

# Mikhail V Rybin

## List of Publications by Year in descending order

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Version: 2024-02-01

112  
papers

4,022  
citations

279487

23  
h-index

118652

62  
g-index

115  
all docs

115  
docs citations

115  
times ranked

3596  
citing authors

#	ARTICLE	IF	CITATIONS
1	Fano resonances in photonics. <i>Nature Photonics</i> , 2017, 11, 543-554.	15.6	1,240
2	High- $Q$ Supercavity Modes in Subwavelength Dielectric Resonators. <i>Physical Review Letters</i> , 2017, 119, 243901.	2.9	474
3	Bound states in the continuum and Fano resonances in the strong mode coupling regime. <i>Advanced Photonics</i> , 2019, 1, 1.	6.2	247
4	All-Dielectric Active Terahertz Photonics Driven by Bound States in the Continuum. <i>Advanced Materials</i> , 2019, 31, e1901921.	11.1	210
5	Fano Resonance between Mie and Bragg Scattering in Photonic Crystals. <i>Physical Review Letters</i> , 2009, 103, 023901.	2.9	187
6	Light-Induced Tuning and Reconfiguration of Nanophotonic Structures. <i>Laser and Photonics Reviews</i> , 2017, 11, 1700108.	4.4	158
7	Supercavity lasing. <i>Nature</i> , 2017, 541, 164-165.	13.7	130
8	Phase diagram for the transition from photonic crystals to dielectric metamaterials. <i>Nature Communications</i> , 2015, 6, 10102.	5.8	122
9	Extended Bound States in the Continuum with Symmetry-Broken Terahertz Dielectric Metasurfaces. <i>Advanced Optical Materials</i> , 2021, 9, 2002001.	3.6	99
10	Switching from Visibility to Invisibility via Fano Resonances: Theory and Experiment. <i>Scientific Reports</i> , 2015, 5, 8774.	1.6	98
11	Fano interference governs wave transport in disordered systems. <i>Nature Communications</i> , 2012, 3, 914.	5.8	89
12	Mie scattering as a cascade of Fano resonances. <i>Optics Express</i> , 2013, 21, 30107.	1.7	83
13	Fano resonances in antennas: General control over radiation patterns. <i>Physical Review B</i> , 2013, 88, .	1.1	54
14	Guided-Mode Resonances in All-Dielectric Terahertz Metasurfaces. <i>Advanced Optical Materials</i> , 2020, 8, 1900959.	3.6	43
15	Lasing Action from Anapole Metasurfaces. <i>Nano Letters</i> , 2021, 21, 6563-6568.	4.5	43
16	Purcell effect and Lamb shift as interference phenomena. <i>Scientific Reports</i> , 2016, 6, 20599.	1.6	38
17	Selective manipulation of stop-bands in multi-component photonic crystals: Opals as an example. <i>Physical Review B</i> , 2008, 77, .	1.1	35
18	Bragg scattering induces Fano resonance in photonic crystals. <i>Photonics and Nanostructures - Fundamentals and Applications</i> , 2010, 8, 86-93.	1.0	35

#	ARTICLE	IF	CITATIONS
19	High Miller-index photonic bands in synthetic opals. <i>Photonics and Nanostructures - Fundamentals and Applications</i> , 2007, 5, 119-124.	1.0	33
20	Complex interaction of polarized light with three-dimensional opal-based photonic crystals: Diffraction and transmission studies. <i>Photonics and Nanostructures - Fundamentals and Applications</i> , 2006, 4, 146-154.	1.0	32
21	Band Structure of Photonic Crystals Fabricated by Two-Photon Polymerization. <i>Crystals</i> , 2015, 5, 61-73.	1.0	29
22	Transition from two-dimensional photonic crystals to dielectric metasurfaces in the optical diffraction with a fine structure. <i>Scientific Reports</i> , 2016, 6, 30773.	1.6	28
23	Disorder-Immune Photonics Based on Mie-Resonant Dielectric Metamaterials. <i>Physical Review Letters</i> , 2019, 123, 163901.	2.9	27
24	Bound states in the continuum in periodic structures with structural disorder. <i>Nanophotonics</i> , 2021, 10, 4313-4321.	2.9	25
25	Multifunctional and Transformative Metaphotonics with Emerging Materials. <i>Chemical Reviews</i> , 2022, 122, 15414-15449.	23.0	23
26	Dimensionality effects on the optical diffraction from opal-based photonic structures. <i>Physical Review B</i> , 2013, 87, .	1.1	22
27	Inverted yablonovite fabricated by the direct laser writing method and its photonic structure. <i>JETP Letters</i> , 2012, 95, 457-461.	0.4	20
28	Combining isolated scatterers into a dimer by strong optical coupling. <i>Physical Review A</i> , 2019, 99, .	1.0	20
29	Experimental Observation of Intrinsic Light Localization in Photonic Icosahedral Quasicrystals. <i>Advanced Optical Materials</i> , 2020, 8, 2001170.	3.6	18
30	Two-dimensional light diffraction from thin opal films. <i>Physics of the Solid State</i> , 2011, 53, 1056-1061.	0.2	17
31	Multiple Bragg diffraction in low-contrast photonic crystals based on synthetic opals. <i>Physics of the Solid State</i> , 2011, 53, 1105-1113.	0.2	17
32	Multiple Bragg diffraction in opal-based photonic crystals: Spectral and spatial dispersion. <i>Physical Review B</i> , 2014, 89, .	1.1	17
33	Switchable invisibility of dielectric resonators. <i>Physical Review B</i> , 2017, 95, .	1.1	16
34	Optical properties of honeycomb photonic structures. <i>Physical Review A</i> , 2017, 95, .	1.0	15
35	Toward Silicon-Based Metamaterials. <i>ACS Photonics</i> , 2018, 5, 4751-4757.	3.2	15
36	Chipless wireless temperature sensor based on quasi-BIC resonance. <i>Applied Physics Letters</i> , 2021, 119, .	1.5	14

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37	Dielectric metamaterials with electric response. <i>Optics Letters</i> , 2018, 43, 5516.	1.7	13
38	Experimental study of the photonic band structure of synthetic opals at a low dielectric contrast. <i>Physics of the Solid State</i> , 2007, 49, 2280-2289.	0.2	12
39	Effect of photonic crystal stop-band on photoluminescence of $C_xH_x$ . <i>Physical Review B</i> , 2017, 95, .	1.1	12
40	Structural parameters of synthetic opals: Statistical analysis of electron microscopy images. <i>Physics of the Solid State</i> , 2008, 50, 1280-1286.	0.2	11
41	Anisotropy enables unusual waves. <i>Nature Photonics</i> , 2017, 11, 212-214.	15.6	11
42	Fabrication of submicron structures by three-dimensional laser lithography. <i>JETP Letters</i> , 2014, 99, 531-534.	0.4	10
43	Optical properties of woodpile photonic crystals produced by three-dimensional laser lithography. <i>Physics of the Solid State</i> , 2015, 57, 2494-2501.	0.2	10
44	All-Dielectric Nanostructures with a Thermoresponse Dynamic Polymer Shell. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 12737-12741.	7.2	10
45	Optically Reconfigurable Spherical $GeSbTe$ Nanoparticles with Reversible Switching. <i>Laser and Photonics Reviews</i> , 2022, 16, .	4.4	10
46	Invisibility of a finite dielectric cylinder under Fano resonance conditions. <i>Physics of the Solid State</i> , 2015, 57, 1991-1996.	0.2	9
47	Control over Light Emission in Low-Refractive-Index Artificial Materials Inspired by Reciprocal Design. <i>Advanced Optical Materials</i> , 2022, 10, 2100785.	3.6	9
48	Cascades of Fano resonances in Mie scattering. <i>Physics of the Solid State</i> , 2014, 56, 580-587.	0.2	8
49	Inverse dispersion method for calculation of complex photonic band diagram and $PT$ symmetry. <i>Physical Review B</i> , 2016, 93, .	1.1	8
50	Transition between a Photonic Crystal and a Metamaterial with Electric Response in Dielectric Structures. <i>JETP Letters</i> , 2019, 109, 340-344.	0.4	8
51	Light-Induced Color Switching of Single Metal-Organic Framework Nanocrystals. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 777-783.	2.1	8
52	High-Q states and Strong mode coupling in high-index dielectric resonators.. <i>Journal of Physics: Conference Series</i> , 2018, 1124, 051058.	0.3	7
53	Unconventional light scattering from glassy photonic films and metasurfaces. <i>Physical Review B</i> , 2019, 99, .	1.1	7
54	On dip broadening in transmission spectra of synthetic opals. <i>Physics of the Solid State</i> , 2008, 50, 436-445.	0.2	5

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55	Selective stop-band switching in two-dimensional multicomponent photonic crystals. Physics of the Solid State, 2009, 51, 518-524.	0.2	5
56	Selective control of light beams in diffraction experiments on synthetic opals. Physics of the Solid State, 2011, 53, 1415-1424.	0.2	5
57	Photonic properties of two-dimensional high-contrast periodic structures: Numerical calculations. Physics of the Solid State, 2014, 56, 588-593.	0.2	5
58	Boron-doped transparent conducting nanodiamond films. Technical Physics Letters, 2011, 37, 322-325.	0.2	4
59	Glassy nanostructures fabricated by the direct laser writing method. Physics of the Solid State, 2012, 54, 1975-1980.	0.2	4
60	Optical properties of 2D photonic structures fabricated by direct laser writing. SN Applied Sciences, 2019, 1, 1.	1.5	4
61	Small-angle X-ray diffraction investigation of twinned opal-like structures. Physics of the Solid State, 2012, 54, 2073-2082.	0.2	3
62	Fano resonances in all-dielectric metamaterials. , 2013, , .		3
63	Modeling of formation mechanism and optical properties of Si/Au core-shell nanoparticles. , 2016, , .		3
64	Optical coupling of overlapping nanopillars. Optics Letters, 2021, 46, 1221.	1.7	3
65	Fano resonances in high-index dielectric photonic structures. , 2014, , .		2
66	Two modes of laser lithography fabrication of three-dimensional submicrometer structures. Physics of the Solid State, 2014, 56, 2166-2172.	0.2	2
67	Light scattering at dielectric metasurfaces. JETP Letters, 2017, 105, 352-356.	0.4	2
68	Optical downfolding method for calculating quasinormal modes of complex nanoparticles. Physical Review A, 2021, 103, .	1.0	2
69	Disorder-Immune Photonics Based on Mie-Resonant Dielectric Metamaterials. , 2019, , .		2
70	Band gaps in multicomponent photonic crystals: splitting effects and the inverse design problem. Journal of the Optical Society of America B: Optical Physics, 2009, 26, 1767.	0.9	1
71	Peculiarities of the band structure of multi-component photonic crystals with different dimensions. Journal of Physics Condensed Matter, 2010, 22, 115401.	0.7	1
72	Multiscale modeling of all-dielectric metamaterials. , 2015, , .		1

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73	Transition from photonic crystals to dielectric metamaterials: A phase diagram and the order parameter. Proceedings of SPIE, 2016, , .	0.8	1
74	Optical laue diffraction on photonic structures designed by laser lithography. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2016, 120, 971-977.	0.2	1
75	Fabrication of spherical GeSbTe nanoparticles by laser printing technique. Journal of Physics: Conference Series, 2017, 917, 062017.	0.3	1
76	Mie bands in all-dielectric high-index metamaterials. , 2017, , .		1
77	Coupling regimes of high-index dimer. , 2018, , .		1
78	Evolution of Optical Diffraction Patterns on Disordered Woodpile Photonic Structures. Physics of the Solid State, 2018, 60, 1387-1393.	0.2	1
79	Transition from photonic crystals to dielectric metamaterials. Semiconductors and Semimetals, 2019, 100, 13-43.	0.4	1
80	Quasicrystal structure in metamaterial regime. AIP Conference Proceedings, 2020, , .	0.3	1
81	Optical Properties of Low-Contrast Opal-Based Photonic Crystals. Series in Optics and Optoelectronics, 2012, , 249-274.	0.0	1
82	Exceptional point and parity-time symmetry on dipole mie resonances in dimer. AIP Conference Proceedings, 2020, , .	0.3	1
83	Finding exceptional points in realistic systems using full-wave simulations. Journal of Physics: Conference Series, 2021, 2015, 012033.	0.3	1
84	Interlaced wire medium with quasicrystal lattice. Physical Review B, 2022, 105, .	1.1	1
85	<title>Bragg diffraction of light as a powerful tool in the study of photonic crystals</title>. , 2006, , .		0
86	Two-dimensional and 3D multi-component photonic crystals: theory and experiment. , 2008, , .		0
87	Disorder-induced Fano resonance in 1D photonic crystals. , 2011, , .		0
88	Optical diffraction from opal-based photonic structures: transition from 2D to 3D regimes. , 2012, , .		0
89	Inverted Yablonovite-like 3D photonic crystals fabricated by laser nanolithography. Proceedings of SPIE, 2012, , .	0.8	0
90	Fano resonance can make a homogeneous cylinder invisible: theoretical proposal and experimental demonstration. , 2016, , .		0

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91	Optical diffraction by two-dimensional photonic structures with hexagonal symmetry. Physics of the Solid State, 2016, 58, 1412-1419.	0.2	0
92	Quasi-crystalline and disordered photonic structures fabricated using direct laser writing. AIP Conference Proceedings, 2017, , .	0.3	0
93	Optical properties of GST nanoparticles fabricated by laser printing technique. AIP Conference Proceedings, 2017, , .	0.3	0
94	Silicon-based metamaterials: Phase transitions in periodic structures. , 2017, , .		0
95	Phase transitions in multiband periodic all-dielectric photonic structures. , 2017, , .		0
96	Optical diffraction from photonic-graphene metasurfaces. , 2017, , .		0
97	Invisibility cloaking of a high-index dielectric cylinder via Fano resonances. , 2017, , .		0
98	High-Q Supercavity States in High-Index Subwavelength All-Dielectric Resonators. , 2018, , .		0
99	Scattering of light from disordered photonic structures. Journal of Physics: Conference Series, 2018, 1092, 012139.	0.3	0
100	Strong Mode Coupling and High-Q Supercavity Modes in Subwavelength Dielectric Resonators. , 2018, , .		0
101	High-Q states in subwavelength dielectric resonators forming in strong mode coupling regime. , 2019, , .		0
102	Supercavity modes in silicon-based metasurfaces. AIP Conference Proceedings, 2020, , .	0.3	0
103	10.1007/s11451-008-3007-7. , 2010, 50, 436.		0
104	Multicomponent Photonic Crystals with Inhomogeneous Scatterers. Series in Optics and Optoelectronics, 2012, , 151-168.	0.0	0
105	High-Q resonances with low azimuthal indices in all-dielectric high-index nanoparticles. , 2017, , .		0
106	Active high-Q dielectric terahertz supercavities. , 2018, , .		0
107	Bound states in the continuum in dielectric waveguides of finite size. Journal of Physics: Conference Series, 2020, 1697, 012159.	0.3	0
108	Quadrupole-driven metamaterials. AIP Conference Proceedings, 2020, , .	0.3	0

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109	Optical properties of icosahedral quasicrystals. AIP Conference Proceedings, 2020, , .	0.3	0
110	Regimes of optical mode coupling: from core-shell single particle to dimer. Journal of Physics: Conference Series, 2020, 1461, 012029.	0.3	0
111	Transformation of guided modes into bound states in the continuum. Journal of Physics: Conference Series, 2021, 2015, 012078.	0.3	0
112	Temperature sensor tag based on supercavity mode of dielectric resonator. Journal of Physics: Conference Series, 2021, 2015, 012168.	0.3	0