

CURRICULUM VITAE

Yavetskiy Roman



Affiliation and official address:

Head of Department of Crystalline Materials of Complex Compounds, Institute for Single Crystals of NAS of Ukraine,
Ukraine, 61072, Kharkiv, 60 Nauky Ave.

E-mail: yavetskiy@isc.kharkov.ua, roman.yavetskiy@gmail.com

Education:

- 2000 – M. Sc. National Technical University “Kharkiv Polytechnic Institute” (Physics of Metals)
2006 – Ph. D. Institute for Single Crystals NASU (Solid-State Physics)
2017 – Dr. Sc. Institute for Single Crystals NASU (Materials Science)
2017 – Senior Researcher, Institute for Single Crystals NASU (Applied Physics and Nanomaterials)
2019 – Prof. Institute for Single Crystals NASU (Materials Science)

Career/Employment:

2000-2005	Engineer	Institute for Single Crystals NASU, Kharkiv, Ukraine
2005-2006	Junior Researcher	Institute for Single Crystals NASU, Kharkiv, Ukraine
2006-2007	Research Assistant	Institute for Single Crystals NASU, Kharkiv, Ukraine
2007-2010	Senior Researcher	Institute for Single Crystals NASU, Kharkiv, Ukraine
2010-2015	Head of Laboratory	Institute for Single Crystals NASU, Kharkiv, Ukraine
2016-2018	Senior Researcher	Institute for Single Crystals NASU, Kharkiv, Ukraine
2018 till now	Head of Department	Institute for Single Crystals NASU, Kharkiv, Ukraine

Main field of activity and current research interest:

Materials Sciences, Crystal Formation, Functional Materials, Optical Ceramics;
Fabrication of Oxide Nanopowders, Solid-State Sintering of Nanopowders;
Structural-Phase State of Optical Ceramics, as well as Nanostructured Ceramics (Rare-earth doped Y_2O_3 , Lu_2O_3 , $Y_3Al_5O_{12}$, etc.); Transformation-Assisted Consolidation of Nanopowders.

Honors, Awards, Fellowships, Membership of Professional Societies:

The President's of Ukraine Prize for Young Scientists (2006); Fellowship for Young International Scientists of Chinese Academy of Sciences (2013-2014); Award of the National Academy of Sciences of Ukraine for the Training of Scientific Brainpower (2018); Editorial Board Member of the Journal “Functional Materials” (2019); Scholarship of the Kharkiv Regional State Administration for Outstanding Scientists in the Field of Technical Sciences named after G.F. Proskura (2019-2020); Member of the Ukrainian Materials Science Society named after I.M. Frantsevich.

Publications and patents:

1 Book, 4 Chapters in Books, 99 Original Articles (Scopus), 5 Patents. **h-index: 20**

<http://www.scopus.com/authid/detail.url?authorId=8287747500>

<http://orcid.org/0000-0003-4260-5481>

https://www.researchgate.net/profile/Roman_Yavetskiy

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 Y₂O₃-Al₂O₃-Nd₂O₃ 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 Ho³⁺:Y₂O₃-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. **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. <https://doi.org/10.1007/s40145-020-0416-3>. **Q1**.
6. 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**.
7. 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. <https://doi.org/10.1016/j.ceramint.2019.11.137>. **Q1**.
8. **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. <https://doi.org/10.1016/j.jeurceramsoc.2019.05.013>. **Q1**.
9. **R.P. Yavetskiy**, M.V. Dobrotvorskaya, A.G. Doroshenko, A.V. Tolmachev, I.A. Petrusha, V.Z. Turkevich, R. Tomala, D. Hreniak, W. Strek, V.N. Baumer. Fabrication and luminescent properties of (Y_{0.99}Eu_{0.01})₂O₃ transparent nanostructured ceramics // *Optical Materials* 78 (2018) 285-291. <https://doi.org/10.1016/j.optmat.2018.02.034>. **Q2**.
10. 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. <https://doi.org/10.1016/j.jeurceramsoc.2017.05.023>. **Q1**.