Andrei Naumov

List of Publications by Year
in descending order

108	1,497	304368	414034
papers	citations	22 h-index	32 g-index

115	115	115	507
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Three-dimensional fluorescence nanoscopy of single quantum emitters based on the optics of spiral light beams. Physics-Uspekhi, 2022, 65, 617-626.	0.8	2
2	AFM Characterization of Track-Etched Membranes: Pores Parameters Distribution and Disorder Factor. Applied Sciences (Switzerland), 2022, 12, 1334.	1.3	4
3	Toward single-molecule surface-enhanced Raman scattering with novel type of metasurfaces synthesized by crack-stretching of metallized track-etched membranes. Journal of Chemical Physics, 2022, 156, 034902.	1.2	10
4	Lack of Photon Antibunching Supports Supertrap Model of Photoluminescence Blinking in Perovskite Subâ€Micrometer Crystals. Advanced Optical Materials, 2021, 9, 2001596.	3.6	17
5	Ag-Nanowire Bundles with Gap Hot Spots Synthesized in Track-Etched Membranes as Effective SERS-Substrates. Applied Sciences (Switzerland), 2021, 11, 1375.	1.3	30
6	Microscopic Insight into the Inhomogeneous Broadening of Zero-Phonon Lines of GeV^{â€“} Color Centers in Chemical Vapor Deposition Diamond Films Synthesized from Gaseous Germane. Journal of Physical Chemistry C, 2021, 125, 17774-17785.	1.5	9
7	Single quantum emitters detection with amateur CCD: Comparison to a scientific-grade camera. Optics and Laser Technology, 2021, 143, 107301.	2.2	5
8	Using Epi-Luminescence Microscopy to Visualize and Control the Distribution of Luminophores on a Highly-Developed Surface. Bulletin of the Russian Academy of Sciences: Physics, 2021, 85, 1393-1399.	0.1	3
9	Stochastic superflares of photoluminescence from a single microdiamond with germanium-vacancy color centers: A general phenomenon or a unique observation. Physical Review B, 2020, 102, .	1.1	4
10	Electron-phonon interaction in colloidal CdSe quantum dots embedded in different solid matrices. Journal of Physics: Conference Series, 2020, 1461, 012114.	0.3	4
11	Effect of Concentration on the Spectralâ€“Luminescent Properties of Quantum Dots in Colloidal Solutions. Bulletin of the Russian Academy of Sciences: Physics, 2020, 84, 40-43.	0.1	12
12	Effect of Identical Sets of Structural Elements of Ï€-Conjugated Molecules on the Parameters of Intra- and Intermolecular Interaction. Bulletin of the Russian Academy of Sciences: Physics, 2020, 84, 272-280.	0.1	1
13	Study of Local Fields of Dendrite Nanostructures in Hot Spots Formed on SERS-Active Substrates Produced via Template-Assisted Synthesis. Bulletin of the Russian Academy of Sciences: Physics, 2020, 84, 1465-1468.	0.1	17
14	Microrefractometry and Mapping of the Local Fields by Multiparameter Fluorescence Nanoscopy of Single Molecules and Quantum Dots. , 2020, , .		0
15	Combined photon-echo, luminescence and Raman spectroscopies of layered ensembles of colloidal quantum dots. Laser Physics, 2019, 29, 124009.	0.6	32
16	Contribution of electron-phonon coupling to the luminescence spectra of single colloidal quantum dots. Journal of Chemical Physics, 2019, 151, 174710.	1.2	9
17	Characterization of Dielectric Solids with Single Quantum Emitters: From Measuring at the Nano-Scale to Mapping at Micro- and Macro-Level. , 2019, , .		0
18	Dispersion of Lifetimes of Excited States of Single Molecules in Organic Matrices at Ultralow Temperatures. Journal of Experimental and Theoretical Physics, 2019, 128, 655-663.	0.2	8

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19	Multifunctional far-field luminescence nanoscope for studying single molecules and quantum dots (50th anniversary of the Institute of Spectroscopy, Russian Academy of Sciences). Physics-Uspekhi, 2019, 62, 294-303.	0.8	27
20	Analysis of the Temperature Dependence of the Exciton Luminescence Spectra of Cadmium Selenide Quantum Dots Grown in a Liquid Crystal Matrix. Optics and Spectroscopy (English Translation of) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	0.2	2
21	Direct Observation of a Quasilocalized Low-Frequency Vibrational Mode in the Fluorescence Excitation Spectrum of a Single Impurity Molecule in a Polymer Matrix. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2019, 126, 44-48.	0.2	3
22	Ultrafast Dynamics in Quantum Dot Doped Nanocomposites at Low Temperatures: Study by Means of Site-Selective Spectroscopy. , 2019, , .		0
23	Improving the Energy Efficiency of Diffraction Optical Elements for 3D Nanoscopy. Bulletin of the Russian Academy of Sciences: Physics, 2019, 83, 1453-1458.	0.1	4
24	Incoherent Photon Echo in an Inhomogeneous Ensemble of Semiconductor Colloidal Quantum Dots at Low Temperatures. Bulletin of the Lebedev Physics Institute, 2018, 45, 91-94.	0.1	19
25	XIII International Conference on Hole Burning, Single Molecule, and Related Spectroscopies: Science and Applications (HBSM-2018): preface. EPJ Web of Conferences, 2018, 190, 00001.	0.1	0
26	Structural and time-domain peculiarities of the fluorescence excitation spectra of single Mg-TAP in a polymer at low temperatures. EPJ Web of Conferences, 2018, 190, 04019.	0.1	0
27	The study of a new family of phase masks for three-dimensional fluorescence nanoscopy. EPJ Web of Conferences, 2018, 190, 04007.	0.1	0
28	Measuring Fluctuations in the Intensity of a Single Point-Like Luminescence Emitter: Artifacts in Processing Microscopic Images. Bulletin of the Russian Academy of Sciences: Physics, 2018, 82, 1482-1486.	0.1	3
29	Low-temperature dynamics in a dye-doped polymer: correspondence between the data obtained by photon echo and single molecule spectroscopy. EPJ Web of Conferences, 2018, 190, 04008.	0.1	0
30	Local and macroscopic characterization with single molecules and single quantum emitters. EPJ Web of Conferences, 2018, 190, 03002.	0.1	0
31	Fluorescence Imaging for Ultrafiltration of Individual Nanoparticles from a Colloidal Solution in Track Membranes. Journal of Applied Spectroscopy, 2018, 85, 916-922.	0.3	11
32	A Two-Pulse Incoherent Photon Echo in a Thin Layer of CdSe/CdS/ZnS Quantum Dots at a Cryogenic Temperature. Bulletin of the Russian Academy of Sciences: Physics, 2018, 82, 1478-1481.	0.1	20
33	Spontaneous transitions to enhanced fluorescence for GeV centers in a single microcrystalline diamond. EPJ Web of Conferences, 2018, 190, 04012.	0.1	0
34	Luminescence Microscopy of Single Quantum Dot Pairs with Nanometer Spatial Resolution. JETP Letters, 2018, 108, 30-37.	0.4	15
35	The Hough Transform as a Basis for Image Recognition and Fluorescent Nanoparticle Tracking. Bulletin of the Russian Academy of Sciences: Physics, 2018, 82, 1034-1037.	0.1	2
36	Micro-Refractometry and Local-Field Mapping with Single Molecules. Nano Letters, 2018, 18, 6129-6134.	4.5	31

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37	Wide-Range Spectral Diffusion in Single Mg-Tetraazaporphyrin Molecules in a Polymer Matrix at Cryogenic Temperatures. JETP Letters, 2018, 107, 406-411.	0.4	6
38	Spectroscopy of single organic dye-molecules and semiconductor quantum dots: basic aspects and applications in nanoscopy. EPJ Web of Conferences, 2017, 132, 01009.	0.1	1
39	Revisiting the combined photon echo and single-molecule studies of low-temperature dynamics in a dye-doped polymer. Physica Status Solidi - Rapid Research Letters, 2017, 11, 1600414.	1.2	19
40	Russianâ€“British Symposium on Quantum Technologies. Quantum Electronics, 2017, 47, 777-777.	0.3	0
41	Photon echo in the ensemble of semiconductor quantum dots spread on a glass substrate. Journal of Physics: Conference Series, 2017, 859, 012010.	0.3	19
42	Preparation and optical characterization of nanocomposites with semiconductor colloidal quantum dots. Bulletin of the Russian Academy of Sciences: Physics, 2017, 81, 1396-1400.	0.1	16
43	New methods of statistical processing of single-molecule spectromicroscopy data for mapping of local fields and effective indices of refraction in the layer of a host matrix. EPJ Web of Conferences, 2017, 132, 03008.	0.1	0
44	Combined analysis of the temperature dependences of the fluorescence spectra and images of single molecules in polymer films. EPJ Web of Conferences, 2017, 161, 03001.	0.1	0
45	Auger Ionization and Tunneling Neutralization of Single CdSe/ZnS Nanocrystals Revealed by Excitation Intensity Variation. Journal of Physical Chemistry C, 2016, 120, 22004-22011.	1.5	22
46	Spatially-resolved luminescence spectroscopy of CdSe quantum dots synthesized in ionic liquid crystal matrices. Journal of Luminescence, 2016, 169, 799-803.	1.5	20
47	Looking at a blinking quantum emitter through time slots: The effect of blind times. Physical Review E, 2015, 92, 032102.	0.8	20
48	Local-Field Effects in the Zero-Phonon Spectral Lines of Single Impurity Molecules in Solid Matrices at Low Temperatures. EPJ Web of Conferences, 2015, 103, 05001.	0.1	1
49	Stable Luminescence of Single Quantum Emitters: Applications in Quantum Optics. EPJ Web of Conferences, 2015, 103, 05004.	0.1	0
50	Temperature Dependences of Single Dye-Molecules Zero-Phonon Line Widths in a Broad Range of Low Temperatures. EPJ Web of Conferences, 2015, 103, 05002.	0.1	1
51	Super-Resolution Definition of Coordinates of Single Semiconductor Nanocrystal (Quantum Dot): Luminescence Intensity Dependence. EPJ Web of Conferences, 2015, 103, 05003.	0.1	4
52	Quantum optics, molecular spectroscopy and low-temperature spectroscopy: general discussion. Faraday Discussions, 2015, 184, 275-303.	1.6	13
53	Single-molecule spectromicroscopy: a route towards sub-wavelength refractometry. Faraday Discussions, 2015, 184, 263-274.	1.6	18
54	Fluorescence microscopy and spectroscopy of subsurface layer dynamics of polymers with nanometer resolution in the axial direction. Faraday Discussions, 2015, 184, 237-249.	1.6	3

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55	Two Mechanisms of Fluorescence Intermittency in Single Core/Shell Quantum Dot. Journal of Physical Chemistry C, 2015, 119, 22646-22652.	1.5	33
56	Photon echoes in an impurity polymer: New data on the low-temperature processes of phase relaxation and their relationship to the broadening of zero-phonon lines of single molecules. Bulletin of the Russian Academy of Sciences: Physics, 2014, 78, 1254-1259.	0.1	16
57	Low temperature spectral dynamics of single molecules in ultrathin polymer films. Journal of Chemical Physics, 2014, 140, 204907.	1.2	4
58	Dyes characterization for multi-color nanodiagnostics by phonon-less optical reconstruction single-molecule spectromicroscopy. Journal of Luminescence, 2014, 152, 15-22.	1.5	25
59	Laser selective spectromicroscopy of myriad single molecules: tool for far-field multicolour materials nanodiagnostics. European Physical Journal D, 2014, 68, 1.	0.6	46
60	Nonergodicity in long-term spectral dynamics of single dye molecules in the low-temperature polymer and organic glass. Laser Physics, 2014, 24, 094001.	0.6	2
61	Manifestation of tunneling TLS dynamics of a polymer matrix in single-molecule fluorescence blinking. Bulletin of the Russian Academy of Sciences: Physics, 2014, 78, 184-188.	0.1	1
62	A luminescence visualizer for exact convergence of laser beams in photon-echo spectroscopy, four-wave mixing, and related techniques. Optics and Spectroscopy (English Translation of Optika I) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	0.8	16
63	Observation of structural relaxations in disordered solid media via spectral histories of single impurity molecules. Physics of the Solid State, 2013, 55, 710-719.	0.2	8
64	Low-temperature spectroscopy of organic molecules in solid matrices: from the Shpol'skii effect to laser luminescent spectromicroscopy for all effectively emitting single molecules. Physics-Uspekhi, 2013, 56, 605-622.	0.8	89
65	A tool for alignment of multiple laser beams in pumpâ€“probe experiments. Measurement Science and Technology, 2013, 24, 027002.	1.4	17
66	Moments distributions of single dye molecule spectra in a low-temperature polymer: Analysis of system ergodicity. Journal of Physics: Conference Series, 2013, 478, 012005.	0.3	1
67	Theoretical modeling of single-molecule fluorescence with complicated photon statistics. Physical Review A, 2012, 86, .	1.0	10
68	Spectrally resolved analysis of fluorescence blinking of single dye molecules in polymers at low temperatures. Journal of Chemical Physics, 2012, 137, 194903.	1.2	17
69	Low-temperature dynamics in amorphous polymers and low-molecular-weight glassesâ€”what is the difference?. Physical Chemistry Chemical Physics, 2011, 13, 1843-1848.	1.3	29
70	Impurity spectroscopy at its ultimate limit: relation between bulk spectrum, inhomogeneous broadening, and local disorder by spectroscopy of (nearly) all individual dopant molecules in solids. Physical Chemistry Chemical Physics, 2011, 13, 1734-1742.	1.3	27
71	Structural relaxations in disordered solids below Tg: Study by thermal-cycling single-molecule spectroscopy. Journal of Non-Crystalline Solids, 2011, 357, 466-471.	1.5	3
72	Orthoâ€Dichlorobenzene Doped with Terryleneâ€”a Highly Photoâ€Stable Singleâ€Molecule System Promising for Photonics Applications. ChemPhysChem, 2010, 11, 182-187.	1.0	30

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73	Frequency dependence of the quadratic electron-phonon coupling constant in a polymer glass: Direct measurement by single-molecule spectroscopy. Physical Review B, 2009, 79, .	1.1	9
74	On the 40th anniversary of the Institute of Spectroscopy of the Russian Academy of Sciences (Scientific session of the Physical Sciences Division of the Russian Academy of Sciences, 8 October) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5		
75	Effect of impurity molecules on the low-temperature vibrational dynamics of polyisobutylene: Investigation by single-molecule spectroscopy. Journal of Chemical Physics, 2009, 130, 184507.	1.2	8
76	Farâ€Field Nanodiagnostics of Solids with Visible Light by Spectrally Selective Imaging. Angewandte Chemie - International Edition, 2009, 48, 9747-9750.	7.2	32
77	Single molecules as spectral nanoprobes for the diagnostics of dynamic processes in solid media. Physics-Uspekhi, 2009, 52, .	0.8	16
78	Do impurity chromophores affect the tunneling dynamics of an amorphous polymer? Investigation by single-molecule spectroscopy. Molecular Physics, 2009, 107, 1943-1953.	0.8	1
79	Density of vibrational states in amorphous solid media: Measurement by single-molecule spectroscopy. Bulletin of the Russian Academy of Sciences: Physics, 2008, 72, 708-711.	0.1	5
80	Participation of oxygen in the bacterial transformation of 2,4,6-trinitrotoluene. Biochemistry (Moscow), 2008, 73, 463-469.	0.7	4
81	Local vibrations in disordered solids studied via single-molecule spectroscopy: Comparison with neutron, nuclear, Raman scattering, and photon echo data. Physical Review B, 2008, 77, .	1.1	32
82	Does the Standard Model of Low-Temperature Glass Dynamics Describe a Real Glass?. Physical Review Letters, 2007, 98, 145501.	2.9	35
83	Isotope effect in the linewidth distribution of single-molecule spectra in doped toluene at 2K. Journal of Luminescence, 2007, 127, 213-217.	1.5	23
84	Experimental Evidence of the Local Character of Vibrations Constituting the Boson Peak in Amorphous Solids. Physical Review Letters, 2006, 97, 185501.	2.9	40
85	Evaluation of parameters of intramolecular interaction from absorption and fluorescence spectra of substituted arylpolyene with poor resolved vibrational structure. Journal of Luminescence, 2005, 111, 37-45.	1.5	13
86	Study of Vibronic Interactions in Impurity Centers by Conjugate Fluorescence and Absorption Spectra with a Poorly Resolved Vibrational Structure. Optics and Spectroscopy (English Translation of Optika) Tj ETQq0 0 0 rgBT /Overlock 10 Tf		
87	Statistical Analysis of Spectra of Single Impurity Molecules and Dynamics of Disordered Solids: I. Distributions of Linewidths, Moments, and Cumulants. Optics and Spectroscopy (English Translation) Tj ETQq1 1 0.784314 rgBT /Ove		
88	Statistical Analysis of Spectra of Single Impurity Molecules and Dynamics of Disordered Solids: II. Manifestation of Interaction of Two-Level Systems with Impurity Molecules at Different Distances. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2005, 98, 747.	0.2	8
89	Dispersion of the local parameters of quasilocalized low-frequency vibrational modes in a low-temperature glass: Direct observation via single-molecule spectroscopy. Journal of Chemical Physics, 2005, 122, 244705.	1.2	20
90	Quasi-localized low-frequency vibrational modes of disordered solids I.ÂStudy by photon echo. Physica Status Solidi (B): Basic Research, 2004, 241, 3480-3486.	0.7	18

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91	Quasi-localized low-frequency vibrational modes of disordered solids II. Study by single-molecule spectroscopy. Physica Status Solidi (B): Basic Research, 2004, 241, 3487-3492.	0.7	20
92	Dynamics of amorphous polymers in the temperature region 2â€“ where the standard model of low-temperature glasses begin to fail: studies by single molecule spectroscopy and comparison with photon echo data. Journal of Luminescence, 2004, 107, 287-297.	1.5	13
93	Experimental evidence for LÃ©vy statistics in single-molecule spectroscopy in a low-temperature glassâ€“manifestation of long-range interactions. Journal of Luminescence, 2004, 107, 21-31.	1.5	9
94	Optical dephasing in solid toluene activated by octaethylporphine zinc. Physics of the Solid State, 2003, 45, 224-230.	0.2	4
95	Low-temperature dynamics of amorphous polymers and evolution over time of spectra of single impurity molecules: I. Experiment. Optics and Spectroscopy (English Translation of Optika I) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf	0.7	10
96	Low-temperature dynamics of amorphous polymers and evolution over time of spectra of single impurity molecules: II. Model calculations and analysis of results. Optics and Spectroscopy (English) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	0.7	12
97	Modified Model of Photon Echoes in Low-Temperature Glasses:â€‰ Effect of Minimal Distance between Two-Level Systems and Chromophore. Journal of Physical Chemistry B, 2003, 107, 2054-2060.	1.2	1
98	LÃ©vy Statistics for Random Single-Molecule Line Shapes in a Glass. Physical Review Letters, 2003, 91, 075502.	2.9	51
99	Dynamics of a doped polymer at temperatures where the two-level system model of glasses fails: Study by single-molecule spectroscopy. Journal of Chemical Physics, 2003, 119, 6296-6301.	1.2	27
100	Thermal activation of two-level systems in a polymer glass as studied with single-molecule spectroscopy. Journal of Chemical Physics, 2003, 119, 3836-3839.	1.2	10
101	Moments of single-molecule spectra in low-temperature glasses: Measurements and model calculations. Journal of Chemical Physics, 2002, 116, 8132-8138.	1.2	30
102	Optical dephasing in doped organic glasses over a wide (0.35â€“100 K) temperature range: Solid toluene doped with Znâ€“octaethylporphine. Journal of Chemical Physics, 2002, 116, 8959-8965.	1.2	11
103	Fluorescence spectra of some cross-conjugate ketones: Experiment and calculations based on the model of two-well adiabatic potentials. Optics and Spectroscopy (English Translation of Optika I) Tj ETQq1 1 0.784314 rgBT /Overlock	0.7	1
104	Minimal distance between chromophore and two-level systems in amorphous solids: effect on photon echo and single molecule spectroscopy data. Journal of Luminescence, 2002, 98, 63-74.	1.5	3
105	Distributions of moments of single-molecule spectral lines and the dynamics of amorphous solids. Physical Review B, 2001, 63, .	1.1	42
106	Luminescence and absorption spectra of polyatomic molecules subjected to conformational transitions. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2001, 91, 704-710.	0.2	6
107	Nonexponential two-pulse photon echo decay in amorphous solids at low temperatures. Journal of Luminescence, 2000, 86, 273-278.	1.5	7
108	Photon echoes in doped organic amorphous systems over a wide (0.35â€“50K) temperature range. Journal of Luminescence, 2000, 86, 265-272.	1.5	45