁺,Ca:YAG ceramics // Journal of the European Ceramic Society 39 (2019) 3344-3352. **2019IF: 4.495**. <https://doi.org/10.1016/j.jeurceramsoc.2019.04.037>. **Q1**.
5. R.P. Yavetskiy, A.G. Doroshenko, **S.V. Parkhomenko**, I.O. Vorona, A.V. Tolmachev, D.Yu. Kosyanov, A.A. Vornovskikh, A.M. Zakharenko, V.Yu. Mayorov, L. Gheorghe, G. Croitoru, N. Pavel, V.V. Multian, V.Ya. Gayvoronsky. Microstructure evolution during reactive sintering of Y₃Al₅O₁₂:Nd³⁺ transparent ceramics: influence of green body annealing // Journal of the European Ceramic Society 39 (2019) 3867-3875. **2019IF: 4.495**. <https://doi.org/10.1016/j.jeurceramsoc.2019.05.013>. **Q1**.
6. 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})₂O₃ transparent ceramics // Ceramics International 45 (2019) 16002-16007. **2019IF: 3.83**. <https://doi.org/10.1016/j.ceramint.2019.05.111>. **Q1**.
7. M.A. Chaika, N.A. Dulina, A.G. Doroshenko, **S.V. Parkhomenko**, O.V. Gayduk, R. Tomala, W. Strek, D. Hreniak, G. Mancardi, O.M. Vovk, Influence of calcium concentration on formation of tetravalent chromium doped Y₃Al₅O₁₂ ceramics // Ceramics International 44 (2018) 13513-13519. **2019IF: 3.830**. <https://doi.org/10.1016/j.ceramint.2018.04.182>. **Q1**.
8. R.P. Yavetskiy, **S.V. Parkhomenko**, I.O. Vorona, A.V. Tolmachev, D.Yu. Kosyanov, V.G. Kuryavyi, V.Yu. Mayorov, L. Gheorghe, G. Croitoru, M. Enculescu. Effect of green body annealing on laser performance of YAG:Nd³⁺ ceramics // Ceramics International 44 (2018) 4529-4532. **2019IF: 3.830**. <https://doi.org/10.1016/j.ceramint.2017.11.192>. **Q1**.
9. I.O. Vorona, R.P. Yavetskiy, A.G. Doroshenko, **S.V. Parkhomenko**, V.N. Baumer, A.V. Tolmachev, D.Yu. Kosyanov, V.I. Vovna, V.G. Kuryavyi, M. Greculeasa, L. Gheorghe, S. Hau, C. Gheorghe, G. Croitoru. Structural-phase state and lasing of 5-15 at.% Yb³⁺:Y₃Al₅O₁₂ optical ceramics // Journal of the European Ceramic Society 37 (2017) 4115-4122. **2019IF: 4.495**. <http://doi.org/10.1016/j.jeurceramsoc.2017.05.023>. **Q1**.
10. R.P. Yavetskiy, D.Yu. Kosyanov, A.G. Doroshenko, **S.V. Parkhomenko**, P.V. Mateychenko, I.O. Vorona, A.V. Tolmachev, A.V. Lopin, V.N. Baumer, V.L. Voznyy. Microstructure evolution of SiO₂, ZrO₂-doped Y₃Al₅O₁₂:Nd³⁺ ceramics obtained by reactive sintering // Ceramics International 41 (2015) 11966-11974. **2019IF: 3.830**. <http://dx.doi.org/10.1016/j.ceramint.2015.06.009>. **Q1**.