Alexander V Uskov

List of Publications by Year
in descending order

60 papers	925 citations	623734 14 h-index	454955 30 g-index
60 all docs	60 docs citations	60 times ranked	938 citing authors

#	Article	IF	Citations
1	Dynamics of light propagation in spatiotemporal dielectric structures. Physical Review E, 2007, 75, 046607.	2.1	124
2	The linewidth enhancement factor Î± of quantum dot semiconductor lasers. Optics Express, 2006, 14, 2950.	3.4	119
3	Spontaneous Hot-Electron Light Emission from Electron-Fed Optical Antennas. Nano Letters, 2015, 15, 5811-5818.	9.1	85
4	Enhanced Electron Photoemission by Collective Lattice Resonances in Plasmonic Nanoparticle-Array Photodetectors and Solar Cells. Plasmonics, 2014, 9, 283-289.	3.4	60
5	Internal photoemission from plasmonic nanoparticles: comparison between surface and volume photoelectric effects. Nanoscale, 2014, 6, 4716.	5.6	52
6	Photoemission from metal nanoparticles. Physics-Uspekhi, 2012, 55, 508-518.	2.2	48
7	Broadening of Plasmonic Resonance Due to Electron Collisions with Nanoparticle Boundary: Ð° Quantum Mechanical Consideration. Plasmonics, 2014, 9, 185-192.	3.4	48
8	Excitation of plasmonic nanoantennas by nonresonant and resonant electron tunnelling. Nanoscale, 2016, 8, 14573-14579.	5.6	40
9	Experimental demonstration of slow and superluminal light in semiconductor optical amplifiers. Optics Express, 2006, 14, 12968.	3.4	37
10	Hot Electron Photoemission from Plasmonic Nanostructures: The Role of Surface Photoemission and Transition Absorption. ACS Photonics, 2015, 2, 1039-1048.	6.6	33
11	Photon absorption and photocurrent in solar cells below semiconductor bandgap due to electron photoemission from plasmonic nanoantennas. Progress in Photovoltaics: Research and Applications, 2014, 22, 422-426.	8.1	30
12	Control of the input efficiency of photons into solar cells with plasmonic nanoparticles. Optics Communications, 2011, 284, 2226-2229.	2.1	19
13	Auger Capture Induced Carrier Heating in Quantum Dot Lasers and Amplifiers. Applied Physics Express, 2011, 4, 022202.	2.4	19
14	Direct Plasmonic Excitation of the Hybridized Surface States in Metal Nanoparticles. ACS Photonics, 2021, 8, 2041-2049.	6.6	17
15	Chirp-enhanced fast light in semiconductor optical amplifiers. Optics Express, 2007, 15, 17631.	3.4	14
16	Giant Photogalvanic Effect in Noncentrosymmetric Plasmonic Nanoparticles. Physical Review X, 2014, 4, .	8.9	14
17	Superradiance of several atoms near a metal nanosphere. Quantum Electronics, 2015, 45, 561-572.	1.0	13
18	Electron photoemission in plasmonic nanoparticle arrays: analysis of collective resonances and embedding effects. Applied Physics A: Materials Science and Processing, 2014, 116, 929-940.	2.3	12

#	Article	IF	Citations
19	Electrically tunable fast light at THz bandwidth using cascaded semiconductor optical amplifiers. Optics Express, 2007, 15, 15863.	3.4	11
20	Biased Nanoscale Contact as Active Element for Electrically Driven Plasmonic Nanoantenna. ACS Photonics, 2017, 4, 1501-1505.	6.6	10
21	Landau Damping in Hybrid Plasmonics. Journal of Physical Chemistry Letters, 2022, 13, 997-1001.	4.6	10
22	Electromigrated electrical optical antennas for transducing electrons and photons at the nanoscale. Beilstein Journal of Nanotechnology, 2018, 9, 1964-1976.	2.8	9
23	Ultrahigh-bandwidth electrically tunable fast and slow light in semiconductor optical amplifiers [Invited]. Journal of the Optical Society of America B: Optical Physics, 2008, 25, C46.	2.1	8
24	Greatly enhanced slow and fast light in chirped pulse semiconductor optical amplifiers: Theory and experiments. Optics Express, 2009, 17, 2188.	3.4	8
25	Increasing the efficiency of organic solar cells using plasmonic nanoparticles. Technical Physics Letters, 2013, 39, 450-453.	0.7	8
26	Bulk photoemission from metal films and nanoparticles. Quantum Electronics, 2015, 45, 50-58.	1.0	8
27	Crucial Role of Metal Surface Morphology in Photon Emission from a Tunnel Junction at Ambient Conditions. Journal of Physical Chemistry C, 2019, 123, 8813-8817.	3.1	8
28	Transition absorption as a mechanism of surface photoelectron emission from metals. Physica Status Solidi - Rapid Research Letters, 2015, 9, 570-574.	2.4	6
29	Bulk Photoemission from Plasmonic Nanoantennas of Different Shapes. Journal of Physical Chemistry C, 2018, 122, 11985-11992.	3.1	5
30	Effect of quantized conductivity on the anomalous photon emission radiated from atomic-size point contacts. Nanophotonics, 2020, 9, 413-425.	6.0	5
31	Surface and volume photoeffect from metal nanoparticles with electron mass discontinuity. Physical Review B, 2021, 103, .	3.2	5
32	Landau broadening of plasmonic resonances in the Mie theory. Optics Letters, 2020, 45, 2644.	3.3	5
33	Resonance photogeneration of hot electrons through Tamm surface states. Optics Letters, 2021, 46, 568.	3.3	4
34	Hot electron photoemission in metalâ€“semiconductor structures aided by resonance tunneling. Applied Physics Letters, 2021, 118, .	3.3	4
35	Dependence of the Electron Photoemission from Metallic Nanoparticles on Their Size. Journal of Russian Laser Research, 2014, 35, 501-508.	0.6	3
36	Plasmonic superradiance of two emitters near a metal nanorod. Journal Physics D: Applied Physics, 2017, 50, 254003.	2.8	3

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37	Coherent surface plasmon amplification through the dissipative instability of 2D direct current. Nanophotonics, 2018, 8, 135-143.	6.0	3
38	Resonant Mass Detector Based on Carbon Nanowhiskers with Traps for Nanoobjects Weighing. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1800046.	1.8	3
39	Dipole lasing stimulated by nano-antenna. Proceedings of SPIE, 2008, , .	0.8	2
40	Pulse-burst Er:glass laser. , 2017, , .		2
41	Electrostatic Control over Optically Pumped Hot Electrons in Optical Gap Antennas. ACS Photonics, 2020, 7, 2153-2162.	6.6	2
42	Hot electron generation via internal surface photo-effect in structures with quantum well. , 2020, , .		2
43	Photoemission from Metal Nanoparticles. , 0, , .		2
44	Damping and feedback characteristics of quantum dot semiconductor lasers. , 2004, , .		1
45	Nonlinear refractive index and pattern-effects-free cross-phase modulation in quantum dot semiconductor optical amplifiers. , 2004, , .		1
46	Bistability in a Quantum Nonlinear Oscillator Excited by a Stochastic Force. Journal of Russian Laser Research, 2015, 36, 458-466.	0.6	1
47	Electrically-driven optical antennas enabled by mesoscopic contacts. , 2017, , .		1
48	Metal Nanoparticles with Effective Photoemission. Journal of Russian Laser Research, 2021, 42, 650.	0.6	1
49	On pattern-effects-free operation of QD SOAs for high-speed applications. , 2004, , .		0
50	Theory of nonlinear gain due to spectral hole burning in quantum dot lasers and amplifiers. , 2005, , .		0
51	Slow and superluminal light based on four-wave mixing in semiconductor optical amplifiers. , 2006, , .		0
52	Novel Chirp-Enhanced Tunable Fast Light of Ultra-Short Pulses in Semiconductor Optical Amplifiers. , 2008, , .		0
53	Non-Contact Detection of Nonlinear Conductance in Island Metal Films. Journal of Russian Laser Research, 2013, 34, 537-552.	0.6	0
54	Plasmonic nanocone arrays as photoconductive and photovoltaic metamaterials. , 2014, , .		0

#	Article	IF	Citations
55	Bulk photovoltaic effect in photoconductive metamaterials based on cone-shaped nanoparticles. Proceedings of SPIE, 2014, , .	0.8	0
56	Plasmonic superradiance of two emitters near metal nanorod. , 2017, , .		0
57	Efficient Q-switched operation in 1.64 Î¼m Er:YAG tapered rod laser. Proceedings of SPIE, 2017, , .	0.8	0
58	Highly stable RF signal from a mode-locked laser stabilized to multiple saturated absorption lines. , 2017, , .		0
59	Superradiance with Incoherent Nonradiative Decay. Journal of Russian Laser Research, 2018, 39, 401-410.	0.6	0
60	New Design of Two-Dimensional Array of Laser Diodes With Direct Convective Cooling. IEEE Journal of Quantum Electronics, 2022, 58, 1-8.	1.9	0