Sergei V Zhukovsky

List of Publications by Year
in descending order

77	2,049	236612	243296
papers	citations	25 h-index	44 g-index

78	78	78	1883
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Subwavelength Hyperlens Resolution With Perfect Contrast Function. Annalen Der Physik, 2018, 530, 1700300.	0.9	6
2	Dark-field hyperlens for high-contrast sub-wavelength imaging. , 2016, , .		0
3	Graphene-Enhanced Metamaterials for THz Applications. NATO Science for Peace and Security Series B: Physics and Biophysics, 2016, , 145-169.	0.2	2
4	Effective medium approximation for deeply subwavelength all-dielectric multilayers: when does it break down?. Proceedings of SPIE, 2016, , .	0.8	0
5	Experimental Demonstration of Effective Medium Approximation Breakdown in Deeply Subwavelength All-Dielectric Multilayers. Physical Review Letters, 2015, 115, 177402.	2.9	62
6	Transition absorption as a mechanism of surface photoelectron emission from metals. Physica Status Solidi - Rapid Research Letters, 2015, 9, 570-574.	1.2	6
7	Photoswitchable molecular dipole antennas with tailored coherent coupling in glassy composite. Light: Science and Applications, 2015, 4, e316-e316.	7.7	18
8	Hot Electron Photoemission from Plasmonic Nanostructures: The Role of Surface Photoemission and Transition Absorption. ACS Photonics, 2015, 2, 1039-1048.	3.2	33
9	Anomalous effective medium approximation breakdown in deeply subwavelength all-dielectric photonic multilayers. Nanotechnology, 2015, 26, 184001.	1.3	33
10	Dark-field hyperlens: Super-resolution imaging of weakly scattering objects. Optics Express, 2015, 23, 25350.	1.7	25
11	Nanophotonic Modulator with Bismuth Ferrite as Low-loss Switchable Material. , 2015, , .		1
12	Retrieval of Effective Parameters of Subwavelength Periodic Photonic Structures. Crystals, 2014, 4, 417-426.	1.0	9
13	Rough metal and dielectric layers make an even better hyperbolic metamaterial absorber. Optics Express, 2014, 22, 14975.	1.7	20
14	Bismuth ferrite as low-loss switchable material for plasmonic waveguide modulator. Optics Express, 2014, 22, 28890.	1.7	24
15	Hyperbolic metamaterials based on quantum-dot plasmon-resonator nanocomposites. Optics Express, 2014, 22, 18290.	1.7	17
16	Bismuth ferrite for active control of surface plasmon polariton modes. , 2014, , .		0
17	Plasmonic nanocone arrays as photoconductive and photovoltaic metamaterials. , 2014, , .		0
18	From surface to volume plasmons in hyperbolic metamaterials: General existence conditions for bulk high-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>k</mml:mi></mml:math>waves in metal-dielectric and graphene-dielectric multilayers. Physical Review B, 2014, 90, .	1.1	53

#	Article	IF	Citations
19	Bulk photovoltaic effect in photoconductive metamaterials based on cone-shaped nanoparticles. Proceedings of SPIE, 2014, , .	0.8	0
20	Existence conditions for bulk large-wavevector waves in metal-dielectric and graphene-dielectric multilayer hyperbolic metamaterials. , 2014, , .		0
21	Asymmetric bistable reflection and polarization switching in a magnetic nonlinear multilayer structure. Journal of Modern Optics, 2014, 61, 276-285.	0.6	3
22	Internal photoemission from plasmonic nanoparticles: comparison between surface and volume photoelectric effects. Nanoscale, 2014, 6, 4716.	2.8	52
23	Controlling light with plasmonic multilayers. Photonics and Nanostructures - Fundamentals and Applications, 2014, 12, 213-230.	1.0	52
24	Enhanced Electron Photoemission by Collective Lattice Resonances in Plasmonic Nanoparticle-Array Photodetectors and Solar Cells. Plasmonics, 2014, 9, 283-289.	1.8	60
25	Engineering light-matter interaction for emerging optical manipulation applications. Nanophotonics, 2014, 3, 181-201.	2.9	42
26	Photonic-band-gap engineering for volume plasmon polaritons in multiscale multilayer hyperbolic metamaterials. Physical Review A, 2014, 90, .	1.0	58
27	Giant Photogalvanic Effect in Noncentrosymmetric Plasmonic Nanoparticles. Physical Review X, 2014, 4, .	2.8	14
28	Electron photoemission in plasmonic nanoparticle arrays: analysis of collective resonances and embedding effects. Applied Physics A: Materials Science and Processing, 2014, 116, 929-940.	1.1	12
29	Multiperiodicity in plasmonic multilayers: General description and diversity of topologies. Physical Review A, 2014, 90, .	1.0	14
30	Hyperentangled photon sources in semiconductor waveguides. Physical Review A, 2014, 89, .	1.0	16
31	Dichroism, chirality, and polarization eigenstates in Babinet nanoslot-dimer membrane metamaterials. Photonics and Nanostructures - Fundamentals and Applications, 2013, 11, 353-361.	1.0	5
32	Optically active Babinet planar metamaterial film for terahertz polarization manipulation. Laser and Photonics Reviews, 2013, 7, 810-817.	4.4	27
33	Physical nature of volume plasmon polaritons in hyperbolic metamaterials. Optics Express, 2013, 21, 14982.	1.7	128
34	Analytical description of photonic waveguides with multilayer claddings: Towards on-chip generation of entangled photons and Bell states. Optics Communications, 2013, 301-302, 127-140.	1.0	10
35	Engineering the propagation of high-k bulk plasmonic waves in multilayer hyperbolic metamaterials by multiscale structuring. , 2013, , .		1
36	Inherent polarization entanglement generated from a monolithic semiconductor chip. Scientific Reports, 2013, 3, 2314.	1.6	78

#	Article	IF	Citations
37	Design of high-transmission multiband multilayer filters for Raman spectroscopy. Journal of Nanophotonics, 2012, 6, 061704.	0.4	8
38	Dichroism versus chirality in plasmonic dimer metamaterials: A multipole approach. , 2012, , .		0
39	Reflectors and resonators for high-k bulk Bloch plasmonic waves in multilayer hyperbolic metamaterials. , 2012, , .		0
40	Bragg reflection waveguides as integrated sources of entangled photon pairs. Journal of the Optical Society of America B: Optical Physics, 2012, 29, 2516.	0.9	18
41	Asymmetric transmission in planar chiral split-ring metamaterials: Microscopic Lorentz-theory approach. Physical Review B, 2012, 86, .	1.1	49
42	FIELD APPROACH IN THE TRANSFORMATION OPTICS CONCEPT. Progress in Electromagnetics Research, 2012, 129, 485-515.	1.6	10
43	Polarization switching and nonreciprocity in symmetric and asymmetric magnetophotonic multilayers with nonlinear defect. Physical Review A, 2012, 85, .	1.0	17
44	Effective-medium approach to planar multilayer hyperbolic metamaterials: Strengths and limitations. Physical Review A, 2012, 85, .	1.0	224
45	Generation of maximally-polarization-entangled photons on a chip. Physical Review A, 2012, 85, .	1.0	28
46	Quenching of photoluminescence in cadmium selenide nanocrystals in external electric fields for different excitation photon energies. Journal of Applied Spectroscopy, 2012, 79, 95-103.	0.3	6
47	All-optical diode action in asymmetric nonlinear photonic multilayers with perfect transmission resonances. Physical Review A, 2011, 83, .	1.0	80
48	Plasmonic rod dimers as elementary planar chiral meta-atoms. Optics Letters, 2011, 36, 2278.	1.7	30
49	Dipole radiation near hyperbolic metamaterials: applicability of effective-medium approximation. Optics Letters, 2011, 36, 2530.	1.7	125
50	Proposal for on-chip generation and control of photon hyperentanglement. Optics Letters, 2011, 36, 3548.	1.7	8
51	Unidirectional Perfect Transmission Resonances in Nonlinear Asymmetric Photonic Multilayers. , 2011, , .		0
52	Local photonic modes in periodic or random, dielectric, and lasing media. Applied Physics B: Lasers and Optics, 2011, 105, 163-180.	1.1	2
53	Plasmonic nanoparticle monomers and dimers: from nanoantennas to chiral metamaterials. Applied Physics B: Lasers and Optics, 2011, 105, 81-97.	1.1	38
54	Wavelength self-switching in bistable microlasers. , 2010, , .		0

#	Article	IF	Citations
55	Perfect transmission and highly asymmetric light localization in photonic multilayers. Physical Review A, 2010, 81, .	1.0	48
56	Plasmonic Dimers as Planar Chiral Meta-Atoms. , 2010, , .		0
57	Bistability and mode interaction in microlasers. Physical Review A, 2009, 79, .	1.0	15
58	Elliptical dichroism: operating principle of planar chiral metamaterials. Optics Letters, 2009, 34, 1988.	1.7	87
59	Optical memory based on ultrafast wavelength switching in a bistable microlaser. Optics Letters, 2009, 34, 3310.	1.7	9
60	Ultrafast wavelength switching in bistable microlasers for optical memory applications. , 2009, , .		0
61	Numerical time-domain simulation of planar chiral metamaterials. , 2009, , .		1
62	Constraints on transmission, dispersion, and density of states in dielectric multilayers and stepwise potential barriers with an arbitrary layer arrangement. Physical Review E, 2008, 77, 046602.	0.8	24
63	Switchable Lasing in Multimode Microcavities. Physical Review Letters, 2007, 99, 073902.	2.9	49
64	Fibonacci-like photonic structure for femtosecond pulse compression. Physical Review E, 2007, 75, 036609.	0.8	18
65	Coupled nanopillar waveguides optical properties and applications. Physica Status Solidi (A) Applications and Materials Science, 2007, 204, 3647-3661.	0.8	9
66	Selective lasing in multimode periodic and non-periodic nanopillar waveguides. Physica Status Solidi (B): Basic Research, 2007, 244, 1211-1218.	0.7	12
67	Numerical modelling of lasing in microstructures. Physica Status Solidi (B): Basic Research, 2007, 244, 3515-3527.	0.7	15
68	Low-loss resonant modes in deterministically aperiodic nanopillar waveguides. Journal of the Optical Society of America B: Optical Physics, 2006, 23, 2265.	0.9	9
69	Analytical demonstration of omnidirectional transmission enhancement in dispersive birefringent photonic-bandgap structures: erratum. Journal of the Optical Society of America B: Optical Physics, 2006, 23, 2605.	0.9	0
70	Spectral and polarization effects in deterministically non-periodic multilayers containing optically anisotropic and gyrotropic materials. Journal of Optics, 2006, 8, 489-500.	1.5	9
71	Femtosecond pulses chirping compensation by using one-dimensional compact multiple-defect photonic crystals. Applied Physics Letters, 2006, 89, 031111.	1.5	19
72	Spectral self-similarity in fractal one-dimensional photonic structures. Photonics and Nanostructures - Fundamentals and Applications, 2005, 3, 129-133.	1.0	10

#	Article	IF	Citations
73	Analytical demonstration of omnidirectional transmission enhancement in dispersive birefringent photonic-bandgap structures. Journal of the Optical Society of America B: Optical Physics, 2005, 22, 1785.	0.9	8
74	Spectral scalability as a result of geometrical self-similarity in fractal multilayers. Europhysics Letters, 2004, 66, 455-461.	0.7	38
75	Anomalous phase in one-dimensional, multilayer, periodic structures with birefringent materials. Physical Review B, 2004, 70, .	1.1	15
76	Propagation of classical waves in nonperiodic media: Scaling properties of an optical Cantor filter. Physical Review E, 2002, 65, 036621.	0.8	115
77	Propagation of waves in layered structures viewed as number recognition. Optics Communications, 2002, 205, 49-57.	1.0	15