Alexander Baev

List of Publications by Year in descending order

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62 papers	2,765 citations	257450 24 h-index	175258 52 g-index
62 all docs	62 docs citations	62 times ranked	4287 citing authors

#	Article	IF	Citations
1	Pulsed response theory prediction of ZnO nanocluster polarizabilities: A benchmark study. Chemical Physics Letters, 2021, 778, 138746.	2.6	1
2	Organic NIR-II Photoacoustic Agent Utilizing Combined Two-Photon and Excited State Absorption at 1064 nm. ACS Photonics, 2020, 7, 3161-3165.	6.6	17
3	Nonlinear Optical Interactions and Relaxation in 2D Layered Transition Metal Dichalcogenides Probed by Optical and Photoacoustic Z-Scan Methods. ACS Photonics, 2020, 7, 3440-3447.	6.6	34
4	Two-dimensional MXenes: From morphological to optical, electric, and magnetic properties and applications. Physics Reports, 2020, 848, 1-58.	25.6	594
5	Third- and Fifth-Order Nonlinear Optical Response of a TICT/Stilbene Hybrid Chromophore. Journal of Physical Chemistry C, 2020, 124, 5363-5370.	3.1	9
6	Extreme local field enhancement by hybrid epsilon-near-zeroâ€“plasmon mode in thin films of transparent conductive oxides. Optics Letters, 2020, 45, 5744.	3.3	13
7	Dynamically controlling local field enhancement at an epsilon-near-zero/dielectric interface via nonlinearities of an epsilon-near-zero medium. Nanophotonics, 2020, 9, 4831-4837.	6.0	10
8	Toward Single-Organelle Lipidomics in Live Cells. Analytical Chemistry, 2019, 91, 11380-11387.	6.5	20
9	Mechanism of stimulated Mie scattering: Light-induced redistribution of self-assembled nanospheres of two-photon absorbing chromophore. Journal of Chemical Physics, 2019, 151, 104202.	3.0	2
10	Manipulating Nonradiative Decay Channel by Intermolecular Charge Transfer for Exceptionally Improved Photothermal Conversion. ACS Nano, 2019, 13, 12006-12014.	14.6	84
11	Stimuliâ€Responsive Reversible Switching of Intersystem Crossing in Pure Organic Material for Smart Photodynamic Therapy. Angewandte Chemie, 2019, 131, 11222-11228.	2.0	11
12	Stimuliâ€Responsive Reversible Switching of Intersystem Crossing in Pure Organic Material for Smart Photodynamic Therapy. Angewandte Chemie - International Edition, 2019, 58, 11105-11111.	13.8	72
13	Doubly resonant sum frequency spectroscopy of mixed photochromic isomers on surfaces reveals conformation-specific vibronic effects. Journal of Chemical Physics, 2019, 150, 114704.	3.0	20
14	Modeling nanomaterial physical properties: theory and simulation. International Journal of Smart and Nano Materials, 2019, 10, 116-143.	4.2	16
15	Interaction of Structured Light with a Chiral Plasmonic Metasurface: Giant Enhancement of Chiro-Optic Response. ACS Photonics, 2018, 5, 734-740.	6.6	27
16	Interplay between structure and chiral properties of polyfluorene derivatives. Polymer, 2017, 132, 98-105.	3.8	8
17	Halo-substituted azobenzenes adsorbed at Ag(111) and Au(111) interfaces: Structures and optical properties. Physical Review B, 2017, 95, .	3.2	2
18	Chiral polymer photonics. Optical Materials Express, 2017, 7, 2432.	3.0	12

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19	Twisted Thiophene-Based Chromophores with Enhanced Intramolecular Charge Transfer for Cooperative Amplification of Third-Order Optical Nonlinearity. Journal of the American Chemical Society, 2016, 138, 6975-6984.	13.7	102
20	Manipulating Magneto-Optic Properties of a Chiral Polymer by Doping with Stable Organic Biradicals. Nano Letters, 2016, 16, 5451-5455.	9.1	30
21	In-situ second harmonic generation by cancer cell targeting ZnO nanocrystals to effect photodynamic action in subcellular space. Biomaterials, 2016, 104, 78-86.	11.4	25
22	Molecular nonlinear optics: recent advances and applications. Advances in Optics and Photonics, 2016, 8, 328.	25.5	100
23	Radicals from the gas-phase pyrolysis of a lignin model compound: p-coumaryl alcohol. RSC Advances, 2016, 6, 62399-62405.	3.6	11
24	Plasmon-enhanced two-photon-induced isomerization for highly-localized light-based actuation of inorganic/organic interfaces. Nanoscale, 2016, 8, 4194-4202.	5.6	16
25	Metaphotonics: An emerging field with opportunities and challenges. Physics Reports, 2015, 594, 1-60.	25.6	76
26	Cooperative Coupling of Cyanine and Tictoid Twisted Ï€-Systems to Amplify Organic Chromophore Cubic Nonlinearities. Journal of the American Chemical Society, 2015, 137, 4622-4625.	13.7	51
27	Manipulating Nanoscale Interactions in a Polymer Nanocomposite for Chiral Control of Linear and Nonlinear Optical Functions. Advanced Materials, 2014, 26, 1607-1611.	21.0	16
28	Plasmon-Enhanced Metasurfaces for Controlling Optical Polarization. ACS Photonics, 2014, 1, 507-515.	6.6	21
29	Polarimetric zâ€Scan Study of Nonlinear Chirooptic Properties of Chiral Polyfluorene. Advanced Optical Materials, 2013, 1, 763-767.	7.3	16
30	Design and Synthesis of Polymers for Chiral Photonics. Macromolecules, 2013, 46, 7158-7165.	4.8	44
31	Coupled plasmons induce broadband circular dichroism in patternable films of silver nanoparticles with chiral ligands. Nanoscale, 2013, 5, 10550.	5.6	16
32	Nonlinear optical absorption and stimulated Mie scattering in metallic nanoparticle suspensions. Journal of Chemical Physics, 2013, 138, 024202.	3.0	22
33	Dramatic Structural Enhancement of Chirality in Photopatternable Nanocomposites of Chiral Poly(fluoreneâ€altâ€benzothiadiazole) (PFBT) in Achiral SUâ€8 Photoresist. Advanced Functional Materials, 2012, 22, 5074-5080.	14.9	16
34	Twisted Ï€-System Chromophores for All-Optical Switching. Journal of the American Chemical Society, 2011, 133, 6675-6680.	13.7	128
35	Sensitivity Improved Surface Plasmon Resonance Biosensor for Cancer Biomarker Detection Based on Plasmonic Enhancement. ACS Nano, 2011, 5, 4858-4864.	14.6	242
36	Photothermal-reaction-assisted two-photon lithography of silver nanocrystals capped with thermally cleavable ligands. Applied Physics Letters, 2011, 98, .	3.3	14

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37	Scattering and Absorption Cross-Section Spectral Measurements of Gold Nanorods in Water. Journal of Physical Chemistry C, 2010, 114, 2853-2860.	3.1	56
38	Control of Spontaneous Emission of CdSe Nanorods in a Multirefringent Triangular Lattice Photonic Crystal. Journal of Physical Chemistry Letters, 2010, 1, 1437-1441.	4.6	7
39	Chiral Poly(fluorene-alt-benzothiadiazole) (PFBT) and Nanocomposites with Gold Nanoparticles: Plasmonically and Structurally Enhanced Chirality. Journal of the American Chemical Society, 2010, 132, 17346-17348.	13.7	123
40	Novel Pathways for Enhancing Nonlinearity of Organics Utilizing Metal Clusters. Journal of Physical Chemistry A, 2010, 114, 7590-7594.	2.5	17
41	Microscopic cascading of second-order molecular nonlinearity: new design principles for enhancing third-order nonlinearity. Optics Express, 2010, 18, 8713.	3.4	14
42	Large-Area, Near-Infrared (IR) Photonic Crystals with Colloidal Gold Nanoparticles Embedding. ACS Applied Materials & Interfaces, 2010, 2, 1242-1246.	8.0	20
43	Synthesis and nanoparticle encapsulation of 3,5-difuranylvinyl-boradiaza-s-indacenes for near-infrared fluorescence imaging. Journal of Materials Chemistry, 2009, 19, 3181.	6.7	25
44	Nanoparticle enhanced surface plasmon resonance biosensing: Application of gold nanorods. Optics Express, 2009, 17, 19041.	3.4	82
45	Optical nanotrapping using cloaking metamaterial. Physical Review E, 2009, 79, 026607.	2.1	22
46	Free-space excitation of resonant cavities formed from cloaking metamaterial. Journal of Modern Optics, 2009, 56, 523-529.	1.3	12
47	Laser nanotrapping and manipulation of nanoscale objects using subwavelength apertured plasmonic media. Journal of Applied Physics, 2008, 103, 084316.	2.5	8
48	A QUANTUM MECHANICAL â€" ELECTRODYNAMICAL APPROACH TO NONLINEAR PROPERTIES: APPLICATION TO OPTICAL POWER LIMITING WITH PLATINUM-ORGANIC COMPOUNDS. Journal of Nonlinear Optical Physics and Materials, 2007, 16, 157-169.	1.8	3
49	Saturation of multiphoton absorption upon strong and ultrafast infrared laser excitation. Journal of Applied Physics, 2007, 101, 083108.	2.5	37
50	Negative refractivity assisted optical power limiting. Journal of Applied Physics, 2007, 102, 043101.	2.5	8
51	Light-Matter Interaction of Strong Laser Pulses in the Micro-, Nano-, and Pico-second Regimes. Materials Research Society Symposia Proceedings, 2007, 1015, 1.	0.1	0
52	A quantum chemical approach to the design of chiral negative index materials. Optics Express, 2007, 15, 5730.	3.4	50
53	Multi-photon excitation properties of CdSe quantum dots solutions and optical limiting behavior in infrared range. Optics Express, 2007, 15, 12818.	3.4	156
54	Wide dynamic range phase-sensitive surface plasmon resonance biosensor based on measuring the modulation harmonics. Biosensors and Bioelectronics, 2007, 23, 627-632.	10.1	57

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55	Quantum-Classical Modeling of Nonlinear Pulse Propagation in a Dissolved Two-photon Active Chromophore. Journal of Physical Chemistry B, 2006, 110, 5379-5385.	2.6	16
56	Theoretical Simulations of Clamping Levels in Optical Power Limiting. Journal of Physical Chemistry B, 2006, 110, 20912-20916.	2.6	22
57	Experimental and Quantum Chemical Studies of Cooperative Enhancement of Three-Photon Absorption, Optical Limiting, and Stabilization Behaviors in Multibranched and Dendritic Structures. Journal of Physical Chemistry B, 2006, 110, 14604-14610.	2.6	23
58	Ab initio studies of two-photon absorption of some stilbenoid chromophores. Journal of Chemical Physics, 2005, 122, 224309.	3.0	18
59	Quantum Chemical Studies of Three-Photon Absorption of Some Stilbenoid Chromophores. Journal of Physical Chemistry A, 2005, 109, 11037-11042.	2.5	20
60	Bidirectional description of amplified spontaneous emission induced by three-photon absorption. Journal of the Optical Society of America B: Optical Physics, 2005, 22, 385.	2.1	8
61	Optical Limiting Properties of Zinc- and Platinum-Based Organometallic Compounds. Journal of Physical Chemistry A, 2004, 108, 7406-7416.	2.5	32
62	General theory for pulse propagation in two-photon active media. Journal of Chemical Physics, 2002, 117, 6214-6220.	3.0	31