**PERSONAL INFORMATION**

*Name:* Dr. Valentin Milichko

*Born:* April 5, 1988, Artem, Russia

*Telephone*: +7 931 356 91 41

*Researcher ID:* <http://www.researcherid.com/rid/N-7112-2016>

*Google Scholar:* <https://scholar.google.ru/citations?user=jABTlgoAAAAJ&hl=ru&oi=sra>

*Scopus Author ID:* 55436864100

*ITMO profile:* <https://metalab.ifmo.ru/people/~milichko>

**EDUCATION**

*2010 – 2014* PhD in Physics. Institute of Automation and Control Processes, Russian Academy of Sciences, Laboratory of Fiber Optics, Russia

*Thesis:* Anomalous optical nonlinearity of liquid dielectric nano systems in field of laser radiation

*Promotor:* Prof. V. P. Dzyuba, *Graduation date*: June 30, 2014

*2005 – 2010* MSc in Quantum Optics (*Cum Laude*). Far East Federal University, Russia

**CURRENT POSITION**

*2017 – Present* Assistant Professor, Department of Nanophotonics and Metamaterials, ITMO University, Russia. Work on nonlinear optics of metal-organic materials and biomaterials.

**RESEARCH EXPERIENCE SINCE GRADUATED**

*2014 – 2017* Postdoctoral researcher in ITMO University, the Metamaterials Laboratory chaired by Prof. P.A. Belov, Russia. Work on all-dielectric nanophotonics.

*2014* Assistant researcher in Institute of Automation and Control Processes, Russian Academy of Science, Russia. Work on excitons in dielectric materials.

*2014* Lecturer in Far Eastern Federal University, Vladivostok, Russia.

**STATISTICS**

* **79 peer-reviewed papers** (articles, proceedings and notes)
* **H-index: 18**; sum of times cited without self-citation 860 (*Scopus*)
* **6 invited presentations** at international conferences & symposia (+ 2 in 2018); 18 oral presentations at international conferences
* Average **Impact Factor of all papers**: **8.78**
* **8 grants** (~1 M€) as a main and co-applicant since 2012

**AWARDS**

2018 Medal of Russian Academy of Science (physics and astronomy)

2018 Scopus Awards Russia “Most cited young researcher”

2018 Best Russian-French project funded by the Ministry of Education and Science of the Russian Federation

2017 Best Review Article in *Phys. Usph*.

2017 Best Research work in Engineer Science funded by the Russian Science Foundation

2017 Personal Grant from the President of Russian Federation

2013 Best BA Student Monitor in Far Eastern Federal University

2012 and 2011 SPIE Scholarship in Optics and Photonics

**TEACHING ACTIVITIES**

*2015 - Present* Lecturer MSc course “Technological and experimental methods in nanophotonics”.

*2011 - 2014* Lecturer BA course “Classical Mechanics”

*2009 - 2011* Laboratory classes for BA course “General Physics”

**ACADEMIC MEMBERSHIPS**

*2010 – Present* American Chemical Society (ACS)

*2010 – Present* Society of Photo-Optical Instrumentation Engineers (SPIE)

*2017 – Present* American Association for the Advancement of Science (AAAS)

**OTHER ACADEMIC ACTIVITIES**

*2019* Session chair at theInternational Conference “METANANO’19” (St. Petersburg)

*2018* Session chair at theInternational Conference “METANANO’18” (Sochi)

*2017* Session chair at the International Conference “METANANO’17” (Vladivostok)

*2017 – Present* Reviewer of national research grants (Federal Target Program of the Ministry of Education and Science of the Russian Federation; Russian Foundation for Basic Research)

*2015 – Present* Reviewer of international peer-reviewed journals: Advanced Materials, Laser & Photonics Reviews, Nanoscale, Applied Surface Science.

**MAJOR PERSONAL COLLABORATIONS**

Prof. E.A. Pidko (TU Delft, the Netherlands). *Computational chemistry*.

Prof. Y. Kivshar (ANU, Australia). *All-dielectric nanophotonics.*

Prof. V.P. Fedin (Nikolaev Institute of Inorganic Chemistry, Russia). *Coordination chemistry.*

Prof. E. Hey-Hawkins (Universität Leipzig, Germany). *Coordination chemistry.*

Prof. T. Belmonte (Institut Jean Lamour). *X-ray and electron microscopy.*

**10 KEY PUBLICATIONS**

1. Y.A. Mezenov, A.A. Krasilin, V.P. Dzyuba, A. Nominé, V.A. Milichko, “Metal–Organic Frameworks in Modern Physics: Highlights and Perspectives” *Advanced Science* **2019**, accepted (IF = 15.8; doi: 10.1002/advs.201900506).

2. L.R. Mingabudinova, A.S. Zalogina, A.A. Krasilin, M.I. Petrova, P. Trofimov, Y.A. Mezenov, E.V. Ubyivovk, P. Lönnecke, A. Nominé, J. Ghanbaja, T. Belmonte, V.A. Milichko, “Laser printing of optically resonant hollow crystalline carbon nanostructures from 1D and 2D metal-organic frameworks” *Nanoscale* **2019**, *11*, 10155-10159 (IF = 6.97; doi: 10.1039/c9nr02167a).

3. A.A. Krasilin, K. Volodina, A.A. Sukhova, M.I. Petrov, D.A. Zuev, V.A. Dyachuk, V.A. Milichko, “The conformation of bovine serum albumin adsorbed to the surface of single all-dielectric nanoparticles following light-induced heating” *Journal of Biophotonics* **2018**, *11*, e201700322 (IF = 3.768; doi: 10.1002/jbio.201700322).

4. V.A. Milichko, D.A. Zuev, D.G. Baranov, G.P. Zograf, K. Volodina, A.A. Krasilin, I.S. Mukhin, P.A. Dmitriev, V.V. Vinogradov, S.V. Makarov, P.A. Belov, “Metal-Dielectric Nanocavity for real-time tracing molecular events with temperature feedback” *Laser and Photonics Reviews* **2018**, *12*, 1700227 (IF = 9.056; doi: 10.1002/lpor.201700227).

5. S.V. Makarov, I.S. Sinev, V.A. Milichko, F.E. Komissarenko, D.A. Zuev, E.V. Ushakova, I.S. Mukhin, Y.F. Yu, A.I. Kuznetsov, P.A. Belov, I.V. Iorsh, A.N. Poddubny, A.K. Samusev, Y.S. Kivshar, “Nanoscale Generation of White Light for Ultrabroadband Nanospectroscopy” *Nano Letters* **2018**, *18*, 535-539 (IF = 12.279; doi: 10.1021/acs.nanolett.7b04542).

6. V.A. Milichko, S.V. Makarov, A.V. Yulin, A.V. Vinogradov, A.A. Krasilin, E. Ushakova, V.P. Dzyuba, E. Hey‐Hawkins, E.A. Pidko, P.A. Belov, “van der Waals metal-organic framework as an excitonic material for advanced photonics” *Advanced Materials* **2017**, *29*, 1606034 (IF = 25.809; doi: 10.1002/adma.201606034).

7. L.R. Mingabudinova, V.V. Vinogradov, V.A. Milichko, E. Hey-Hawkins, A.V. Vinogradov, “Metal–organic frameworks as competitive materials for non-linear optics” *Chemical Society Reviews* **2016**, *45*, 5408 (IF = 40.443; doi: 10.1039/c6cs00395h).

8. D.A. Zuev, S.V. Makarov, I.S. Mukhin, V.A. Milichko, S.V. Starikov, I.A. Morozov, I.I. Shishkin, A.E. Krasnok, P.A. Belov, “Fabrication of Hybrid Nanostructures via Nanoscale Laser-Induced Reshaping for Advanced Light Manipulation” *Advanced Materials* **2016**, *28*, 3087-3093 (IF = 25.809; doi: 10.1002/adma.201505346).

9. A.V. Yakovlev, V.A. Milichko, V.V. Vinogradov, A.V. Vinogradov, “Sol-gel assisted inkjet hologram patterning” *Advanced Functional Materials* **2015**, *25*, 7375-7380 (IF = 15.621; doi: 10.1002/adfm.201503483).

10. S. Makarov, S. Kudryashov, I. Mukhin, A. Mozharov, V. Milichko, A. Krasnok, P. Belov, “Tuning of magnetic optical response in a dielectric nanoparticle by ultrafast photoexcitation of dense electron−hole plasma” *Nano Letters* **2015**, *15*, 6187–6192 (IF = 12.279; doi: 10.1021/acs.nanolett.5b02534).

**REPRESENTATIVE BOOK CHAPTERS**

1. V.A. Milichko, Y.N. Kulchin, V.P. Dzyuba, *"Dielectrics: Optics of Dielectric Nanoobjects and Nanosystems"* in“CRC Concise Encyclopedia of Nanotechnology” (edited by B.I. Kharisov, O.V. Kharissova, U. Ortiz-Mendez), Taylor & Francis Group, **2015**, 174-181.

2. V.P. Dzyuba, Y.N. Kulchin, V.A. Milichko, *“Photonics of heterogeneous dielectric nanostructures”* in “Nanocomposites – New Trends and Development” (edited by Farzad Ebrahimi), Chapter 15, InTech, Rijeka, Croatia, **2012**.

**SELECTED INVITED LECTURES**

1. V.A. Milichko, invited lecture for MS Students “Molecular Movie” at the *School for photonics and nanotechnology*, Scientific Centre “Sirius”, Sochi, Russia, 1-6 November **2019**.

2. V.A. Milichko, invited lecture for MS Students “Soft porous crystals” at the *School for photonics and nanotechnology,* Scientific Centre “Sirius”, Sochi, Russia, 15-18 September **2018**.

3. V.A. Milichko, K.S. Frizyuk, P.A. Dmitriev, D.A. Zuev, G.P. Zograf, S.V. Makarov, P.A. Belov, invited talk “Hybrid nanocavity for molecular sensing” at the *IEEE International Conference on Microwaves, Antennas, Communications and Electronic Systems, COMCAS 2017,* Tel-Aviv, Israel, 13-15 November **2017**.

4. V.A. Milichko, invited lecture for PhD students “Methods for visualizing and controlling the states of single molecules” at the *Actual problems of chemistry and biology,* Vladivostok, Russia, 4-9 September **2017**.