

Sergei V Zhukovsky

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1316988/publications.pdf>

Version: 2024-02-01

77
papers

2,049
citations

236612

25
h-index

243296

44
g-index

78
all docs

78
docs citations

78
times ranked

1883
citing authors

#	ARTICLE	IF	CITATIONS
1	Effective-medium approach to planar multilayer hyperbolic metamaterials: Strengths and limitations. Physical Review A, 2012, 85, .	1.0	224
2	Physical nature of volume plasmon polaritons in hyperbolic metamaterials. Optics Express, 2013, 21, 14982.	1.7	128
3	Dipole radiation near hyperbolic metamaterials: applicability of effective-medium approximation. Optics Letters, 2011, 36, 2530.	1.7	125
4	Propagation of classical waves in nonperiodic media: Scaling properties of an optical Cantor filter. Physical Review E, 2002, 65, 036621.	0.8	115
5	Elliptical dichroism: operating principle of planar chiral metamaterials. Optics Letters, 2009, 34, 1988.	1.7	87
6	All-optical diode action in asymmetric nonlinear photonic multilayers with perfect transmission resonances. Physical Review A, 2011, 83, .	1.0	80
7	Inherent polarization entanglement generated from a monolithic semiconductor chip. Scientific Reports, 2013, 3, 2314.	1.6	78
8	Experimental Demonstration of Effective Medium Approximation Breakdown in Deeply Subwavelength All-Dielectric Multilayers. Physical Review Letters, 2015, 115, 177402.	2.9	62
9	Enhanced Electron Photoemission by Collective Lattice Resonances in Plasmonic Nanoparticle-Array Photodetectors and Solar Cells. Plasmonics, 2014, 9, 283-289.	1.8	60
10	Photonic-band-gap engineering for volume plasmon polaritons in multiscale multilayer hyperbolic metamaterials. Physical Review A, 2014, 90, .	1.0	58
11	From surface to volume plasmons in hyperbolic metamaterials: General existence conditions for bulk high- k waves in metal-dielectric and graphene-dielectric multilayers. Physical Review B, 2014, 90, .	1.1	53
12	Internal photoemission from plasmonic nanoparticles: comparison between surface and volume photoelectric effects. Nanoscale, 2014, 6, 4716.	2.8	52
13	Controlling light with plasmonic multilayers. Photonics and Nanostructures - Fundamentals and Applications, 2014, 12, 213-230.	1.0	52
14	Switchable Lasing in Multimode Microcavities. Physical Review Letters, 2007, 99, 073902.	2.9	49
15	Asymmetric transmission in planar chiral split-ring metamaterials: Microscopic Lorentz-theory approach. Physical Review B, 2012, 86, .	1.1	49
16	Perfect transmission and highly asymmetric light localization in photonic multilayers. Physical Review A, 2010, 81, .	1.0	48
17	Engineering light-matter interaction for emerging optical manipulation applications. Nanophotonics, 2014, 3, 181-201.	2.9	42
18	Spectral scalability as a result of geometrical self-similarity in fractal multilayers. Europhysics Letters, 2004, 66, 455-461.	0.7	38

#	ARTICLE	IF	CITATIONS
19	Plasmonic nanoparticle monomers and dimers: from nanoantennas to chiral metamaterials. <i>Applied Physics B: Lasers and Optics</i> , 2011, 105, 81-97.	1.1	38
20	Hot Electron Photoemission from Plasmonic Nanostructures: The Role of Surface Photoemission and Transition Absorption. <i>ACS Photonics</i> , 2015, 2, 1039-1048.	3.2	33
21	Anomalous effective medium approximation breakdown in deeply subwavelength all-dielectric photonic multilayers. <i>Nanotechnology</i> , 2015, 26, 184001.	1.3	33
22	Plasmonic rod dimers as elementary planar chiral meta-atoms. <i>Optics Letters</i> , 2011, 36, 2278.	1.7	30
23	Generation of maximally-polarization-entangled photons on a chip. <i>Physical Review A</i> , 2012, 85, .	1.0	28
24	Optically active Babinet planar metamaterial film for terahertz polarization manipulation. <i>Laser and Photonics Reviews</i> , 2013, 7, 810-817.	4.4	27
25	Dark-field hyperlens: Super-resolution imaging of weakly scattering objects. <i>Optics Express</i> , 2015, 23, 25350.	1.7	25
26	Constraints on transmission, dispersion, and density of states in dielectric multilayers and stepwise potential barriers with an arbitrary layer arrangement. <i>Physical Review E</i> , 2008, 77, 046602.	0.8	24
27	Bismuth ferrite as low-loss switchable material for plasmonic waveguide modulator. <i>Optics Express</i> , 2014, 22, 28890.	1.7	24
28	Rough metal and dielectric layers make an even better hyperbolic metamaterial absorber. <i>Optics Express</i> , 2014, 22, 14975.	1.7	20
29	Femtosecond pulses chirping compensation by using one-dimensional compact multiple-defect photonic crystals. <i>Applied Physics Letters</i> , 2006, 89, 031111.	1.5	19
30	Fibonacci-like photonic structure for femtosecond pulse compression. <i>Physical Review E</i> , 2007, 75, 036609.	0.8	18
31	Bragg reflection waveguides as integrated sources of entangled photon pairs. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2012, 29, 2516.	0.9	18
32	Photoswitchable molecular dipole antennas with tailored coherent coupling in glassy composite. <i>Light: Science and Applications</i> , 2015, 4, e316-e316.	7.7	18
33	Polarization switching and nonreciprocity in symmetric and asymmetric magnetophotonic multilayers with nonlinear defect. <i>Physical Review A</i> , 2012, 85, .	1.0	17
34	Hyperbolic metamaterials based on quantum-dot plasmon-resonator nanocomposites. <i>Optics Express</i> , 2014, 22, 18290.	1.7	17
35	Hyperentangled photon sources in semiconductor waveguides. <i>Physical Review A</i> , 2014, 89, .	1.0	16
36	Propagation of waves in layered structures viewed as number recognition. <i>Optics Communications</i> , 2002, 205, 49-57.	1.0	15

#	ARTICLE	IF	CITATIONS
37	Anomalous phase in one-dimensional, multilayer, periodic structures with birefringent materials. <i>Physical Review B</i> , 2004, 70, .	1.1	15
38	Numerical modelling of lasing in microstructures. <i>Physica Status Solidi (B): Basic Research</i> , 2007, 244, 3515-3527.	0.7	15
39	Bistability and mode interaction in microlasers. <i>Physical Review A</i> , 2009, 79, .	1.0	15
40	Giant Photogalvanic Effect in Noncentrosymmetric Plasmonic Nanoparticles. <i>Physical Review X</i> , 2014, 4, .	2.8	14
41	Multiperiodicity in plasmonic multilayers: General description and diversity of topologies. <i>Physical Review A</i> , 2014, 90, .	1.0	14
42	Selective lasing in multimode periodic and non-periodic nanopillar waveguides. <i>Physica Status Solidi (B): Basic Research</i> , 2007, 244, 1211-1218.	0.7	12
43	Electron photoemission in plasmonic nanoparticle arrays: analysis of collective resonances and embedding effects. <i>Applied Physics A: Materials Science and Processing</i> , 2014, 116, 929-940.	1.1	12
44	Spectral self-similarity in fractal one-dimensional photonic structures. <i>Photonics and Nanostructures - Fundamentals and Applications</i> , 2005, 3, 129-133.	1.0	10
45	FIELD APPROACH IN THE TRANSFORMATION OPTICS CONCEPT. <i>Progress in Electromagnetics Research</i> , 2012, 129, 485-515.	1.6	10
46	Analytical description of photonic waveguides with multilayer claddings: Towards on-chip generation of entangled photons and Bell states. <i>Optics Communications</i> , 2013, 301-302, 127-140.	1.0	10
47	Low-loss resonant modes in deterministically aperiodic nanopillar waveguides. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2006, 23, 2265.	0.9	9
48	Spectral and polarization effects in deterministically non-periodic multilayers containing optically anisotropic and gyrotropic materials. <i>Journal of Optics</i> , 2006, 8, 489-500.	1.5	9
49	Coupled nanopillar waveguides optical properties and applications. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2007, 204, 3647-3661.	0.8	9
50	Optical memory based on ultrafast wavelength switching in a bistable microlaser. <i>Optics Letters</i> , 2009, 34, 3310.	1.7	9
51	Retrieval of Effective Parameters of Subwavelength Periodic Photonic Structures. <i>Crystals</i> , 2014, 4, 417-426.	1.0	9
52	Analytical demonstration of omnidirectional transmission enhancement in dispersive birefringent photonic-bandgap structures. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2005, 22, 1785.	0.9	8
53	Proposal for on-chip generation and control of photon hyperentanglement. <i>Optics Letters</i> , 2011, 36, 3548.	1.7	8
54	Design of high-transmission multiband multilayer filters for Raman spectroscopy. <i>Journal of Nanophotonics</i> , 2012, 6, 061704.	0.4	8

#	ARTICLE	IF	CITATIONS
55	Quenching of photoluminescence in cadmium selenide nanocrystals in external electric fields for different excitation photon energies. <i>Journal of Applied Spectroscopy</i> , 2012, 79, 95-103.	0.3	6
56	Transition absorption as a mechanism of surface photoelectron emission from metals. <i>Physica Status Solidi - Rapid Research Letters</i> , 2015, 9, 570-574.	1.2	6
57	Subwavelength Hyperlens Resolution With Perfect Contrast Function. <i>Annalen Der Physik</i> , 2018, 530, 1700300.	0.9	6
58	Dichroism, chirality, and polarization eigenstates in Babinet nanoslot-dimer membrane metamaterials. <i>Photonics and Nanostructures - Fundamentals and Applications</i> , 2013, 11, 353-361.	1.0	5
59	Asymmetric bistable reflection and polarization switching in a magnetic nonlinear multilayer structure. <i>Journal of Modern Optics</i> , 2014, 61, 276-285.	0.6	3
60	Local photonic modes in periodic or random, dielectric, and lasing media. <i>Applied Physics B: Lasers and Optics</i> , 2011, 105, 163-180.	1.1	2
61	Graphene-Enhanced Metamaterials for THz Applications. <i>NATO Science for Peace and Security Series B: Physics and Biophysics</i> , 2016, , 145-169.	0.2	2
62	Numerical time-domain simulation of planar chiral metamaterials. , 2009, , .		1
63	Engineering the propagation of high-k bulk plasmonic waves in multilayer hyperbolic metamaterials by multiscale structuring. , 2013, , .		1
64	Nanophotonic Modulator with Bismuth Ferrite as Low-loss Switchable Material. , 2015, , .		1
65	Analytical demonstration of omnidirectional transmission enhancement in dispersive birefringent photonic-bandgap structures: erratum. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2006, 23, 2605.	0.9	0
66	Ultrafast wavelength switching in bistable microlasers for optical memory applications. , 2009, , .		0
67	Wavelength self-switching in bistable microlasers. , 2010, , .		0
68	Unidirectional Perfect Transmission Resonances in Nonlinear Asymmetric Photonic Multilayers. , 2011, , .		0
69	Dichroism versus chirality in plasmonic dimer metamaterials: A multipole approach. , 2012, , .		0
70	Reflectors and resonators for high-k bulk Bloch plasmonic waves in multilayer hyperbolic metamaterials. , 2012, , .		0
71	Bismuth ferrite for active control of surface plasmon polariton modes. , 2014, , .		0
72	Plasmonic nanocone arrays as photoconductive and photovoltaic metamaterials. , 2014, , .		0

#	ARTICLE	IF	CITATIONS
73	Bulk photovoltaic effect in photoconductive metamaterials based on cone-shaped nanoparticles. Proceedings of SPIE, 2014, , .	0.8	0
74	Existence conditions for bulk large-wavevector waves in metal-dielectric and graphene-dielectric multilayer hyperbolic metamaterials. , 2014, , .		0
75	Dark-field hyperlens for high-contrast sub-wavelength imaging. , 2016, , .		0
76	Effective medium approximation for deeply subwavelength all-dielectric multilayers: when does it break down?. Proceedings of SPIE, 2016, , .	0.8	0
77	Plasmonic Dimers as Planar Chiral Meta-Atoms. , 2010, , .		0