

Yurii V Orlovskii

List of Publications by Year in descending order

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80
papers

1,056
citations

393982

19
h-index

454577

30
g-index

80
all docs

80
docs citations

80
times ranked

1037
citing authors

#	ARTICLE	IF	CITATIONS
1	Neodymium-doped nanoparticles for infrared fluorescence bioimaging: The role of the host. Journal of Applied Physics, 2015, 118, .	1.1	102
2	Multiple-phonon nonradiative relaxation: Experimental rates in fluoride crystals doped with Er ³⁺ and Nd ³⁺ ions and a theoretical model. Physical Review B, 1994, 49, 3821-3830.	1.1	60
3	Optomagnetic Nanoplatforms for In Situ Controlled Hyperthermia. Advanced Functional Materials, 2018, 28, 1704434.	7.8	59
4	Continuously tunable cw lasing near 2.75 μ m in diode-pumped Er ³⁺ : SrF ₂ and Er ³⁺ : CaF ₂ crystals. Quantum Electronics, 2006, 36, 591-594.	0.3	49
5	Spontaneous emission in dielectric nanoparticles. JETP Letters, 2008, 88, 12-18.	0.4	48
6	Nonlinear mechanism of multiphonon relaxation of the energy of electronic excitation in optical crystals doped with rare-earth ions. Optical Materials, 1995, 4, 583-595.	1.7	39
7	Phase composition and morphology of nanoparticles of yttrium orthophosphates synthesized by microwave-hydrothermal treatment: The influence of synthetic conditions. Journal of Alloys and Compounds, 2015, 639, 415-421.	2.8	39
8	Subtissue Imaging and Thermal Monitoring of Gold Nanorods through Joint Encapsulation with Nd ³⁺ -Doped Infrared-Emitting Nanoparticles. Small, 2016, 12, 5394-5400.	5.2	37
9	Multiphonon relaxation rates measurements and theoretical calculations in the frame of non-linear and non-Coulomb model of a rare-earth ion-ligand interaction. Journal of Luminescence, 1996, 68, 241-253.	1.5	33
10	Fluorescence line narrowing (FLN) and site-selective fluorescence decay of Nd ³⁺ centers in CaF ₂ . Journal of Luminescence, 1999, 82, 251-258.	1.5	32
11	Multiphonon nonradiative relaxation from high-lying levels of Nd ³⁺ ions in fluoride and oxide laser materials. Journal of Luminescence, 1992, 53, 19-23.	1.5	31
12	An energy transfer kinetic probe for OH-quenchers in the Nd ³⁺ :YPO ₄ nanocrystals suitable for imaging in the biological tissue transparency window. Physical Chemistry Chemical Physics, 2014, 16, 26806-26815.	1.3	28
13	Pulsed mid-IR Cr ²⁺ :ZnS and Cr ²⁺ :ZnSe lasers pumped by Raman-shifted Q-switched neodymium lasers. Quantum Electronics, 2004, 34, 8-14.	0.3	27
14	Oxysulfide optical ceramics doped by Nd ³⁺ for one micron lasing. Journal of Luminescence, 2007, 125, 201-215.	1.5	25
15	Mid-IR transitions of trivalent neodymium in low phonon laser crystals. Optical Materials, 2007, 29, 1115-1128.	1.7	25
16	Fluctuation kinetics of fluorescence hopping quenching in the Nd ³⁺ :Y ₂ O ₃ spherical nanoparticles. Journal of Luminescence, 2013, 139, 91-97.	1.5	25
17	High-order multipole interaction in nanosecond Nd ³⁺ -Nd energy transfer. Journal of Luminescence, 1996, 69, 187-202.	1.5	20
18	Multiphonon relaxation of mid-IR transitions of rare-earth ions in the crystals with fluorite structure. Journal of Luminescence, 2001, 94-95, 791-795.	1.5	20

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19	Comparison of concentration dependence of relative fluorescence quantum yield and brightness in first biological window of wavelengths for aqueous colloidal solutions of Nd ³⁺ : LaF ₃ and Nd ³⁺ : KY ₃ F ₁₀ nanocrystals synthesized by microwave-hydrothermal treatment. <i>Journal of Alloys and Compounds</i> , 2018, 756, 182-192.	2.8	20
20	Fluorescence quenching of the Nd ³⁺ ions in different optical centers in fluorite-type crystals. <i>Journal of Luminescence</i> , 1998, 76-77, 371-376.	1.5	19
21	Relation of Crystallinity and Fluorescent Properties of LaF ₃ :Nd ³⁺ Nanoparticles Synthesized with Different Water-Based Techniques. <i>ChemistrySelect</i> , 2017, 2, 4874-4881.	0.7	19
22	Fluorescence quenching mechanism for water-dispersible Nd ³⁺ :KYF ₄ nanoparticles synthesized by microwave-hydrothermal technique. <i>Journal of Luminescence</i> , 2016, 169, 722-727.	1.5	17
23	Vacuum ultraviolet spectroscopic analysis of Ce ³⁺ -doped hexagonal YPO ₄ ·0.8H ₂ O based on exchange charge model. <i>Journal of Luminescence</i> , 2014, 152, 70-74.	1.5	15
24	Concentration self-quenching of luminescence in crystal matrices activated by Nd ³⁺ ions: Theory and experiment. <i>Journal of Luminescence</i> , 2018, 198, 138-145.	1.5	15
25	Temperature dependencies of excited states lifetimes and relaxation rates of 3 ⁵ phonon (4 ⁶ 1/4m) transitions in the YAG, LuAG and YLF crystals doped with trivalent holmium, thulium, and erbium. <i>Optical Materials</i> , 2002, 18, 355-365.	1.7	14
26	Approaches to contactless optical thermometer in the NIR spectral range based on Nd ³⁺ doped crystalline nanoparticles. <i>Journal of Luminescence</i> , 2017, 183, 478-485.	1.5	14
27	Rare earth ions doped mixed crystals for fast quantum computers with optical frequency qubits. <i>Optics Communications</i> , 2021, 485, 126693.	1.0	14
28	Multiphonon relaxation of the electronic excitation energy of rare-earth ions in laser crystals. <i>Journal of Luminescence</i> , 1998, 76-77, 586-590.	1.5	13
29	Spontaneous and induced emission in dielectric nanoparticles. <i>Nanotechnologies in Russia</i> , 2008, 3, 551-559.	0.7	13
30	NIR fluorescence quenching by OH acceptors in the Nd ³⁺ doped KY ₃ F ₁₀ nanoparticles synthesized by microwave-hydrothermal treatment. <i>Journal of Alloys and Compounds</i> , 2016, 661, 312-321.	2.8	13
31	Nonradiative relaxation and inhomogeneous splitting of aggregated optical centers in the Nd ³⁺ -doped CaF ₂ and SrF ₂ crystals (FLN and decay study). <i>Journal of Luminescence</i> , 1999, 83-84, 361-366.	1.5	12
32	Kinetics of the direct energy transfer of optical excitation in crystalline nanoparticles: Theory and Monte Carlo computer simulation. <i>Nanotechnologies in Russia</i> , 2009, 4, 722-731.	0.7	12
33	Conversion of the luminescence of laser dyes in opal matrices to stimulated emission. <i>Quantum Electronics</i> , 2008, 38, 665-669.	0.3	11
34	Low-phonon BaF ₂ : Ho ³⁺ , Tm ³⁺ doped crystals for 3.5 ⁴ 1/4m lasing. <i>Optical Materials</i> , 2010, 32, 599-611.	1.7	11
35	Inhomogeneous broadening of the dynamically split Kramers spectral line and up-conversion in the pair and quartet centers in CaF ₂ :Nd ³⁺ . <i>Journal of Luminescence</i> , 2002, 99, 223-236.	1.5	10
36	Fluctuation kinetics of the hopping fluorescence quenching in disordered solid solutions: A theoretical model and experimental evidence. <i>Journal of Luminescence</i> , 2011, 131, 2409-2413.	1.5	9

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37	Testing nanocrystalline CdWO ₄ doped with Yb ³⁺ as a possible down-conversion phosphor. Radiation Measurements, 2016, 90, 329-333.	0.7	9
38	Experimental preparation of entangled Bell's vacuum single exciton and vacuum biexciton states for pair centers of neodymium ions in a crystal. Optics Communications, 2006, 259, 298-303.	1.0	8
39	Dynamic splitting of high-lying excited state of cluster centers in the Nd ³⁺ doped crystals with fluorite structure. Journal of Luminescence, 2001, 94-95, 123-126.	1.5	7
40	Nanosecond fluctuation kinetics of luminescence hopping quenching originated from the 5d ₁ level in the Ce ³⁺ :YPO ₄ ·0.8H ₂ O nanocrystals. Journal of Luminescence, 2014, 145, 774-778.	1.5	6
41	Laser heating of the Y _{1-x} Dy _x PO ₄ nanocrystals. Optical Materials Express, 2015, 5, 1230.	1.6	6
42	Direct nanosecond Nd ³⁺ /Ce nonradiative energy transfer in cerium trifluoride laser crystals. Journal of Luminescence, 2003, 101, 211-218.	1.5	5
43	Optical fluoride nanoceramic. Journal of Optical Technology (A Translation of Opticheski Zhurnal), 2008, 75, 728.	0.2	5
44	Radiative properties of lanthanide and transition metal ions in nanocrystals. Optics and Spectroscopy (English Translation of Optika i Spektroskopiya), 2011, 111, 386-392.	0.2	5
45	Energy transfer probe for the characterization of luminescent photonic crystals morphology. Journal of Luminescence, 2011, 131, 449-452.	1.5	5
46	Impurity fluorescence self-quenching in Nd ³⁺ : Gd ₃ BWO ₉ crystalline powders: Experiment and analysis. Journal of Alloys and Compounds, 2020, 822, 153654.	2.8	5
47	Stable Aqueous Colloidal Solutions of Nd ³⁺ : LaF ₃ Nanoparticles, Promising for Luminescent Bioimaging in the Near-Infrared Spectral Range. Nanomaterials, 2021, 11, 2847.	1.9	5
48	Nature of the transfer of the electronic excitation energy from Cr ³⁺ to rare-earth ions in garnet crystals. Quantum Electronics, 1995, 25, 729-734.	0.3	4
49	Synthesis and study of the properties of K ₂ Y _{1-x} Eu _x Tb _y (MoO ₄)(PO ₄) and K ₂ Y _{1-x-y} Eu _x Tb _y (MoO ₄)(PO ₄) _{1-x-y} (VO ₄) _y solid solutions. Russian Journal of Inorganic Chemistry, 2011, 56, 1943-1950.	0.3	4
50	Novel laser breakdown spectrometer for environmental monitoring. , 1999, 3855, 34.		3
51	Microwave synthesis of monodisperse luminescent Y _{2-x} Eu _x O ₃ powders with spherical particles of predetermined size. Doklady Chemistry, 2010, 435, 289-293.	0.2	3
52	Luminescent properties of doped dielectric nanocrystals. Optics and Spectroscopy (English) Tj ETQq0 0 0 rgBT /Overlock 10 Tj 50 142 T	0.2	3
53	Heating and Cooling Transients in the DyPO ₄ Nanocrystals under Femtosecond Laser Irradiation in the NIR Spectral Range. Physics of Wave Phenomena, 2018, 26, 198-206.	0.3	3
54	NONINVASIVE ESTIMATION OF THE LOCAL TEMPERATURE OF BIOTISSUES HEATING UNDER THE ACTION OF LASER IRRADIATION FROM THE LUMINESCENCE SPECTRA OF Nd ³⁺ IONS. Biomedical Photonics, 2018, 7, 25-36.	0.3	3

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55	Cooperative optical phenomena in praseodymium doped CsCdBr 3. , 2002, , .		2
56	Effect of synthesis conditions of the micro- and mesostructure of monodisperse Y(OH)CO ₃ powders. Doklady Chemistry, 2012, 446, 207-211.	0.2	2
57	Room Temperature Optical Thermometry Based on the Luminescence of the SiV Defects in Diamond. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2019, 126, 59-61.	0.2	2
58	Toward Performance and Applications of Large Area Optical Thermometry Based on the Luminescence of Germanium Vacancy Defects in Diamond Nanocrystals. Physica Status Solidi (A) Applications and Materials Science, 2021, 218, 2000217.	0.8	2
59	Spontaneous and Stimulated Transitions in Impurity Dielectric Nanoparticles. , 0, , .		2
60	VISUALIZATION OF Nd ³⁺ -DOPED LaF ₃ NANOPARTICLES FOR NEAR INFRARED BIOIMAGING VIA UPCONVERSION LUMINESCENCE AT MULTIPHOTON EXCITATION MICROSCOPY. Biomedical Photonics, 2018, 7, 4-12.	0.3	2
61	<title>Laser-induced fluorescence spectrometer based on tunable color center laser for low-impurity-solution diagnostic and analysis</title>. , 1996, , .		1
62	Multiphonon relaxation in fluoride and ternary sulfide laser crystals with neodymium ions. Journal of Experimental and Theoretical Physics, 2008, 106, 661-667.	0.2	1
63	First-principles study of the local structure and crystal field of Yb ²⁺ in sodium and potassium halides. Chinese Physics B, 2012, 21, 037102.	0.7	1
64	Theoretical and experimental modeling of interstitial laser hyperthermia with surface cooling device using Nd ³⁺ -doped nanoparticles. Lasers in Medical Science, 2019, 34, 1421-1431.	1.0	1
65	Analysis of upconversion nanoparticles as an active medium for upconversion light sources. , 2019, , .		1
66	Nature of electron excitation-energy transfer Cr ³⁺ →Tr ³⁺ in garnet crystals. , 1996, 2706, 14.		0
67	<title>Laser-induced fluorescence spectrometer based on solid state tunable color-center laser for heavy metal analysis</title>. , 1999, , .		0
68	Inhomogeneous broadening of the dynamically split Kramers spectral line and up-conversion in the pair and quartet centers in CaF ₂ :Nd ³⁺ . , 2002, , .		0
69	Nanophotonic structures on the basis of the ordered ensembles bacteriorhodopsin-opal matrix-substrate. , 2004, , .		0
70	Bistable response from synthetic opal photonic crystals: schemes of realization. Proceedings of SPIE, 2007, , .	0.8	0
71	Light-controlled band shift in synthetic opals filled with an optically nonlinear dye solution. Quantum Electronics, 2008, 38, 37-40.	0.3	0
72	Nanoscaled Rare-Earth Doped Crystals Heater. , 2014, , .		0

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73	Rare-earth doped nanocrystals as an active medium for terahertz stimulated emission. , 2016, , .		0
74	From near IR to terahertz photon emission in the LaF3 crystals heavily doped by Nd ³⁺ ; the use of the Dicke and the Purcell effects. Journal of Luminescence, 2017, 181, 88-90.	1.5	0
75	On the use of twisted photons for spectroscopy of impurity centers in crystals. Physical Review B, 2018, 97, .	1.1	0
76	Room temperature optical thermometry based on the luminescence of the SiV defects in diamond. EPJ Web of Conferences, 2018, 190, 04024.	0.1	0
77	A Crystal Host Selection for Aqueous Colloidal Luminescent Nanocrystals Doped by Nd ³⁺ Used for Bioimaging in First Biological Window. , 2018, , .		0
78	New Regularity of Multiphonon Relaxation in Rare Earth Doped Laser Crystals. , 2007, , .		0
79	Stimulated emission of laser dyes in opal - like matrix (photonic crystal) under nanosecond pulsed laser excitation. , 2008, , .		0
80	Experimental modeling of local laser hyperthermia using thermosensitive nanoparticles absorbing in NIR. , 2018, , .		0