

# CURRICULUM VITAE



**Dobrotvorska Mariya**

## **Affiliation and official address:**

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

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

## **Education:**

1980 – M. Sc.     Urals State University, Sverdlovsk, USSR (Physics)  
1990 – Ph. D.     Institute for Single Crystals, Kharkov, USSR (Solid-State Physics)  
2006                Diploma of Senior Researcher (Solid-State Physics), Institute for Single Crystals NASU, Kharkiv

## **Career/Employment:**

|               |                       |   |
|---------------|-----------------------|---|
| 1980-1982     | Junior Researcher     | Institute of Metals Physics of Urals Department of USSR Academy of Sciences, Sverdlovsk, USSR |
| 1983-1993     | Scientific Researcher | Physics-Technical Department of Kharkov State University, Kharkov, Ukraine                    |
| 1993 till now | Senior Researcher     | Institute for Single Crystals NASU, Kharkiv, Ukraine  |

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

Investigations of Surface Composition and Electron Structure of Functional Materials with X-ray Photoelectron Spectroscopy; Optical Ceramics, Nanotechnologies.

## **Honors, Awards, Fellowships, Membership of Professional Societies:**

IWISE (International Women in Science and Engineering) fellow.

## **Publications and patents:**

97 Original Articles, 1 Patent; Scopus *h*-index: 9

<https://www.researchgate.net/profile/Mariya-Dobrotvorskaya/scores>

<https://www.scopus.com/authid/detail.uri?authorId=57212091837>

## **Selected recent publications:**

1. O.O. Matvienko, Yu.N. Savin, O.S. Kryzhanovska, O.M. Vovk, **M.V. Dobrotvorska**, N.V. Pogorelova, V.V. Vashchenko. Dispersion and aggregation of quantum dots in polymer-inorganic hybrid films // Thin Solid Films 531 (2013) 226-230. **2019IF: 2.030**. <https://doi.org/10.1016/j.tsf.2013.03.046>. **Q2**.
2. E.I. Rogacheva, A.V. Budnik, M.V. Dobrotvorskaya, A.G. Fedorov, S.I. Krivonogov, P.V. Mateychenko, O.N. Nashchekina, A.Yu. Sipatov. Growth and structure of thermally evaporated Bi<sub>2</sub>Te<sub>3</sub> thin films // Thin Solid Films 612 (2016) 128-134. **2019IF: 2.030** <https://doi.org/10.1016/j.tsf.2016.05.046>. **Q2**.
3. 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<sub>0.99</sub>Eu<sub>0.01</sub>)<sub>2</sub>O<sub>3</sub> transparent nanostructured ceramics // Optical Materials 78 (2018) 285-291. **2019IF: 2.776**. <https://doi.org/10.1016/j.optmat.2018.02.034>. **Q2**.

4. I.O. Vorona, R.P. Yavetskiy, **M.V. Dobrotvorskaya**, A.G. Doroshenko, S.V. Parkhomenko, A.V. Tolmachev, D.Yu. Kosyanov, L. Gheorghe, C. Gheorghe, S. Hau, M. Enculescu. 1532 nm sensitized luminescence and up-conversion in Yb,Er:YAG transparent ceramics // Optical Materials 77C (2018) 221-225. **2019IF: 2.776**. <https://doi.org/10.1016/j.optmat.2018.01.038>. **Q2**.
5. N.A. Safronova, O.S. Kryzhanovska, **M.V. Dobrotvorskaya**, 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<sub>2</sub>O<sub>3</sub>–MgO composite SPS ceramics, Ceramics International, 46 (2020) 6537–6543. **2019IF: 3.830**. <https://doi.org/10.1016/j.ceramint.2019.11.137>, **Q1**.
6. N.A. Safronova, R.P. Yavetskiy, O.S. Kryzhanovska, S.V. Parkhomenko, A.G. Doroshenko, **M.V. Dobrotvorskaya**, A.V. Tolmachev, R. Boulesteix, A. Maître, T. Zorenko, Yu. Zorenko, Fabrication and VUV luminescence of Lu<sub>2</sub>O<sub>3</sub>:Eu<sup>3+</sup> (5 at.%) nanopowders and transparent ceramics, Optical Materials 101 (2020) 109730. **2019IF: 2.776**. <https://doi.org/10.1016/j.optmat.2020.109730>. **Q2**.
7. I.O. Vorona, A.E. Balabanov, **M.V. Dobrotvorskaya**, R.P. Yavetskiy, O.S. Kryzhanovska, L.Y. Kravchenko, S.V. Parkhomenko, P.V. Mateychenko, V.N. 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) pp. 861-866. **2019IF: 4.495**. – <https://doi.org/10.1016/j.jeurceramsoc.2019.10.048>. **Q1**.
8. N.A. Safronova, R.P. Yavetskiy, O.S. Kryzhanovska, **M.V. Dobrotvorskaya**, 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<sup>3+</sup>:Y<sub>2</sub>O<sub>3</sub>–MgO nanocomposite ceramics for potential laser applications, Ceramics International 47 (2021) 1399–1406. **2019IF: 3.830**. <https://doi.org/10.1016/j.ceramint.2020.08.263>, **Q1**.
9. D.Yu. Kosyanov, A.A. Vornovskikh, A.M. Zakharenko, E.A. Gridasova, R.P. Yavetskiy, **M.V. Dobrotvorskaya**, A.V. Tolmachev, O.O. Shichalin, E.K. Papynov, A.Yu. Ustinov, V.G. Kuryavy, A.A. Leonov, S.A. Tikhonov. Influence of sintering parameters on transparency of reactive SPSed Nd<sup>3+</sup>:YAG ceramics // Optical Materials 112 (2021) 110760. **2019IF: 2.776**. <https://doi.org/10.1016/j.optmat.2020.110760>. **Q2**.