Andrey B Evlyukhin

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Demonstration of Magnetic Dipole Resonances of Dielectric Nanospheres in the Visible Region. Nano Letters, 2012, 12, 3749-3755.	4.5	857
2	Nonradiating anapole modes in dielectric nanoparticles. Nature Communications, 2015, 6, 8069.	5.8	702
3	Optical response features of Si-nanoparticle arrays. Physical Review B, 2010, 82, .	1.1	690
4	Laser printing of silicon nanoparticles with resonant optical electric and magnetic responses. Nature Communications, 2014, 5, 3402.	5.8	430
5	All-dielectric nanophotonics: the quest for better materials and fabrication techniques. Optica, 2017, 4, 814.	4.8	328
6	Multipole light scattering by nonspherical nanoparticles in the discrete dipole approximation. Physical Review B, 2011, 84, .	1.1	297
7	Laser Fabrication of Large-Scale Nanoparticle Arrays for Sensing Applications. ACS Nano, 2011, 5, 4843-4849.	7.3	224
8	Optical theorem and multipole scattering of light by arbitrarily shaped nanoparticles. Physical Review B, 2016, 94, .	1.1	223
9	Resonant Lattice Kerker Effect in Metasurfaces With Electric and Magnetic Optical Responses. Laser and Photonics Reviews, 2017, 11, 1700132.	4.4	190
10	Transverse Scattering and Generalized Kerker Effects in All-Dielectric Mie-Resonant Metaoptics. Physical Review Letters, 2019, 122, 193905.	2.9	152
11	The Highâ€Order Toroidal Moments and Anapole States in Allâ€Dielectric Photonics. Laser and Photonics Reviews, 2019, 13, 1800266.	4.4	144
12	Electromagnetic Resonances of Silicon Nanoparticle Dimers in the Visible. ACS Photonics, 2015, 2, 913-920.	3.2	136
13	Collective resonances in metal nanoparticle arrays with dipole-quadrupole interactions. Physical Review B, 2012, 85, .	1.1	135
14	Multipolar response of nonspherical silicon nanoparticles in the visible and near-infrared spectral ranges. Physical Review B, 2017, 96, .	1.1	134
15	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.	0.9	133
16	Multipole analysis of dielectric metasurfaces composed of nonspherical nanoparticles and lattice invisibility effect. Physical Review B, 2019, 99, .	1.1	126
17	Substrate-Induced Resonant Magnetoelectric Effects for Dielectric Nanoparticles. ACS Photonics, 2015, 2, 1423-1428.	3.2	119
18	Probing cytochrome c in living mitochondria with surface-enhanced Raman spectroscopy. Scientific Reports, 2015, 5, 13793.	1.6	87

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19	Detuned Electrical Dipoles for Plasmonic Sensing. Nano Letters, 2010, 10, 4571-4577.	4.5	86
20	Metasurfaces with Electric Quadrupole and Magnetic Dipole Resonant Coupling. ACS Photonics, 2018, 5, 2022-2033.	3.2	81
21	Direct Amplitude-Phase Near-Field Observation of Higher-Order Anapole States. Nano Letters, 2017, 17, 7152-7159.	4.5	79
22	Focusing and directing of surface plasmon polaritons by curved chains of nanoparticles. Optics Express, 2007, 15, 16667.	1.7	77
23	Resonant forward scattering of light by high-refractive-index dielectric nanoparticles with toroidal dipole contribution. Optics Letters, 2017, 42, 835.	1.7	77
24	Multipole decompositions for directional light scattering. Physical Review B, 2019, 100, .	1.1	77
25	Spatiotemporal Characterization of SPP Pulse Propagation in Two-Dimensional Plasmonic Focusing Devices. Nano Letters, 2013, 13, 1053-1058.	4.5	76
26	Surface plasmon polariton beam focusing with parabolic nanoparticle chains. Optics Express, 2007, 15, 6576.	1.7	73
27	Generation and patterning of Si nanoparticles by femtosecond laser pulses. Applied Physics A: Materials Science and Processing, 2014, 114, 45-50.	1.1	66
28	Optical spectroscopy of single Si nanocylinders with magnetic and electric resonances. Scientific Reports, 2014, 4, 4126.	1.6	66
29	Analytical model of resonant electromagnetic dipole-quadrupole coupling in nanoparticle arrays. Physical Review B, 2019, 99, .	1.1	66
30	Femtosecond Laser Printing of Single Ge and SiGe Nanoparticles with Electric and Magnetic Optical Resonances. ACS Photonics, 2018, 5, 977-983.	3.2	62
31	Point-dipole approximation for surface plasmon polariton scattering: Implications and limitations. Physical Review B, 2005, 71, .	1.1	58
32	Optical transparency by detuned electrical dipoles. New Journal of Physics, 2011, 13, 023034.	1.2	58
33	Resonant unidirectional and elastic scattering of surface plasmon polaritons by high refractive index dielectric nanoparticles. Physical Review B, 2015, 92, .	1.1	57
34	Multipole lattice effects in high refractive index metasurfaces. Journal of Applied Physics, 2021, 129, .	1.1	56
35	Broadband forward scattering from dielectric cubic nanoantenna in lossless media. Optics Express, 2019, 27, 10924.	1.7	54
36	Enhanced absorption in all-dielectric metasurfaces due to magnetic dipole excitation. Scientific Reports, 2019, 9, 3438.	1.6	51

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37	Magnetic Octupole Response of Dielectric Quadrumers. Laser and Photonics Reviews, 2020, 14, 1900331.	4.4	51
38	Laser-induced transfer of metallic nanodroplets for plasmonics and metamaterial applications. Journal of the Optical Society of America B: Optical Physics, 2009, 26, B130.	0.9	49
39	Giant magnetoelectric field separation via anapole-type states in high-index dielectric structures. Physical Review B, 2018, 98, .	1.1	49
40	Surface plasmon polariton scattering by finite-size nanoparticles. Physical Review B, 2007, 76, .	1.1	48
41	Theory, Observation, and Ultrafast Response of the Hybrid Anapole Regime in Light Scattering. Laser and Photonics Reviews, 2021, 15, 2100114.	4.4	44
42	Plasmonic metasurfaces for waveguiding and field enhancement. Laser and Photonics Reviews, 2009, 3, 575-590.	4.4	43
43	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.	0.9	43
44	Surface plasmon polariton scattering by small ellipsoid particles. Surface Science, 2005, 590, 173-180.	0.8	42
45	Splitting of a surface plasmon polariton beam by chains of nanoparticles. Applied Physics B: Lasers and Optics, 2006, 84, 29-34.	1.1	42
46	Bianisotropy for light trapping in all-dielectric metasurfaces. Physical Review B, 2020, 101, .	1.1	42
47	Surface plasmon polariton guiding by chains of nanoparticles. Laser Physics Letters, 2006, 3, 396-400.	0.6	41
48	The Interplay between Localized and Propagating Plasmonic Excitations Tracked in Space and Time. Nano Letters, 2014, 14, 2431-2435.	4.5	41
49	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.	1.1	40
50	Highly Stable Monocrystalline Silver Clusters for Plasmonic Applications. Langmuir, 2017, 33, 6062-6070.	1.6	40
51	Interplay and coupling of electric and magnetic multipole resonances in plasmonic nanoparticle lattices. MRS Communications, 2018, 8, 712-717.	0.8	39
52	Anapole Meta-Atoms: Nonradiating Electric and Magnetic Sources. Physical Review Letters, 2021, 127, 096804.	2.9	38
53	Refracting surface plasmon polaritons with nanoparticle arrays. Optics Express, 2008, 16, 3924.	1.7	36
54	The Synthesis of Hybrid Gold-Silicon Nano Particles in a Liquid. Scientific Reports, 2017, 7, 10284.	1.6	32

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55	Laser-ablative engineering of phase singularities in plasmonic metamaterial arrays for biosensing applications. Applied Physics Letters, 2014, 104, .	1.5	30
56	Nonlinear Excitonâ€Mie Coupling in Transition Metal Dichalcogenide Nanoresonators. Laser and Photonics Reviews, 2022, 16, .	4.4	29
57	Optical properties of spherical gold mesoparticles. Applied Physics B: Lasers and Optics, 2012, 106, 841-848.	1.1	28
58	Nano-Antennas Based on Silicon-Gold Nanostructures. Scientific Reports, 2019, 9, 338.	1.6	28
59	Polarization-dependent asymmetric light scattering by silicon nanopyramids and their multipoles resonances. Journal of Applied Physics, 2019, 125, .	1.1	28
60	Electromagnetic properties of the Great Pyramid: First multipole resonances and energy concentration. Journal of Applied Physics, 2018, 124, .	1.1	25
61	Fractal Shaped Periodic Metal Nanostructures Atop Dielectric-Metal Substrates for SERS Applications. ACS Photonics, 2020, 7, 1708-1715.	3.2	25
62	Resonant suppression of light transmission in high-refractive-index nanoparticle metasurfaces. Optics Letters, 2018, 43, 5186.	1.7	25
63	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.	0.9	24
64	Engineering Nanoparticles with Pure High-Order Multipole Scattering. ACS Photonics, 2020, 7, 1067-1075.	3.2	23
65	Antitoroidic and Toroidic Orders in All-Dielectric Metasurfaces for Optical Near-Field Manipulation. ACS Applied Nano Materials, 2020, 3, 11315-11325.	2.4	21
66	Growth of Silver Nanoclusters on Monolayer Nanoparticulate Titanium-oxo-alkoxy Coatings. Journal of Physical Chemistry C, 2012, 116, 17239-17247.	1.5	20
67	Nonradiating sources for efficient wireless power transfer. Nanophotonics, 2021, 10, 4399-4408.	2.9	19
68	Asymmetric and symmetric local surface-plasmon-polariton excitation on chains of nanoparticles. Optics Letters, 2009, 34, 2237.	1.7	18
69	Seeing the Unseen: Experimental Observation of Magnetic Anapole State Inside a Highâ€Index Dielectric Particle. Annalen Der Physik, 2020, 532, 2000293.	0.9	18
70	Polarization-independent anapole response of a trimer-based dielectric metasurface. Nanophotonics, 2021, 10, 4373-4383.	2.9	18
71	Polarization Switching Between Electric and Magnetic Quasiâ€Trapped Modes in Bianisotropic Allâ€Dielectric Metasurfaces. Laser and Photonics Reviews, 2021, 15,	4.4	18
72	Lightweight metasurface mirror of silicon nanospheres [Invited]. Optical Materials Express, 2020, 10, 2706.	1.6	17

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73	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.	1.1	16
74	Bandgap-confined large-mode waveguides for surface plasmon-polaritons. Journal of the Optical Society of America B: Optical Physics, 2013, 30, 2898.	0.9	15
75	Homogeneous enhancement of near-fields in all-dielectric metasurfaces with cluster-based unit cells. Optics Letters, 2020, 45, 1527.	1.7	15
76	Influence of metal doping on optical properties of Si nanoparticles. Optics Communications, 2014, 316, 56-60.	1.0	14
77	Giant Photogalvanic Effect in Noncentrosymmetric Plasmonic Nanoparticles. Physical Review X, 2014, 4, .	2.8	14
78	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.	0.9	13
79	Core-shell particles as efficient broadband absorbers in infrared optical range. Optics Express, 2019, 27, 17474.	1.7	13
80	Multifaceted anapole: from physics to applications [Invited]. Optical Materials Express, 2022, 12, 1817.	1.6	13
81	Applicability conditions for the dipole approximation in the problems of scattering of surface plasmon polaritons. JETP Letters, 2005, 81, 218-221.	0.4	12
82	Plasmonic anapole states of active metamolecules. Photonics Research, 2021, 9, 822.	3.4	12
83	Quasitrapped modes in metasurfaces of anisotropic <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>MoS</mml:mi><mml:mn>2nanoparticles for absorption and polarization control in the telecom wavelength range. Physical Review B, 2022, 106</mml:mn></mml:msub></mml:math 	nl:mn> <td>ml:msub></td>	ml:msub>
84	Experimental Demonstration of Surface Plasmon Polaritons Reflection and Transmission Effects. Sensors, 2019, 19, 4633.	2.1	11
85	Toroidic and antitoroidic orders in hexagonal arrays of dielectric trimers: Magnetic group approach. Physical Review B, 2021, 103, .	1.1	11
86	Phase-Resolved Observation of the Gouy Phase Shift of Surface Plasmon Polaritons. ACS Photonics, 2017, 4, 905-908.	3.2	10
87	Allâ€Dielectric Nanophotonics: The Highâ€Order Toroidal Moments and Anapole States in Allâ€Dielectric Photonics (Laser Photonics Rev. 13(5)/2019). Laser and Photonics Reviews, 2019, 13, 1970025.	4.4	10
88	Progressive Self-Boosting Anapole-Enhanced Deep-Ultraviolet Third Harmonic During Few-Cycle Laser Radiation. ACS Photonics, 2020, 7, 1655-1661.	3.2	10
89	Interband and impurity breakdown in a semiconductor with an impurity band in a high electric field. Semiconductor Science and Technology, 1994, 9, 2056-2066.	1.0	7
90	Photonic bandgap plasmonic waveguides. Optics Letters, 2011, 36, 2468.	1.7	7

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91	Magnetic hot-spots in hollow silicon cylinders. Journal of Physics: Conference Series, 2016, 741, 012156.	0.3	7
92	Efficiency of surface-plasmon-polariton focusing by curved chains of nanoparticles. Journal of the Optical Society of America B: Optical Physics, 2008, 25, 1011.	0.9	6
93	Laser-induced growth and self-organization of silver nanoparticles in colloidal polymers. Laser Physics, 2014, 24, 126001.	0.6	6
94	Omnidirectional Surface Plasmon Polaritons Concentration in 3D Metallic Structures. Plasmonics, 2019, 14, 1547-1554.	1.8	6
95	Ultrafast surface plasmon-polariton interference and switching in multiple crossing dielectric waveguides. Applied Physics B: Lasers and Optics, 2016, 122, 1.	1.1	5
96	Destructive interference between electric and toroidal dipole moments in TiO ₂ cylinders and frustums with coaxial voids. Journal of Physics: Conference Series, 2017, 929, 012065.	0.3	5
97	Highly stable silver nanoparticles for SERS applications. Journal of Physics: Conference Series, 2018, 1092, 012098.	0.3	5
98	Revealing Low-Radiative Modes of Nanoresonators with Internal Raman Scattering. JETP Letters, 2019, 110, 25-30.	0.4	5
99	Controllable Excitation of Surface Plasmon Polaritons in Grapheneâ€Based Semiconductor Quantum Dot Waveguides. Annalen Der Physik, 0, , 2100139.	0.9	5
100	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.	0.2	4
101	Holographic evanescent-wave focusing with nanoparticle arrays. Optics Express, 2008, 16, 17429.	1.7	4
102	Multipole optimization of light focusing by silicon nanosphere structures. Journal of the Optical Society of America B: Optical Physics, 2021, 38, 3009.	0.9	4
103	Electron impact ionization in p-type degenerate narrow-gap semiconductors with a Kane band dispersion law. Semiconductor Science and Technology, 1997, 12, 29-34.	1.0	3
104	Scattering of surface plasmon polaritons by a nanoparticle with the inclusion of the magnetic dipole contribution. JETP Letters, 2006, 83, 558-562.	0.4	3
105	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.	0.2	3
106	Nonradiating anapole modes of dielectric particles in terahertz range. , 2016, , .		3
107	Polarity of the Fano Resonance in the Nearâ€Field Magneticâ€Dipole Response of a Dielectric Particle Near a Conductive Surface. Laser and Photonics Reviews, 2018, 12, 1800037.	4.4	3
108	Polarization control of colors in resonant evanescent field scattering by silicon nanodisks [Invited]. Optical Materials Express, 2019, 9, 151.	1.6	3

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109	Multipole Born series approach to light scattering by Mie-resonant nanoparticle structures. Journal of Optics (United Kingdom), 2022, 24, 035603.	1.0	3
110	Cross Sections for Surface Plasmon Polariton Scattering from a Nanoparticle in the Dipole Approximation. Technical Physics Letters, 2005, 31, 817.	0.2	2
111	Focusing and manipulation of surface plasmon polaritons by laser fabricated dielectric structures. , 2007, , .		2
112	Characterization of localized field enhancements in laser fabricated gold needle nanostructures. Journal of the Optical Society of America B: Optical Physics, 2012, 29, 185.	0.9	2
113	Toroidal dipole associated resonant forward scattering of light by silicon nanoparticles. , 2017, , .		2
114	Fabrication of sub-150 nm structures by two-photon polymerization for plasmon excitation. , 2017, , .		2
115	Nontrivial optical response of silicon triangular prisms. Journal of Physics: Conference Series, 2021, 2015, 012111.	0.3	2
116	Two-photon polymerization and applications in plasmonics. , 2007, 6581, 174.		1
117	Theoretical modelling and leakage radiation microscopy of surface plasmon polariton excitation and scattering on laser fabricated surface structures. , 2010, , .		1
118	Multipole decomposition in discrete dipole approximation. , 2012, , .		1
119	Laser Generation and Printing of Nanoparticles. Springer Series in Materials Science, 2014, , 103-123.	0.4	1
120	Non-Huygens Invisible Metasurfaces. , 2019, , .		1
121	Optical multipole resonances of non-spherical silicon nanoparticles and the influence of illumination direction. , 2018, , .		1
122	Electromagnetic anapole States of nano-disks. AIP Conference Proceedings, 2020, , .	0.3	1
123	Born series using for designing of all-dielectric metalenses. AIP Conference Proceedings, 2020, , .	0.3	1
124	Anapole Observation in All-dielectric Trimer-based Metasurface. , 2022, , .		1
125	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.	0.2	0
126	Influence of interatomic correlation effects on short-range order in hexagonal close-packed polycrystalline alloys. Physics of the Solid State, 1999, 41, 1933-1939.	0.2	0

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127	Application of optical near-field microscopy for the investigation of semiconductor nanostructure properties. , 2002, , .		0
128	Effect of mesoscopic semiconductor perturbations on the electromagnetic field distribution in near-field optical microscopy. Technical Physics Letters, 2002, 28, 263-265.	0.2	0
129	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.	0.2	0
130	<title>Effect of mesoscopic objects located inside a sample on the distribution of light in surface near-field optical microscopy</title> . , 2004, , .		0
131	<title>Near-field optical diagnostics of nanoparticle structure buried within single dielectric layer</title> . , 2006, , .		0
132	Resonance near-field optical response of metal nanoparticle structures in a layer environment. , 2007,		0
133	Interband breakdown in a Kane semiconductor with a degenerate hole distribution. AIP Conference Proceedings, 2007, , .	0.3	0
134	Scattering of a surface plasmon polariton beam by chains ofÂdipole nanoparticles. Applied Physics B: Lasers and Optics, 2008, 93, 203-207.	1.1	0
135	Plasmonic micro-optical components utilizing nanoparticle arrays: Theoretical approach. Optical Memory and Neural Networks (Information Optics), 2008, 17, 249-253.	0.4	0
136	Excitation and focusing of surface plasmon polaritons by nanostructuring. Proceedings of SPIE, 2008,	0.8	0
137	Characterization of laser-written dielectric-loaded surface plasmon polariton waveguides by leakage radiation microscopy. , 2010, , .		Ο
138	Femtosecond laser fabrication of functional nanoparticle structures and their applications. , 2011, , .		0
139	Optical sensing elements based on ordered semiconductor and metal nanoparticle arrays and surface plasmons. , 2012, , .		0
140	Multipole contributions into resonant scattering of light by nonspherical nanoparticles using the discrete dipole approximation. Proceedings of SPIE, 2012, , .	0.8	0
141	Optical magnetic response of laser fabricated Si nanoparticles. , 2013, , .		0
142	Scattering, interference, and switching of ultrashort surface plasmon polaritons. , 2013, , .		0
143	The obtaining and deposition of silicon nanoparticles: Size control, luminescence in visible spectra. , 2016, , .		0
144	Multipole optical response of silicon nanoparticles of a conical shape. , 2017, , .		0

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145	Optimization for spatial separation of optical fields' components in all-dielectric structures. , 2017, , .		0
146	Multipole electromagnetic wave scattering by nonspherical high-refractive-index particles. , 2017, , .		0
147	Influence of Fabrication Methods of Gold and Silver Layers on Surface Plasmon Polaritons Propagation Length. Plasmonics, 2018, 13, 1359-1366.	1.8	0
148	Near-IR resonant response of Ge microparticles fabricated by femtosecond laser printing. Journal of Physics: Conference Series, 2018, 1092, 012175.	0.3	0
149	Non-Huygens invisible metasurfaces. Journal of Physics: Conference Series, 2020, 1461, 012156.	0.3	0
150	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	0
151	Evolutionary and genetic algorithms for design of metadevices working on electric dipole resonance. Journal of Physics: Conference Series, 2020, 1461, 012011.	0.3	0
152	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	0
153	Multipole analysis of periodic array of rotated silicon cubes. Journal of Physics: Conference Series, 2020, 1461, 012177.	0.3	0
154	Magnetic and Hybrid Anapole States in Dielectric Cylindrical Particles. , 2021, , .		0
155	Massive surface-plasmon polaritons. Nanophotonics, 2021, 10, 3777-3778.	2.9	0
156	Time Resolved Ultrafast Surface Plasmon-Polaritons. , 2016, , .		0
157	Control of Electric and Magnetic Resonances in Nanoparticle Metasurfaces. , 2018, , .		0
158	Optical response of semiconductor nanostructure with free charge carriers in scanning near-field optical microscope. , 2018, , 591-596.		0
159	Transmission and reflection features of all-dielectrics metasurfaces with electric and magnetic resonances. , 2019, , .		0
160	Observation of Directional Surface Plasmon Polariton Scattering by Single Low-index Dielectric Nanoparticles. , 2020, , .		0
161	Exciting magnetic octupole in near-infrared range by nanostructuring. AIP Conference Proceedings, 2020, , .	0.3	0
162	Electron Interband Breakdown in a Kane Semiconductor with a Degenerate Hole Distribution. Springer Proceedings in Physics, 2008, , 53-56.	0.1	0

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163	Application of Born series for modeling of Mie-resonant nanostructures. Journal of Physics: Conference Series, 2021, 2015, 012161.	0.3	0
164	Light focusing by silicon nanosphere structures under conditions of magnetic dipole and quadrupole resonances. Journal of Physics: Conference Series, 2021, 2015, 012160.	0.3	0