Andrey B Evlyukhin

List of Publications by Citations

137 papers	5,636 citations	37 h-index	74 g-index
167 ext. papers	6,831 ext. citations	3.7 avg, IF	6.16 L-index

#	Paper	IF	Citations
137	Demonstration of magnetic dipole resonances of dielectric nanospheres in the visible region. *Nano Letters*, **2012**, 12, 3749-55	11.5	684
136	Optical response features of Si-nanoparticle arrays. *Physical Review B*, **2010**, 82,	3.3	568
135	Nonradiating anapole modes in dielectric nanoparticles. *Nature Communications*, **2015**, 6, 8069	17.4	457
134	Laser printing of silicon nanoparticles with resonant optical electric and magnetic responses. *Nature Communications*, **2014**, 5, 3402	17.4	345
133	Multipole light scattering by nonspherical nanoparticles in the discrete dipole approximation. *Physical Review B*, **2011**, 84,	3.3	236
132	All-dielectric nanophotonics: the quest for better materials and fabrication techniques. *Optica*, **2017**, 4, 814	8.6	223
131	Laser fabrication of large-scale nanoparticle arrays for sensing applications. *ACS Nano*, **2011**, 5, 4843-9	16.7	198
130	Optical theorem and multipole scattering of light by arbitrarily shaped nanoparticles. *Physical Review B*, **2016**, 94,	3.3	142
129	Resonant Lattice Kerker Effect in Metasurfaces With Electric and Magnetic Optical Responses. *Laser and Photonics Reviews*, **2017**, 11, 1700132	8.3	125
128	Electromagnetic Resonances of Silicon Nanoparticle Dimers in the Visible. *ACS Photonics*, **2015**, 2, 913-920	6.3	110
127	Multipole analysis of light scattering by arbitrary-shaped nanoparticles on a plane surface. *Journal of the Optical Society of America B: Optical Physics*, **2013**, 30, 2589	1.7	108
126	Collective resonances in metal nanoparticle arrays with dipole-quadrupole interactions. *Physical Review B*, **2012**, 85,	3.3	105
125	Multipolar response of nonspherical silicon nanoparticles in the visible and near-infrared spectral ranges. *Physical Review B*, **2017**, 96,	3.3	91
124	Substrate-Induced Resonant Magnetoelectric Effects for Dielectric Nanoparticles. *ACS Photonics*, **2015**, 2, 1423-1428	6.3	90
123	Transverse Scattering and Generalized Kerker Effects in All-Dielectric Mie-Resonant Metaoptics. *Physical Review Letters*, **2019**, 122, 193905	7.4	79
122	The High-Order Toroidal Moments and Anapole States in All-Dielectric Photonics. *Laser and Photonics Reviews*, **2019**, 13, 1800266	8.3	76
121	Detuned electrical dipoles for plasmonic sensing. *Nano Letters*, **2010**, 10, 4571-7	11.5	71

120	Focusing and directing of surface plasmon polaritons by curved chains of nanoparticles. *Optics Express*, **2007**, 15, 16667-80	3.3	70
119	Probing cytochrome c in living mitochondria with surface-enhanced Raman spectroscopy. *Scientific Reports*, **2015**, 5, 13793	4.9	69
118	Multipole analysis of dielectric metasurfaces composed of nonspherical nanoparticles and lattice invisibility effect. *Physical Review B*, **2019**, 99,	3.3	65
117	Surface plasmon polariton beam focusing with parabolic nanoparticle chains. *Optics Express*, **2007**, 15, 6576-82	3.3	65
116	Spatiotemporal characterization of SPP pulse propagation in two-dimensional plasmonic focusing devices. *Nano Letters*, **2013**, 13, 1053-8	11.5	63
115	Optical spectroscopy of single Si nanocylinders with magnetic and electric resonances. *Scientific Reports*, **2014**, 4, 4126	4.9	59
114	Resonant forward scattering of light by high-refractive-index dielectric nanoparticles with toroidal dipole contribution. *Optics Letters*, **2017**, 42, 835-838	3	58
113	Direct Amplitude-Phase Near-Field Observation of Higher-Order Anapole States. *Nano Letters*, **2017**, 17, 7152-7159	11.5	57
112	Generation and patterning of Si nanoparticles by femtosecond laser pulses. *Applied Physics A: Materials Science and Processing*, **2014**, 114, 45-50	2.6	57
111	Metasurfaces with Electric Quadrupole and Magnetic Dipole Resonant Coupling. *ACS Photonics*, **2018**, 5, 2022-2033	6.3	55
110	Optical transparency by detuned electrical dipoles. *New Journal of Physics*, **2011**, 13, 023034	2.9	55
109	Point-dipole approximation for surface plasmon polariton scattering: Implications and limitations. *Physical Review B*, **2005**, 71,	3.3	51
108	Analytical model of resonant electromagnetic dipole-quadrupole coupling in nanoparticle arrays. *Physical Review B*, **2019**, 99,	3.3	46
107	Laser-induced transfer of metallic nanodroplets for plasmonics and metamaterial applications. *Journal of the Optical Society of America B: Optical Physics*, **2009**, 26, B130	1.7	43
106	Surface plasmon polariton scattering by finite-size nanoparticles. *Physical Review B*, **2007**, 76,	3.3	43
105	Resonant unidirectional and elastic scattering of surface plasmon polaritons by high refractive index dielectric nanoparticles. *Physical Review B*, **2015**, 92,	3.3	42
104	Femtosecond Laser Printing of Single Ge and SiGe Nanoparticles with Electric and Magnetic Optical Resonances. *ACS Photonics*, **2018**, 5, 977-983	6.3	40
103	Surface plasmon polariton scattering by small ellipsoid particles. *Surface Science*, **2005**, 590, 173-180	1.8	39

102	Splitting of a surface plasmon polariton beam by chains of nanoparticles. *Applied Physics B: Lasers and Optics*, **2006**, 84, 29-34	1.9	38
101	Enhanced absorption in all-dielectric metasurfaces due to magnetic dipole excitation. *Scientific Reports*, **2019**, 9, 3438	4.9	37
100	The interplay between localized and propagating plasmonic excitations tracked in space and time. *Nano Letters*, **2014**, 14, 2431-5	11.5	37
99	Broadband forward scattering from dielectric cubic nanoantenna in lossless media. *Optics Express*, **2019**, 27, 10924-10935	3.3	37
98	Synthesis of periodic plasmonic microstructures with copper nanoparticles in silica glass by low-energy ion implantation. *Applied Physics A: Materials Science and Processing*, **2013**, 111, 261-264	2.6	35
97	Refracting surface plasmon polaritons with nanoparticle arrays. *Optics Express*, **2008**, 16, 3924-30	3.3	35
96	Plasmonic metasurfaces for waveguiding and field enhancement. *Laser and Photonics Reviews*, **2009** , 3, 575-590	8.3	34
95	Giant magnetoelectric field separation via anapole-type states in high-index dielectric structures. *Physical Review B*, **2018**, 98,	3.3	33
94	Highly Stable Monocrystalline Silver Clusters for Plasmonic Applications. *Langmuir*, **2017**, 33, 6062-6070	4	32
93	Multipole decompositions for directional light scattering. *Physical Review B*, **2019**, 100,	3.3	32
92	Surface plasmon polariton guiding by chains of nanoparticles. *Laser Physics Letters*, **2006**, 3, 396-400	1.5	31
91	Magnetic field concentration with coaxial silicon nanocylinders in the optical spectral range. *Journal of the Optical Society of America B: Optical Physics*, **2017**, 34, D36	1.7	26
90	The Synthesis of Hybrid Gold-Silicon Nano Particles in a Liquid. *Scientific Reports*, **2017**, 7, 10284	4.9	25
89	Optical properties of spherical gold mesoparticles. *Applied Physics B: Lasers and Optics*, **2012**, 106, 841-848	1.9	24
88	Laser-ablative engineering of phase singularities in plasmonic metamaterial arrays for biosensing applications. *Applied Physics Letters*, **2014**, 104, 071101	3.4	23
87	Mode-selective excitation of laser-written dielectric-loaded surface plasmon polariton waveguides. *Journal of the Optical Society of America B: Optical Physics*, **2009**, 26, B55	1.7	22
86	Magnetic Octupole Response of Dielectric Quadrumers. *Laser and Photonics Reviews*, **2020**, 14, 1900331	8.3	21
85	Multipole lattice effects in high refractive index metasurfaces. *Journal of Applied Physics*, **2021**, 129, 040902	2.2	21

84	Resonant suppression of light transmission in high-refractive-index nanoparticle metasurfaces. *Optics Letters*, **2018**, 43, 5186-5189	3	18
83	Growth of Silver Nanoclusters on Monolayer Nanoparticulate Titanium-oxo-alkoxy Coatings. *Journal of Physical Chemistry C*, **2012**, 116, 17239-17247	3.8	17
82	Interplay and coupling of electric and magnetic multipole resonances in plasmonic nanoparticle lattices. *MRS Communications*, **2018**, 8, 712-717	2.7	16
81	Bianisotropy for light trapping in all-dielectric metasurfaces. *Physical Review B*, **2020**, 101,	3.3	15
80	Bandgap-confined large-mode waveguides for surface plasmon-polaritons. *Journal of the Optical Society of America B: Optical Physics*, **2013**, 30, 2898	1.7	15
79	Asymmetric and symmetric local surface-plasmon-polariton excitation on chains of nanoparticles. *Optics Letters*, **2009**, 34, 2237-9	3	15
78	Direct laser-writing of dielectric-loaded surface plasmon polariton waveguides for the visible and near infrared. *Applied Physics A: Materials Science and Processing*, **2010**, 100, 347-352	2.6	15
77	Engineering Nanoparticles with Pure High-Order Multipole Scattering. *ACS Photonics*, **2020**, 7, 1067-1075	6.3	14
76	Electromagnetic properties of the Great Pyramid: First multipole resonances and energy concentration. *Journal of Applied Physics*, **2018**, 124, 034903	2.5	13
75	Polarization-dependent asymmetric light scattering by silicon nanopyramids and their multipoles resonances. *Journal of Applied Physics*, **2019**, 125, 173108	2.5	12
74	Influence of metal doping on optical properties of Si nanoparticles. *Optics Communications*, **2014**, 316, 56-60	2	12
73	Applicability conditions for the dipole approximation in the problems of scattering of surface plasmon polaritons. *JETP Letters*, **2005**, 81, 218-221	1.2	12
72	Core-shell particles as efficient broadband absorbers in infrared optical range. *Optics Express*, **2019**, 27, 17474-17481	3.3	12
71	Theory, Observation, and Ultrafast Response of the Hybrid Anapole Regime in Light Scattering. *Laser and Photonics Reviews*,2100114	8.3	12
70	Nano-Antennas Based on Silicon-Gold Nanostructures. *Scientific Reports*, **2019**, 9, 338	4.9	11
69	Nonlinear microscopy of localized field enhancements in fractal shaped periodic metal nanostructures. *Journal of the Optical Society of America B: Optical Physics*, **2008**, 25, 1585	1.7	11
68	Phase-Resolved Observation of the Gouy Phase Shift of Surface Plasmon Polaritons. *ACS Photonics*, **2017**, 4, 905-908	6.3	10
67	Antitoroidic and Toroidic Orders in All-Dielectric Metasurfaces for Optical Near-Field Manipulation. *ACS Applied Nano Materials*, **2020**, 3, 11315-11325	5.6	10

66	Anapole Meta-Atoms: Nonradiating Electric and Magnetic Sources. *Physical Review Letters*, **2021**, 127, 096804	7.4	10
65	Fractal Shaped Periodic Metal Nanostructures Atop Dielectric-Metal Substrates for SERS Applications. *ACS Photonics*, **2020**, 7, 1708-1715	6.3	9
64	Homogeneous enhancement of near-fields in all-dielectric metasurfaces with cluster-based unit cells. *Optics Letters*, **2020**, 45, 1527-1530	3	9
63	Progressive Self-Boosting Anapole-Enhanced Deep-Ultraviolet Third Harmonic During Few-Cycle Laser Radiation. *ACS Photonics*, **2020**, 7, 1655-1661	6.3	8
62	Seeing the Unseen: Experimental Observation of Magnetic Anapole State Inside a High-Index Dielectric Particle. *Annalen Der Physik*, **2020**, 532, 2000293	2.6	8
61	Photonic bandgap plasmonic waveguides. *Optics Letters*, **2011**, 36, 2468-70	3	7
60	Interband and impurity breakdown in a semiconductor with an impurity band in a high electric field. *Semiconductor Science and Technology*, **1994**, 9, 2056-2066	1.8	7
59	Giant Photogalvanic Effect in Noncentrosymmetric Plasmonic Nanoparticles. *Physical Review X*, **2014**, 4,	9.1	6
58	Magnetic hot-spots in hollow silicon cylinders. *Journal of Physics: Conference Series*, **2016**, 741, 012156	0.3	6
57	All-Dielectric Nanophotonics: The High-Order Toroidal Moments and Anapole States in All-Dielectric Photonics (Laser Photonics Rev. 13(5)/2019). *Laser and Photonics Reviews*, **2019**, 13, 1970025	8.3	5
56	Revealing Low-Radiative Modes of Nanoresonators with Internal Raman Scattering. *JETP Letters*, **2019**, 110, 25-30	1.2	5
55	Laser-induced growth and self-organization of silver nanoparticles in colloidal polymers. *Laser Physics*, **2014**, 24, 126001	1.2	5
54	Toroidic and antitoroidic orders in hexagonal arrays of dielectric trimers: Magnetic group approach. *Physical Review B*, **2021**, 103,	3.3	5
53	Ultrafast surface plasmon-polariton interference and switching in multiple crossing dielectric waveguides. *Applied Physics B: Lasers and Optics*, **2016**, 122, 1	1.9	5
52	Polarization-independent anapole response of a trimer-based dielectric metasurface. *Nanophotonics*, **2021**,	6.3	5
51	Nonlinear Exciton-Mie Coupling in Transition Metal Dichalcogenide Nanoresonators. *Laser and Photonics Reviews*,2100604	8.3	5
50	Efficiency of surface-plasmon-polariton focusing by curved chains of nanoparticles. *Journal of the Optical Society of America B: Optical Physics*, **2008**, 25, 1011	1.7	4
49	Lightweight metasurface mirror of silicon nanospheres [Invited]. *Optical Materials Express*, **2020**, 10, 2706	2.6	4

48	Nonradiating sources for efficient wireless power transfer. *Nanophotonics*, **2021**, 10, 4399-4408	6.3	4
47	Plasmonic anapole states of active metamolecules. *Photonics Research*, **2021**, 9, 822	6	4
46	Destructive interference between electric and toroidal dipole moments in TiO2 cylinders and frustums with coaxial voids. *Journal of Physics: Conference Series*, **2017**, 929, 012065	0.3	3
45	The formation of periodic diffractive plasmonic nanostructures with implanted copper nanoparticles by local ion etching of silica glass. *Technical Physics Letters*, **2013**, 39, 591-593	0.7	3
44	Polarization control of colors in resonant evanescent field scattering by silicon nanodisks [Invited]. *Optical Materials Express*, **2019**, 9, 151	2.6	3
43	Experimental Demonstration of Surface Plasmon Polaritons Reflection and Transmission Effects. *Sensors*, **2019**, 19,	3.8	3
42	Multifaceted anapole: from physics to applications [Invited]. *Optical Materials Express*, **2022**, 12, 1817	2.6	3
41	Polarity of the Fano Resonance in the Near-Field Magnetic-Dipole Response of a Dielectric Particle Near a Conductive Surface. *Laser and Photonics Reviews*, **2018**, 12, 1800037	8.3	2
40	Toroidal dipole associated resonant forward scattering of light by silicon nanoparticles **2017**,		2
39	Holographic evanescent-wave focusing with nanoparticle arrays. *Optics Express*, **2008**, 16, 17429-40	3.3	2
38	Focusing and manipulation of surface plasmon polaritons by laser fabricated dielectric structures **2007**,		2
37	Scattering of surface plasmon polaritons by a nanoparticle with the inclusion of the magnetic dipole contribution. *JETP Letters*, **2006**, 83, 558-562	1.2	2
36	How mesoscopic objects localized in a layered structure affect the light-field distribution in near-field surface microscopy. *Journal of Optical Technology (A Translation of Opticheskii Zhurnal)*, **2004**, 71, 384	0.9	2
35	Cross sections for surface plasmon polariton scattering from a nanoparticle in the dipole approximation. *Technical Physics Letters*, **2005**, 31, 817	0.7	2
34	Nonradiating anapole modes of dielectric particles in terahertz range **2016**,		2
33	Highly stable silver nanoparticles for SERS applications. *Journal of Physics: Conference Series*, **2018**, 1092, 012098	0.3	2
32	Controllable Excitation of Surface Plasmon Polaritons in Graphene-Based Semiconductor Quantum Dot Waveguides. *Annalen Der Physik*,2100139	2.6	2
31	Multipole optimization of light focusing by silicon nanosphere structures. *Journal of the Optical Society of America B: Optical Physics*, **2021**, 38, 3009	1.7	2

30	SERS uncovers the link between conformation of cytochrome c heme and mitochondrial membrane potential		2
29	Omnidirectional Surface Plasmon Polaritons Concentration in 3D Metallic Structures. *Plasmonics*, **2019**, 14, 1547-1554	2.4	1
28	Fabrication of sub-150 nm structures by two-photon polymerization for plasmon excitation **2017**,		1
27	Theoretical modelling and leakage radiation microscopy of surface plasmon polariton excitation and scattering on laser fabricated surface structures **2010**,		1
26	Characterization of localized field enhancements in laser fabricated gold needle nanostructures. *Journal of the Optical Society of America B: Optical Physics*, **2012**, 29, 185	1.7	1
25	Electron impact ionization in p-type degenerate narrow-gap semiconductors with a Kane band dispersion law. *Semiconductor Science and Technology*, **1997**, 12, 29-34	1.8	1
24	Two-photon polymerization and applications in plasmonics **2007**, 6581, 174		1
23	Optical multipole resonances of non-spherical silicon nanoparticles and the influence of illumination direction **2018**,		1
22	Polarization Switching Between Electric and Magnetic Quasi-Trapped Modes in Bianisotropic All-Dielectric Metasurfaces. *Laser and Photonics Reviews*,2100206	8.3	1
21	Laser Printing of Nanoparticles **2018**, 251-268		0
20	Nontrivial optical response of silicon triangular prisms. *Journal of Physics: Conference Series*, **2021**, 2015, 012111	0.3	0
19	Non-Huygens invisible metasurfaces. *Journal of Physics: Conference Series*, **2020**, 1461, 012156	0.3	
18	Evolution of multipole moments in silicon nanocylinder while varying the refractive index of surrounding medium. *Journal of Physics: Conference Series*, **2020**, 1461, 012176	0.3	
17	Evolutionary and genetic algorithms for design of metadevices working on electric dipole resonance. *Journal of Physics: Conference Series*, **2020**, 1461, 012011	0.3	
16	Simultaneous suppression of forward and backward light scattering by high-index nanoparticles based on Kerker-like effects. *Journal of Physics: Conference Series*, **2020**, 1461, 012158	0.3	
15	Multipole analysis of periodic array of rotated silicon cubes. *Journal of Physics: Conference Series*, **2020**, 1461, 012177	0.3	
14	Influence of Fabrication Methods of Gold and Silver Layers on Surface Plasmon Polaritons Propagation Length. *Plasmonics*, **2018**, 13, 1359-1366	2.4	
13	Laser Generation and Printing of Nanoparticles. *Springer Series in Materials Science*, **2014**, 103-123	0.9	

12	Threshold and probability of impact ionization by electrons in narrow-gap p-type semiconductors with highly degenerate holes. *Physics of the Solid State*, **1997**, 39, 240-244	0.8
11	Scattering of a surface plasmon polariton beam by chains of dipole nanoparticles. *Applied Physics B: Lasers and Optics*, **2008**, 93, 203-207	1.9
10	Plasmonic micro-optical components utilizing nanoparticle arrays: Theoretical approach. *Optical Memory and Neural Networks (Information Optics)*, **2008**, 17, 249-253	0.7
9	Self-consistent Quasi-electrostatic Approach in Near-field Optical Microscopy of Quantum Dots Ensemble Embedded in Layer Structure. *Microscopy and Microanalysis*, **2003**, 9, 172-173	0.5
8	Effect of mesoscopic semiconductor perturbations on the electromagnetic field distribution in near-field optical microscopy. *Technical Physics Letters*, **2002**, 28, 263-265	0.7
7	Influence of interatomic correlation effects on short-range order in hexagonal close-packed polycrystalline alloys. *Physics of the Solid State*, **1999**, 41, 1933-1939	0.8
6	Multipole Born series approach to light scattering by Mie-resonant nanoparticle structures. *Journal of Optics (United Kingdom)*, **2022**, 24, 035603	1.7
5	Electron Interband Breakdown in a Kane Semiconductor with a Degenerate Hole Distribution. *Springer Proceedings in Physics*, **2008**, 53-56	0.2
4	Application of Born series for modeling of Mie-resonant nanostructures. *Journal of Physics: Conference Series*, **2021**, 2015, 012161	0.3
3	Light focusing by silicon nanosphere structures under conditions of magnetic dipole and quadrupole resonances. *Journal of Physics: Conference Series*, **2021**, 2015, 012160	0.3
2	Optical response of semiconductor nanostructure with free charge carriers in scanning near-field optical microscope **2018**, 591-596	
1	Near-IR resonant response of Ge microparticles fabricated by femtosecond laser printing. *Journal of Physics: Conference Series*, **2018**, 1092, 012175	0.3