

Sergey Makarov

Date of birth: 25 April 1988

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H-index: 40 (Scopus)

Citations: 5000+ (Scopus)

Education:

2005-2008: Far East Federal University (Vladivostok, Russia).

2008-2011: National Research Nuclear University “MEPhI” (Moscow, Russia). Specialty: solid state physics.

2014: PhD degree, Lebedev Physics Institute of the Russian Academy of Sciences (Moscow, Russia).

2018: Habilitation (Doctor of Sciences), ITMO University (St Petersburg, Russia).

Job experience:

04.2008 – 12.2008: **Assistant** in laboratory of NRNU “MEPhI” (Moscow, Russia)

05.2013 – 09.2013 and 08.2014: **Visiting researcher** at Vienna University of Technologies (Vienna, Austria).

09.2011 – 01.2015: **Research Assistant** at P.N. Lebedev Physics Institute (LPI) of the Russian Academy of Sciences (Moscow, Russia).

01.2015-03.2017: **Postdoc** at ITMO University (Saint Petersburg, Russia).

since 03.2017: **Head of Laboratory** of Hybrid Nanophotonics and Optoelectronics at ITMO University (Saint Petersburg, Russia).

05.2019-06.2019: **Visiting Professor** at University of Lorraine (Nancy, France)

since 01.2020: **Professor** of the Department of Physics and Engineering at ITMO University (Saint Petersburg, Russia).

05.2021-01.2023: **Dean** of the Faculty of Photonics at ITMO University (Saint Petersburg, Russia).

since 07.2022: **Professor and co-director of a Research Center** at Harbin Engineering University (Qingdao, China).

Research areas:

Nanophotonics, halide perovskites, nanoscience, nanolasers, laser-matter interaction, ultrafast and nonlinear phenomena at nanoscale.

Visiting scholar:

Australian National University (Australia) - 2017; Laser Zentrum Hannover (Germany) - 2017; Texas University at Dallas (USA) - 2018; City University of New York (USA) - 2019, 2020

Achievements:

Since 2019 - In top-2% of the most influential scientists in the world (according to Stanford University).

Since 2021 - Top-10 in Russia in Electronics and Electrical Engineering (according to Research.com).

Honors and Awards:

2023.12 - **National-level Talent Program**

2023.12 - Shandong Province Outstanding Youth Science Fund Project (Overseas).

2023.09 – **International Excellent Young Scientist**, given by NSFC, China

2023.08 – Shandong Province Overseas Talents “**Quick Support**” **Award**, China

2023.05 – **Euler Award for young researchers**, Government of Saint Petersburg (<https://spbrc.ru/awards/awards-spbrc/eyler>), Russia,

2023.02 – **Qingdao "Future Star" Award** given by Qingdao West Coast New Area Talent Recruitment Center, China,

2021.03 – **Research Excellence Award Russia**, [Elsevier](https://www.elsevier.com), Russia

2020.02 – **Award of the President of the Russian Federation in the field of science and innovation for young scientists** (the most prestigious award for scientists younger than 35 years and given by President personally). (<http://kremlin.ru/events/president/news/62716>), Russia,

2019.05 - **Medal of Russian Academy of Sciences for Young Researchers in Physics** (<http://yras-goldmedal.ru/>), Russia

2019.01 - **President's of Russian Federation Grant** for perovskite solar cells with nanostructures (the award was given the Gubernator of Saint Petersburg Personally), Russia,

2016.10 - **Alferov's Foundation Medal for Young Researchers (younger than 33 years)**, (<http://alferov-fond.ru/2016>), the award was given by Nobel Laureate Prof. Alferov personally), Russia

2016.05 - **Saint-Petersburg Government Award in the field of technology** (the award was given by the Gubernator of Saint Petersburg Personally), Russia,

2015.01 - **President's of Russian Federation Scholarship**, Russia

2014.12 - **Fellowship of ITMO University** (<https://fellowship.itmo.ru/>), Russia

2014.05 and 2012.05 - **N.G. Basov's name awards for young researches** in laser physics, Russia

2012.12 - **President's of Russian Federation Scholarship for Students to Study Abroad**, Russia

2012.11 - **Award related to N.G. Basov 90-years anniversary**, Russia

2011.01 - **SPIE Scholarship in Optics and Photonics**, Russia

2011.05 - **Winner of Scholarship of Foundation for Promotion of Small companies in Science and Technology**, Russia

2007.01 - **Gubernatorial Scholarship for excellent studying**, Russia.

Grants:

Received as a PI or co-PI 9 Russian research grants with a total budget around **4.5M USD** (for the period 2015-2025). PI of several grants of the Russian Science Foundation, Foundation for Basic Research, and also successfully carried out a number of Research and Development works with Russian companies.

Key projects:

1. Projects within the framework of ITMO's 2030 Development Strategy "Solution processible laser diodes" (01.01.2022-31.12.2024, **1 mln USD**). Role PI.
2. Grant of Ministry of Science and Higher Education of the Russian Federation «Organo-inorganic materials with integrated nanophotonic structures for advanced optical devices» (16.02.2017-31.12.2021, **1.2 mln USD**). Role co-PI.
3. Grant of Ministry of Science and Higher Education of the Russian Federation «Nanolasers and microlasers of novel nanomaterials in advanced optical architectures» (01.06.2021-31.12.2023, **1 mln USD**). Role co-PI.
4. Russian Science Foundation «Halide perovskite nanomaterials and multifunctional optoelectronic devices based on them» (17.04.2019-31.12.2022, **1.1 mln USD**). Role PI.
5. Russian Science Foundation «Photonic sources based on hybrid perovskites using nanophotonic technologies» (31.07.2020- 30.06.2022, **150 kUSD**). Role PI.
6. Presidential Grant «Matrix synthesis of hybrid perovskite structures for use in photonics» (01.01.2021-31.12.2022, **20 kUSD**). Role PI.
7. Presidential Grant «Perovskite solar cells enhanced by resonant nanoparticles» (11.06.2019-31.12.2020, **15 kUSD**). Role PI.
8. Russian Foundation for Basic Research «New methods for the creation and study of nonlinear dielectric and hybrid nanostructures» (01.01.2017-31.12.2019, **20 kUSD**). Role PI.
9. Russian Foundation for Basic Research «Creation and study of optical properties of new composite materials based on metal-organic compounds with integrated dielectric nanostructures» (01.01.2017- 31.12.2019, **20 kUSD**). Role PI.

Teaching: Lectures within the course "Experimental methods in nanophotonics" (1 semester, Master Program).

Students supervision:

PhD students: Georgy Zograf (2017-2020), Tatiana Liashenko (2018-2020), Ekaterina Tiguntseva (2017-2021), Alexander Berestennikov (2017-2021), Alexandra Furasova (2017-2021), Pavel Tonkaev (2020-2023), Mikhail Masharin (2020-2023), Artyom Polushkin (2020-2024), Ruslan Azizov (2021-2025), Alexander Marunchenko (2021-2025), Guangbo Zhou (2023-2027), Igor Margaryan (2023-2027), Darina Klimenko (2023-2027).

Master students: more than 10.

Invited International Seminars, Colloquia and Lectures:

Stanford University (USA), Geballe Laboratory for Advanced Materials – May 2019
Denmark Technical University (Denmark), Department of Photonics Engineering – May 2019
Texas University at Dallas (USA), NanoTech Institute – May 2019
Johannes Kepler University Linz (Austria), Institute of Physical Chemistry – March 2019
Sejong University (Korea), Department of Physics and Astronomy – August 2018
RIKEN (Tokyo, Japan), Theoretical Quantum Physics Laboratory - August 2018
City University of Hong Kong (SAR Hong Kong), Centre for Functional Photonics – December 2017
Chalmers University of Technology (Sweden), Department of Physics – November 2017
ETH Zurich (Switzerland), Optical Nanomaterial Group – April 2017
EPFL (Switzerland), BioEngineering Department – April 2017
University of Virginia (USA), Department of Materials Science and Engineering – April 2016
City University of New York (USA), Physics Department – April 2016
Texas University at Austin (USA), Department of Electrical and Computer Engineering – March 2016

INVITED CONFERENCE TALKS:

1. **Plenary** - 10CSMD (Shenzhen, China, 2024) <https://www.brics-ofsmd.com>
2. Invited - ICMAT 2023 (Singapore, 2023) <https://icmat2023.mrs.org.sg/>
3. Invited - MRS Fall Meeting (Boston, USA, 2021, online)
4. **Plenary** - APCOM (Vladivostok, Russia, 2022, <http://apcom.dvo.ru/2022/>)
5. **Plenary** – FLAMN 2022 (St Petersburg, Russia, 2022, <https://flamn.itmo.ru/>)
6. **Plenary** - International Industry-University-Research Conference (Harbin, China, 2022)
7. Invited - AAAFM UCLA (California, USA, 2021) (<https://aaafm.org/ucla2021/invited-speakers/>)
8. Advanced Laser Technologies (Moscow, Russia, 2021) (<https://altconference.org/alt21>)
9. Invited - International Workshop on Advanced Display Materials (Hong Kong, 2021 <http://adw.ust.hk/>)
10. Invited – MAPPIC 2020 (Moscow, Russia, 2020, <http://nmse-lab.ru/index.php/en/mappic-en>)
11. **Keynote** – BIC-FM 2020 (Moscow, Russia, 2020, <http://bic-fm.skoltech.ru/>)
12. **Plenary** – Ultrafast Light 2020 (Moscow, Russia, 2020, <https://ultrafastlight.ru/plenary-speakers.html>)
13. Invited – FLAMN-2019 (St Petersburg, Russia, 2019, <https://flamn.ifmo.ru/>)
14. Invited – POEM2019 (London, UK, April 2019) <https://www.poem2019.com/speakers>
15. Invited – Photonics West (Section: “Colloidal Nanoparticles for Biomedical Applications XIV”, San Francisco, 2019) <https://spie.org/PWB/conferencedetails/colloidal-nanoparticles-biomedical-applications>
16. Invited – Nanomaterials Trends - Hybrid nanocomposites and nanogranular materials (Brescia, Italy, 2018, <https://brescia.unicatt.it/eventi/evt-nanomaterialstrends-hybrid-nanocomposites-and-nanogranular-materials>)
17. Invited – METANANO'2018 (Sochi, Russia, 2018, <https://metanano.ifmo.ru/2018/>)
18. **Plenary** – ICNMP-2018 (Santiago de Cuba, Cuba, 2018, <http://interconf.pro>)

19. Invited – STRANN-2016 (St Petersburg, Russia, 2016, <http://www.strann.org/>)
20. Invited – FLAMN-2016 (St Petersburg, Russia, 2016, <http://ipc.ifmo.ru/flamn16/>)
21. Invited – PIERS-2013 (Stockholm, Sweden, 2013, <http://www.piers.org/piers2013Stockholm/>)
22. Invited – PIERS-2012 (Kuala Lumpur, Malaysia, 2012, <http://www.piers.org/piers2012kualalumpur/>)

Editor in journals:

Opto-Electronic Advances (IF=14, **Associated Editor** since 2020), Advanced Photonics Research (**Advisory Board Member** since 2020), ACS Materials Au (**Advisory Board Member** since 2021).

Guest Editor: Nanophotonics (Special Issue “Nonlinear Nanophotonics”, 2024), Light: Advanced Manufacturing (Special Issue “Perovskite Nanomaterials and Nanostructures Fabrication for Photonics and Optoelectronics”, 2024).

Referee in journals:

Nature Nanotechnology, Advanced Materials, Materials Today, ACS Nano, Nature Communications, Advanced Functional Materials, Nano Letters, Small, Angewandte Chemie, Laser&Photonics Reviews, Nanoscale, ACS Photonics, Nanophotonics, etc.

Referee for grant agencies:

1. European Research Council (since 2021) <https://erc.europa.eu/>
2. Swiss National Science Foundation (since 2021) <https://www.snf.ch/en>
3. United States – Israel Binational Science Foundation (since 2021) <https://www.bsf.org.il/>
4. Russian Science Foundation (since 2017) <http://rscf.ru/en>
5. Czech Science Foundation (since 2019) <https://qacr.cz/en/>
6. Ministry of Higher Education of Russian Federation (since 2019) <https://p220.ru/en/>
7. International Fund of Technological Development (since 2020) <https://xn--l1aifh.xn--p1ai/en/>.
8. Member of Scientific Committee of National University Higher School of Economics

Member of dissertation committees:

- Dissertation Council of Emanuel Institute of Biochemical Physics RAS on specialty “Nanotechnology and Nanomaterials”.
- Dissertation Council of ITMO University on specialty “Solid State Physics”.

Conference and School organizer:

Chair of METANANO School in Qingdao (2023, <https://school.physics.itmo.ru/>)

Chair of School on Advanced Light-Emitting and Optical Materials ("SLALOM", 2019,2020,2021.2022
<https://slalom.physics.itmo.ru/>)

Chair of Program Committee of International Conference "METANANO'17" (Vladivostok, Russia 2017)
<https://metanano.ifmo.ru/2017/>

Member of Program Committee of International Conference "PLMCN-20" (Moscow, Russia 2019)
<https://events.mifp.eu/PLMCN-2019/>

Member of Program Committee of International Conference "METANANO'18" (Sochi, Russia 2018)
<https://metanano.ifmo.ru/2018/>

Organizer of Special Section as well as Member of Program Committee of International Conference
"METANANO'19" (St Petersburg, Russia 2019) <https://metanano.ifmo.ru/2019/>

Languages: English – fluent, Russian – native, Chinese – beginner.

MAJOR publications

(find more papers at <https://scholar.google.com/citations?user=9sE8LrMAAAAJ&hl=en> and <https://www.scopus.com/authid/detail.uri?authorId=57205955669>):

1. P. Tonkaev, I.S. Sinev, M.V. Rybin, S.V. Makarov, and Yuri Kivshar “[Multifunctional and Transformative Metaphotonics with Emerging Materials](#)” **Chemical Reviews** 122, 19, 15414 (2022) [IF= **72.087**]
2. D.A. Zuev, S.V. Makarov, V.A. Milichko, S.V. Starikov, I.S. Mukhin, 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** 28(16), 3087–3093 (2016) [Impact Factor= **32.086**]
3. V. A. Milichko, S.V. Makarov, A. V. Yulin, A.V. Vinogradov, A.A. Krasilin, E. Ushakova, and P.A. Belov, “[van der Waals Metal-Organic Framework as an Excitonic Material for Advanced Photonics](#)”. **Advanced Materials** 29(12), 1606034 (2017) [IF= **32.086**]
4. G Zograf, K Koshelev, A Zalogina, V Korolev, R Hollinger, DY Choi, M Zuerch, C Spielmann, B Luther-Davies, D Kartashov, SV Makarov, SS. Kruk, and Y Kivshar. “[High-Harmonic generation from resonant dielectric metasurfaces empowered by bound states in the continuum](#)” **ACS Photonics** 9(2), 567-574 (2022) .
5. G. Zograf, M. Petrov, S. Makarov, Y. Kivshar “[All-dielectric thermonanophotonics](#)” **Advances in Optics and Photonics** 13, 643 (2021) [IF= **20.107**]
6. Yali Sun, A. Larin, A. Mozharov, E. Ageev, O. Pashina, F. Komissarenko, I. Mukhin, M. Petrov, S. Makarov, P. Belov, D. Zuev “[All-optical generation of static electric field in a single metal-semiconductor nanoantenna](#)” **Light: Science & Applications** 12 (1), 237 (2023)
7. A.Berestennikov, P.Voroshilov, S.Makarov, Y.Kivshar “[Active meta-optics and nanophotonics with halide perovskites](#)” **Applied Physics Reviews** 6(3), p.031307 (2019) [IF= **21.43**] (*selected as 'Featured Article'*)
8. J. Ye, D. Zuev and S. Makarov «[Dewetting mechanisms and their exploitation for the large-scale fabrication of advanced nanophotonic systems](#)» **International Materials Reviews** 64(8), 439–477 (2019) [IF = **21.086**]
9. A. Marunchenko, M. Baranov, E.V. Ushakova, D. Ryabov, A. Pushkarev, D. Gets, A.G. Nasibulin, S. Makarov “[Single-Walled Carbon Nanotube Thin Film for Flexible and Highly Responsive Perovskite Photodetector](#)” **Advanced Functional Materials** 2109834 (2021) [IF = **18.808**]
10. M. A. Masharin, A. K. Samusev, A. A. Bogdanov, I. V. Iorsh, H. V. Demir, and S. V. Makarov. “[Room-temperature exceptional-point-driven polariton lasing from perovskite metasurface](#)” **Advanced Functional Materials** 33, 22, 2215007 (2023) [IF = **18.808**]
11. A. Furasova, P. Voroshilov, G. Baranov, P. Tonkaev, A. Nikolaeva, K. Voronin, L. Vesce, S. Makarov, Aldo Di Carlo “[Mie-resonant mesoporous electron transport layer for highly efficient perovskite solar cells](#)” **Nano Energy** 106484 (2021) [IF = **19.069**]
12. Masharin MA, Oskolkova T, Isik F, Volkan Demir H, Samusev AK, Makarov SV. Giant Ultrafast “[All-Optical Modulation Based on Exceptional Points in Exciton–Polariton Perovskite Metasurfaces](#)” **ACS Nano** 18, 4, 3447–3455 (2024) [IF = **19.069**]
13. D.I. Markina , S.S. Anoshkin, M.A. Masharin, S.A. Khubezhov, I. Tzibizov, D. Dolgintsev, I.N. Terterov, S.V. Makarov, A.P. Pushkarev. “[Perovskite Nanowire Laser for Hydrogen Chloride Gas Sensing](#)”. **ACS Nano** 17, 2, 1570 (2023) [IF= **18.027**]
14. A. Berestennikov, S. Kiriushchikina, A. Vakulenko, A.P. Pushkarev, A.B. Khanikaev, and S.V. Makarov, “[Perovskite microlaser integration with metasurface supporting topological waveguiding](#)” **ACS Nano** 17 (5), 4445-4452 (2023) [IF= **18.027**]

15. A. Zhizhchenko, S. Syubaev, A. Berestennikov, A.V. Yulin, A. Porfirev, A. Pushkarev, I. Shishkin, K. Golokhvast, A.A. Bogdanov, A.A. Zakhidov, A.A. Kuchmizhak, Y.S. Kivshar, S.V. Makarov “[Single-Mode Lasing from Imprinted Halide-Perovskite Microdisks](#)” **ACS Nano** 13(4), 4140-4147 (2019) [IF= **18.027**]
16. P. Franceschini, L. Carletti, A. Pushkarev, F. Preda, A. Perri, A. Tognazzi, A. Ronchi, G. Ferrini, S. Pagliara, F. Banfi, D. Polli, G. Cerullo, C. De Angelis, S. Makarov, C. Giannetti «[Tuning the Ultrafast Response of Fano Resonances in Halide Perovskite Nanoparticles](#)» **ACS Nano**, 4 (10), 13602-13610 (2020) [IF= **18.027**]
17. Fedorov, V.V., Bolshakov, A., Sergaeva, O., Neplokh, V., Markina, D., Bruyere, S., Saerens, G., Petrov, M.I., Grange, R., Timofeeva, M. and Makarov, S.V. “[Gallium Phosphide Nanowires in a Free-Standing, Flexible, and Semitransparent Membrane for Large-Scale Infrared-to-Visible Light Conversion](#)” **ACS Nano** 14(8), pp.10624-10632 (2020) [IF= **18.027**]
18. Trofimov P, Pushkarev AP, Sinev IS, Fedorov VV, Bruyère S, Bolshakov A, Mukhin IS, Makarov SV. “[Perovskite-Gallium Phosphide Platform for Reconfigurable Visible-Light Nanophotonic Chip](#)” **ACS Nano** 14, 7, 8126–8134 (2020) [IF= **18.027**]
19. Tiguntseva E, Koshelev K, Furasova A, Tonkaev P, Mikhailovskii V, Ushakova EV, Baranov DG, Shegai T, Zakhidov AA, Kivshar Y, Makarov SV. “[Room-Temperature Lasing from Mie-Resonant Non-Plasmonic Nanoparticles](#)” **ACS Nano** 14(7), 8149-8156 (2020) [IF= **18.027**]
20. Tonkaev P, Grechaninova E, Iorsh I, Montanarella F, Kivshar Y, Kovalenko MV, Makarov S. “[Multiscale Supercrystal Meta-atoms](#)”. **Nano Letters** 24, 9, 2758–2764 (2024) [IF = **11.189**]
21. G.Ermolaev, ..., Kostya S Novoselov, S.V. Makarov, V.S. Volkov “[Giant and Tunable Excitonic Optical Anisotropy in Single-Crystal Halide Perovskites](#)” **Nano Letters** 23 (7), 2570-2577 (2023) [IF = **11.189**]
22. Masharin M.A., Shahnazaryan V.A., Benimetskiy F.A., Krizhanovskii D.N., Shelykh I.A., Iorsh I.V., Makarov S.V. and Samusev A.K. “[Polaron-enhanced polariton nonlinearity in lead halide perovskites](#)” **Nano Letters**, 22(22), pp.9092-9099 (2022).[IF = **11.189**]
23. Y.Fan, P.Tonkaev, Y.Wang, Q.Song, J.Han, S.Makarov, Y.Kivshar, S. Xiao “Enhanced Multiphoton Processes in Perovskite Metasurfaces” **Nano Letters** 21, 17, 7191 (2021) [IF = **11.189**]
24. A. Tripathi, Ha-Reem Kim, P.Tonkaev, S.-J. Lee, S.Makarov, S.S. Kruk, M.Rybin, Hong-Gyu Park, Y.Kivshar “Lasing Action from Anapole Metasurfaces” **Nano Letters** 21, 6563 (2021) [IF = **11.189**]
25. Zograf GP, Ryabov D, Rutckaia V, Voroshilov P, Tonkaev P, Permyakov DV, Kivshar Y, Makarov SV. “[Stimulated Raman scattering from Mie-resonant subwavelength nanoparticles](#)”. **Nano Letters** 20, 8, 5786–5791 (2020). [IF = **11.189**]
26. S. V. Makarov, S. I. Kudryashov, I. Mukhin, A. Mozharov, V. Milichko, A. Krasnok and P. A. Belov, «[Tuning of magnetic optical response in a dielectric nanoparticle by ultrafast photoexcitation of dense electron-hole plasma](#)», **Nano Letters** 15, 6187–6192 (2015). [IF = **11.189**]
27. S.V. Makarov, MI Petrov, U Zywiets, V Milichko, D Zuev, N Lopanitsyna, et al. “[Efficient Second-Harmonic Generation in Nanocrystalline Silicon Nanoparticles](#)” **Nano Letters** 17(5), 3047-3053 (2017) [IF = **11.189**]
28. G.P. Zograf, M.I. Petrov, D.A. Zuev, P.A. Dmitriev, V.A. Milichko, S.V. Makarov, P.A. Belov “[Resonant Nonplasmonic Nanoparticles for Efficient Temperature-Feedback Optical Heating](#)” **Nano Letters** 17 (5), 2945-2952 (2017) [IF = **11.189**]
29. S.V. Makarov, IS Sinev, VA Milichko, et.al “[Nanoscale generation of white light for ultrabroadband nanospectroscopy](#)” **Nano Letters** 18 (1), 535-539 (2018). [IF = **11.189**] E Tiguntseva, GP Zograf, FE Komissarenko, DA Zuev, AA Zakhidov, S.V.Makarov, Y.Kivshar “[Light-Emitting Halide Perovskite Nanoantennas](#)” **Nano Letters** 18 (2), pp 1185–1190 (2018).[IF = **11.189**]

30. Alexey Yu. Zhizhchenko, Artem Cherepakhin, Mikhail Masharin, Anatoly Pushkarev, Sergei A. Kulinich, Aleksandr A. Kuchmizhak, [Sergey Makarov](#) "[Directional Lasing from Nanopatterned Halide Perovskite Nanowire](#)" **Nano Letters** 21(23), 10019–10025 (2021) [IF= **11.189**]
31. EY Tiguntseva, DG Baranov, AP Pushkarev, B Munkhbat, F Komissarenko, M. Franckevicius, A.A. Zakhidov, T. Shegai, Yu.S Kivshar, [S.V. Makarov](#) "[Tunable Hybrid Fano Resonances in Halide Perovskite Nanoparticles](#)" **Nano Letters** 18 (9), 5522-5529 (2018). [IF = **11.189**]
32. A.Y. Zhizhchenko, P. Tonkaev, D. Gets, A. Larin, D. Zuev, S. Starikov, E.V. Pustovalov, A.M. Zakharenko, S.A. Kulinich, S. Juodkakis, A.A.Kuchmizhak, and [S.V. Makarov](#) "[Light-emitting nanophotonic designs enabled by ultrafast laser processing of halide perovskites](#)" **Small** 2000410 (2020) [IF=**13.281**]
33. K.R. Safronov, A.A. Popkova, D.I. Markina, A.P. Pushkarev, [S.V. Makarov](#), V.O. Bessonov, and A.A. Fedyanin "Efficient emission outcoupling from a perovskite microlaser into highly directional and long-propagation-length Bloch surface waves" **Laser&Photonics Reviews** (2022) [IF= **13.138**]
34. [S.V. Makarov](#), A.S. Zalogina, M. Tajik, D.A. Zuev, M.V. Rybin, A.A. Kuchmizhak, S. Juodkakis, and Y. Kivshar "[Light-Induced Tuning and Reconfiguration of Nanophotonic Structures](#)" **Laser & Photonics Reviews** 11(5), 1700108 (2017) [IF= **13.138**] (*In top-20 most downloaded papers of the journal in 01/2017-12/2018*).
35. [S. V. Makarov](#), V. A. Milichko, I. S. Mukhin, et al. "[Controllable Femtosecond Laser-Induced Dewetting for Plasmonic Applications](#)" **Laser & Photonics Reviews** 10(1), 91-99 (2016) [IF= **13.138**]
36. D. G. Baranov, [S. V. Makarov](#), A. E. Krasnok, P. A. Belov, and A. Alù, "[Tuning of near-and far-field properties of all-dielectric dimer nanoantennas via ultrafast electron-hole plasma photoexcitation](#)" **Laser & Photonics Reviews**, 10(6), 1009-1015 (2016). [IF= **13.138**]
37. A. Y. Zhizhchenko, Artem Cherepakhin, Mikhail Masharin, Anatoly Pushkarev, S. A. Kulinich, A. P. Porfirev, A. A. Kuchmizhak, [Sergey Makarov](#) "Direct Imprinting of Laser Field on Halide Perovskite Single Crystal for Advanced Photonic Applications" **Laser & Photonics Reviews** , pp. 2100094 (2021) [DOI: 10.1002/lpor.202100094] [IF = **13.138**]
38. I.S. Sinev, A.A. Bogdanov, F.E. Komissarenko, K.S. Frizyuk, M.I. Petrov, I.S. Mukhin, [S.V. Makarov](#), A.K. Samusev, A.V. Lavrinenko, and I.V. Iorsh "[Chirality driven by magnetic dipole response for demultiplexing of surface waves](#)" **Laser & Photonics Reviews**, 11(5) 1700168 (2017) [IF= **13.138**]
39. VA Milichko, DA Zuev, DG Baranov, GP Zograf, K Volodina, AA Krasilin , [S.V. Makarov](#), P.A. Belov, "[Metal-Dielectric Nanocavity for Real-Time Tracing Molecular Events with Temperature Feedback](#)" **Laser & Photonics Reviews**, 12(1), 1700227 (2018) [IF= **13.138**]
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