

# CURRICULUM VITAE



**Pavlo Mateychenko**

## **Affiliation and official address:**

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

E-mail: [paul@isc.kharkov.ua](mailto:paul@isc.kharkov.ua), [paulmat70@gmail.com](mailto:paulmat70@gmail.com)

## **Education:**

1985 – M. Sc. Kharkov State University, USSR (Physics).

## **Career/Employment:**

1985-1987	Engineer	Institute for Single Crystals, Kharkov, USSR
1987-2005	Junior Researcher	Institute for Single Crystals NASU, Kharkiv, Ukraine
2005 - data	Researcher	Institute for Single Crystals NASU, Kharkiv, Ukraine

## **Main field of activity and current research interest**

Electron microscopy and electron-probe microanalysis of semiconductor and dielectric crystals, ceramics and powders;

Development of Functional Optical Ceramics on the Basis of Refractory Oxides for Laser and Scintillation Technique; IR-transparent Nanocomposite Ceramics for Laser Applications.

## **Publications and patents**

177 Original Articles, 1 Patent, Scopus *h*-index: **11**

<https://www.scopus.com/authid/detail.uri?authorId=6508299257>;

<https://orcid.org/0000-0002-4074-195X>

## **Selected publications:**

(1) N.A. Dulina, Y.V. Yermolayeva, A.V. Tolmachev, Z.P. Sergienko, O.M. Vovk, E.A. Vovk, N.A. Matveevskaya, **P.V. Mateychenko**, Synthesis and characterization of the crystalline powders on the basis of  $\text{Lu}_2\text{O}_3:\text{Eu}^{3+}$  spherical submicron-sized particles // Journal of the European Ceramic Society 30 (2010) 1717–1724

<https://doi.org/10.1016/j.jeurceramsoc.2010.01.019>. **Q1**.

(2) N.A. Dulina, T.G. Deineka, R.P. Yavetskiy, Z.P. Sergienko, A.G. Doroshenko, **P.V. Mateychenko**, O.M. Vovk, N.A. Matveevskaya, Comparison of dispersants performance on the suspension  $\text{Lu}_2\text{O}_3:\text{Eu}^{3+}$  stability and high-density compacts on their basis // Ceramics International 37 (2011) 1645–1651

<https://doi.org/10.1016/j.ceramint.2011.01.042>. **Q1**.

(3) N.A. Dulina, V.N. Baumer, M.I. Danylenko, **P.V. Mateychenko**, A.V. Tolmachev, O.M. Vovk, R.P. Yavetskiy, Effects of phase and chemical composition of precursor on structural and

- morphological properties of  $(\text{Lu}_{0.95}\text{Eu}_{0.05})_2\text{O}_3$  nanopowders // *Ceramics International* 39 (2013) 2397-2404 <http://dx.doi.org/10.1016/j.ceramint.2012.08.092>. **Q1**.
- (4) 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  $\text{SiO}_2$ ,  $\text{ZrO}_2$ -doped  $\text{Y}_3\text{Al}_5\text{O}_{12}:\text{Nd}^{3+}$  ceramics obtained by reactive sintering // *Ceramics International* 41 (2015) 11966-11974. <http://dx.doi.org/10.1016/j.ceramint.2015.06.009>. **Q1**.
- (5) M.P. Demesh, A.S. Yasukevich, N.V. Kuleshov, M.B. Kosmyrna, **P.V. Mateychenko**, B.P. Nazarenko, A.N. Shekhovtsov, A.A. Kornienko, E.B. Dunina, V.A. Orlovich, I.A. Khodasevich, W. Paszkowicz, A. Behrooz. Growth and spectroscopic properties of  $\text{Ca}_9\text{Nd}(\text{VO}_4)_7$  single crystal // *Optical Materials* 60 (2016) 387-393. <https://doi.org/10.1016/j.optmat.2016.08.014>. **Q1**.
- (6) S.L. Yefimova, I.I. Bepalova, G.V. Grigorova, A.V. Sorokin, **P. Mateychenko**, X. Cui, Yu.V. Malyukin. Synthesis and characterization of mesoporous  $\text{CaCO}_3@\text{PSS}$  microspheres as a depot system for sustained Methylene Blue delivering // *Microporous and Mesoporous Materials* 236 (2016) 120-128. <https://doi.org/10.1016/j.micromeso.2016.08.037>. **Q1**.
- (7) M.B. Kosmyrna, **P.V. Mateychenko**, B.P. Nazarenko, A.N. Shekhovtsov, S.M. Aksenov, D.A. Spassky, A.V. Mosunov, S.Yu. Stefanovich. Novel laser crystals in  $\text{Ca}_9\text{Y}(\text{VO}_4)_{7-x}(\text{PO}_4)_x$  mixed system // *Journal of Alloys and Compounds* 708 (2017) 285-293. <https://doi.org/10.1016/j.jallcom.2017.02.219>. **Q2**.
- (8) A. Puzan, V. Baumer, **P. Mateychenko**. Novel modification of anhydrous transition metal oxalates from powder diffraction // *Acta Crystallographica Section C: Structural Chemistry* 73 (2017) 911-916. <https://doi.org/10.1107/S2053229617012839>. **Q2**.
- (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  $\text{YAG}:\text{Cr},\text{Mg}$  ceramics // *Optical Materials* 98C (2019) 109505 <https://doi.org/10.1016/j.optmat.2019.109505>. **Q2**.
- (10) O. Zhikol, S. Shishkina, V. Lipson, A. Semenenko, A. Mazepa, A. Borisov, **P. Mateychenko**. Low molecular weight supramolecular dehydro-epiandrosterone -based gelators: Synthesis and molecular modeling study // *New Journal of Chemistry* 43 (2019) 13112-13121. <https://doi.org/10.1039/C9NJ01390C>. **Q1**.
- (11) 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  $\text{Y}_2\text{O}_3:\text{Yb}^{3+}$  5 at.% transparent ceramics // *Journal of Advanced Ceramics* 10 (2020) 49-61. <https://doi.org/10.1007/s40145-020-0416-3>. **Q2**.