

Alexander Moroz

List of Publications by Year in descending order

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86
papers

2,641
citations

159525

30
h-index

189801

50
g-index

87
all docs

87
docs citations

87
times ranked

2649
citing authors

#	ARTICLE	IF	CITATIONS
1	Distance Dependence of Single-Fluorophore Quenching by Gold Nanoparticles Studied on DNA Origami. ACS Nano, 2012, 6, 3189-3195.	7.3	274
2	Three-Dimensional Complete Photonic-Band-gap Structures in the Visible. Physical Review Letters, 1999, 83, 5274-5277.	2.9	214
3	Negative refractive index metamaterials from inherently non-magnetic materials for deep infrared to terahertz frequency ranges. Journal of Physics Condensed Matter, 2005, 17, 3717-3734.	0.7	173
4	Depolarization field of spheroidal particles. Journal of the Optical Society of America B: Optical Physics, 2009, 26, 517.	0.9	150
5	Photonic crystals of core-shell colloidal particles. Applied Physics Letters, 2002, 80, 49-51.	1.5	140
6	Metallo-dielectric diamond and zinc-blende photonic crystals. Physical Review B, 2002, 66, .	1.1	126
7	A recursive transfer-matrix solution for a dipole radiating inside and outside a stratified sphere. Annals of Physics, 2005, 315, 352-418.	1.0	96
8	Photonic band gaps of three-dimensional face-centred cubic lattices. Journal of Physics Condensed Matter, 1999, 11, 997-1008.	0.7	93
9	Electron Mean Free Path in a Spherical Shell Geometry. Journal of Physical Chemistry C, 2008, 112, 10641-10652.	1.5	84
10	Photonic crystals of coated metallic spheres. Europhysics Letters, 2000, 50, 466-472.	0.7	76
11	Density-of-states calculations and multiple-scattering theory for photons. Physical Review B, 1995, 51, 2068-2081.	1.1	68
12	Band structure of absorptive photonic crystals. Journal of Physics A, 2000, 33, 6223-6252.	1.6	58
13	Local optical density of states in SiO ₂ spherical microcavities: Theory and experiment. Physical Review A, 2001, 64, .	1.0	58
14	High trapping forces for high-refractive index particles trapped in dynamic arrays of counterpropagating optical tweezers. Applied Optics, 2008, 47, 3196.	2.1	53
15	Silver-coated silicon pillar photonic crystals: Enhancement of a photonic band gap. Applied Physics Letters, 2003, 82, 508-510.	1.5	48
16	Non-radiative decay of a dipole emitter close to a metallic nanoparticle: Importance of higher-order multipole contributions. Optics Communications, 2010, 283, 2277-2287.	1.0	45
17	Optical cavity modes in gold shell colloids. Journal of Applied Physics, 2008, 103, .	1.1	44
18	Towards two-dimensional complete photonic bandgap structures below infrared wavelengths. Journal of Optics, 2000, 2, 395-399.	1.5	43

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19	Critical Role of Shell in Enhanced Fluorescence of Metal-Dielectric Core-Shell Nanoparticles. Journal of Physical Chemistry C, 2020, 124, 13365-13373.	1.5	43
20	Exponentially convergent lattice sums. Optics Letters, 2001, 26, 1119.	1.7	39
21	Optical Properties of Spherical and Oblate Spheroidal Gold Shell Colloids. Journal of Physical Chemistry C, 2008, 112, 4146-4150.	1.5	39
22	Quasi-periodic Green's functions of the Helmholtz and Laplace equations. Journal of Physics A, 2006, 39, 11247-11282.	1.6	36
23	Spectroscopic properties of a two-level atom interacting with a complex spherical nanoshell. Chemical Physics, 2005, 317, 1-15.	0.9	35
24	Synthesizing multi-dimensional excitation dynamics and localization transition in one-dimensional lattices. Nature Photonics, 2020, 14, 76-81.	15.6	35
25	Band structure of absorptive two-dimensional photonic crystals. Journal of the Optical Society of America B: Optical Physics, 2003, 20, 1334.	0.9	34
26	Design and optimization of 2D photonic crystal waveguides based on silicon. Optical and Quantum Electronics, 2002, 34, 145-159.	1.5	33
27	On the spectrum of a class of quantum models. Europhysics Letters, 2012, 100, 60010.	0.7	33
28	Minima and maxima of the local density of states for one-dimensional periodic systems. Europhysics Letters, 1999, 46, 419-424.	0.7	32
29	Modified spontaneous emission in erbium-doped SiO ₂ spherical colloids. Applied Physics Letters, 2001, 79, 3585-3587.	1.5	32
30	On solvability and integrability of the Rabi model. Annals of Physics, 2013, 338, 319-340.	1.0	30
31	Improvement of Mishchenko's T-matrix code for absorbing particles. Applied Optics, 2005, 44, 3604.	2.1	29
32	A hidden analytic structure of the Rabi model. Annals of Physics, 2014, 340, 252-266.	1.0	28
33	Single-particle density of states, bound states, phase-shift flip, and a resonance in the presence of an Aharonov-Bohm potential. Physical Review A, 1996, 53, 669-694.	1.0	27
34	STRATIFY: a comprehensive and versatile MATLAB code for a multilayered sphere. OSA Continuum, 2020, 3, 2290.	1.8	24
35	Inward and outward integral equations and the KKR method for photons. Journal of Physics Condensed Matter, 1994, 6, 171-182.	0.7	20
36	Resonance-induced effects in photonic crystals. Journal of Physics Condensed Matter, 1999, 11, 2503-2512.	0.7	15

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37	Superconvergent Representation of the Gerstenâ€™Nitzan and Fordâ€™Weber Nonradiative Rates. Journal of Physical Chemistry C, 2011, 115, 19546-19556.	1.5	15
38	Electron mean-free path in metal-coated nanowires. Journal of the Optical Society of America B: Optical Physics, 2011, 28, 1130.	0.9	15
39	Electromagnetic energy in multilayered spherical particles. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2019, 36, 1591.	0.8	15
40	Localized Resonances of Composite Particles. Journal of Physical Chemistry C, 2009, 113, 21604-21610.	1.5	12
41	Extraordinary Fluorescence Enhancement in Metal-Dielectric Coreâ€™Shell Nanoparticles. Journal of Physical Chemistry Letters, 2021, 12, 6425-6430.	2.1	12
42	The Aharonov-Casher theorem and the axial anomaly in the Aharonov-Bohm potential. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1995, 358, 305-311.	1.5	10
43	On the Computation of the Free-Space Doubly-Periodic Green's Function of the Three-Dimensional Helmholtz Equation. Journal of Electromagnetic Waves and Applications, 2002, 16, 457-465.	1.0	10
44	Reflectivity of metallodielectric photonic glasses. Physical Review B, 2004, 69, .	1.1	10
45	Generalized Rabi models: Diagonalization in the spin subspace and differential operators of Dunkl type. Europhysics Letters, 2016, 113, 50004.	0.7	10
46	Remarkable Predictive Power of the Modified Long Wavelength Approximation. Journal of Physical Chemistry C, 2021, 125, 1963-1971.	1.5	10
47	Novel summability methods generalizing the Borel method. European Physical Journal D, 1990, 40, 705-726.	0.4	9
48	Summability method for a Horn-Shaped region. Communications in Mathematical Physics, 1990, 133, 369-382.	1.0	9
49	On-shell T-matrices in multiple scattering. Physics Letters, Section A: General, Atomic and Solid State Physics, 1997, 235, 195-199.	0.9	9
50	Comparing photonic band structure calculation methods for diamond and pyrochlore crystals. Optics Express, 2009, 17, 6952.	1.7	9
51	Comment on "Relation between Persistent Currents and the Scattering Matrix". Physical Review Letters, 1995, 74, 828-828.	2.9	8
52	Haydockâ€™s recursive solution of self-adjoint problems. Discrete spectrum. Annals of Physics, 2014, 351, 960-974.	1.0	8
53	Absorption in periodic layered structures. Synthetic Metals, 2001, 116, 481-484.	2.1	7
54	On beautiful analytic structure of the S-matrix. New Journal of Physics, 2019, 21, 103035.	1.2	6

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55	Harnessing superdirectivity in dielectric spherical multilayer antennas. <i>Physical Review B</i> , 2021, 104, .	1.1	6
56	Quantum models with spectrum generated by the flows of polynomial zeros. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2014, 47, 495204.	0.7	5
57	Constraint polynomial approach: an alternative to the functional Bethe Ansatz method?. <i>European Physical Journal Plus</i> , 2020, 135, 1.	1.2	5
58	Intriguing branching of the maximum position of the absorption cross section in Mie theory explained. <i>Optics Letters</i> , 2020, 45, 4056.	1.7	5
59	Three-dimensional silica-gold core-shell photonic crystal: linear reflection and ultrafast nonlinear optical properties. , 2004, , .		4
60	On the Heisenberg condition in the presence of redundant poles of the S-matrix. <i>Europhysics Letters</i> , 2019, 126, 30003.	0.7	4
61	Strong asymptotic conditions (Short guide to using summability methods). <i>European Physical Journal D</i> , 1992, 42, 753-763.	0.4	3
62	Comment on "New analytic solution of Schrödinger's equation" by Eleuch H. et al.. <i>Europhysics Letters</i> , 2017, 117, 40001.	0.7	3
63	THE SINGLE-PARTICLE DENSITY OF STATES AND THE RESONANCE IN THE AHARONOVâ€ˆBOHM POTENTIAL. <i>Modern Physics Letters B</i> , 1995, 09, 1407-1417.	1.0	2
64	A unified treatment of polynomial solutions and constraint polynomials of the Rabi models. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2018, 51, 295201.	0.7	2
65	Analytic continuation by means of the methods of divergent series. <i>Czechoslovak Mathematical Journal</i> , 1990, 40, 200-212.	0.3	2
66	Aspect ratio analysis for ground states of bosons in anisotropic traps. <i>Journal of Research of the National Institute of Standards and Technology</i> , 1996, 101, 567.	0.4	2
67	Aspect ratio analysis for ground states of bosons in anisotropic traps. <i>European Physical Journal D</i> , 1996, 46, 549-550.	0.4	1
68	ON INDICES OF THE DIRAC OPERATOR IN A NON-FREDHOLM CASE. <i>Modern Physics Letters A</i> , 1996, 11, 979-986.	0.5	1
69	Critical exponent of the localization length for the symplectic case. <i>Journal of Physics A</i> , 1996, 29, 289-294.	1.6	1
70	A simple formula for the L-gap width of a face-centred cubic photonic crystal. <i>Journal of Optics</i> , 1999, 1, 471-475.	1.5	1
71	Photonic Crystals at Near-Infrared and Optical Wavelengths. <i>Materials Research Society Symposia Proceedings</i> , 2001, 708, 751.	0.1	1
72	On uniqueness of Heineâ€ˆStieltjes polynomials for second order finite-difference equations. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2015, 48, 415201.	0.7	1

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73	Is There a Proper Figure of Merit for a Plasmonic Structure Involved in Metal-Enhanced Fluorescence?. Plasmonics, 2022, 17, 1091-1094.	1.8	1
74	ANGULAR MOMENTA IN A PLANAR FIELD THEORY. Modern Physics Letters A, 1991, 06, 137-141.	0.5	0
75	UPPER AND LOWER BOUNDS ON THE PARTITION FUNCTION OF THE HOFSTADTER MODEL. Modern Physics Letters B, 1996, 10, 409-416.	1.0	0
76	Comments on "Differential cross-section for Aharonov-Bohm effect with nonstandard boundary conditions". Europhysics Letters, 1999, 47, 273-274.	0.7	0
77	Photonic Crystals at Near-Infrared and Optical Wavelengths. Materials Research Society Symposia Proceedings, 2001, 694, 1.	0.1	0
78	Photonic Crystals at Near-Infrared and Optical Wavelengths. Materials Research Society Symposia Proceedings, 2001, 707, 751.	0.1	0
79	Photonic crystals with small metal inclusions. , 2003, 5036, 407.		0
80	Optical simulation of multi-dimensional nonlinear defect states with planar waveguide arrays. , 2016, , .		0
81	Experimental realization of exact mapping from multi-dimensional to planar micro-photonic lattices. , 2017, , .		0
82	Towards Complete Photonic Band Gap Structures Below Infrared Wavelengths. , 2001, , 373-382.		0
83	Optical Simulation of Nonlinear Twisted-Ring Defect States with Planar Waveguide Arrays. , 2016, , .		0
84	Experimental realization of high dimensional synthetic lattices in planar photonic structures. , 2018, , .		0
85	Excitation of a homogeneous dielectric sphere by a point electric dipole. Journal of Physics: Conference Series, 2021, 2015, 012043.	0.3	0
86	Metal-enhanced fluorescence: More than we thought. , 2021, , .		0