Alexey Akimov

List of Publications by Year in descending order

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118 papers	3,583 citations	346980 22 h-index	150775 59 g-index
120 all docs	120 docs citations	120 times ranked	4943 citing authors

#	Article	IF	Citations
1	2022 Roadmap on integrated quantum photonics. JPhys Photonics, 2022, 4, 012501.	2.2	152
2	3D nano-printing coupler for silicon nitride suspended waveguide. , 2022, , .		1
3	Investigation of Highâ€Density Nitrogen Vacancy Center Ensembles Created in Electronâ€Irradiated and Vacuumâ€Annealed Deltaâ€Doped Layers. Physica Status Solidi - Rapid Research Letters, 2021, 15, 2000550.	1.2	6
4	Characterizing the temperature dependence of Fano-Feshbach resonances of ultracold polarized thulium. Physical Review A, 2021, 103, .	1.0	6
5	Optimization of the coherence properties of diamond samples with an intermediate concentration of NV centers. Results in Physics, 2021, 21, 103845.	2.0	10
6	Nuclear Spin Gyroscope based on the Nitrogen Vacancy Center in Diamond. Physical Review Letters, 2021, 126, 197702.	2.9	41
7	Optical detection of an ensemble of C centres in diamond and their coherent control by an ensemble of NV centres. Quantum Electronics, 2021, 51, 938-946.	0.3	2
8	Fiber-Optic Quantum Sensors for Applications in Micromagnetics and Thermal Imaging. , 2021, , .		0
9	Magnetic Effect of Dopants on Bright and Dark Excitons in Strongly Confined Mn-Doped CsPbI₃ Quantum Dots. Nano Letters, 2021, 21, 9543-9550.	4.5	12
10	Measurement of the longitudinal relaxation time for the nitrogen nuclear spin in a nitrogen-vacancy colour centre of diamond. Quantum Electronics, 2021, 51, 1144-1147.	0.3	0
11	Machine learning for achieving Bose-Einstein condensation of thulium atoms. Physical Review A, 2020, 102, .	1.0	32
12	Size-dependent dark exciton properties in cesium lead halide perovskite quantum dots. Journal of Chemical Physics, 2020, 153, 184703.	1.2	28
13	The loss spectrum of cold polarized thulium atoms in optical dipole trap at low magnetic fields. AIP Conference Proceedings, 2020, , .	0.3	0
14	On studying the optical properties of NV/SiV color centers in ultrasmall nanodiamonds. AIP Conference Proceedings, 2020, , .	0.3	3
15	Temperature drift rate for nuclear terms of the NV-center ground-state Hamiltonian. Physical Review B, 2020, 102, .	1.1	10
16	Intense Dark Exciton Emission from Strongly Quantum-Confined CsPbBr₃ Nanocrystals. Nano Letters, 2020, 20, 7321-7326.	4.5	53
17	Formation of Multilayered Nanostructures of NV Sites in Single-Crystal CVD Diamond. Technical Physics Letters, 2020, 46, 641-645.	0.2	1
18	Random Matrix Theory Analysis of a Temperature-Related Transformation in Statistics of Fanoâ€“Feshbach Resonances in Thulium Atoms. Entropy, 2020, 22, 1394.	1.1	0

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19	Microwave coherent spectroscopy of ultracold thulium atoms. Physical Review A, 2020, 102, .	1.0	3
20	Circularly polarized microwave antenna for nitrogen vacancy centers in diamond. Review of Scientific Instruments, 2020, 91, 035003.	0.6	12
21	Nanodiamonds with SiV colour centres for quantum technologies. Quantum Electronics, 2020, 50, 299-304.	0.3	5
22	Optical investigation of as-grown NV centers in heavily nitrogen doped delta layers in CVD diamond. Materials Today Communications, 2020, 24, 101019.	0.9	4
23	On investigation as grown NV centers in delta doped layers in diamond. AIP Conference Proceedings, 2020, , .	0.3	1
24	Photonic-Crystal-Fiber Quantum Probes for High-Resolution Thermal Imaging. Physical Review Applied, 2020, 13, .	1.5	9
25	Spatially controlled fabrication of single NV centers in IIa HPHT diamond. Optical Materials Express, 2020, 10, 198.	1.6	20
26	Multimodal Fiber-Optic Quantum Sensing with Defect Centers in Diamond. , 2020, , .		0
27	Compact QED system of single photon emitter coupled to silicon nitride nanobeam. , 2020, , .		0
28	Free-standing silicon nitride nanobeams with an efficient fiber-chip interface for cavity QED. Optical Materials Express, 2020, 10, 3192.	1.6	4
29	Single Silicon Vacancy Centers in 10 nm Diamonds for Quantum Information Applications. ACS Applied Nano Materials, 2019, 2, 4765-4772.	2.4	26
30	Integration of nanodiamonds with NV-centers on optical silicon nitride structures. EPJ Web of Conferences, 2019, 220, 03013.	0.1	0
31	Scalar, tensor, and vector polarizability of Tm atoms in a 532-nm dipole trap. Physical Review A, 2019, 100, .	1.0	11
32	Fiber-Optic Quantum Thermometry with Germanium-Vacancy Centers in Diamond. ACS Photonics, 2019, 6, 1690-1693.	3.2	26
33	Zeeman Spectroscopy of Ultracold Thulium Atoms. Journal of Experimental and Theoretical Physics, 2019, 128, 199-206.	0.2	4
34	Creation of Localized NV Center Ensembles in CVD Diamond by Electron Beam Irradiation. Technical Physics Letters, 2019, 45, 281-284.	0.2	4
35	CMOS compatible nanoantenna-nanodiamond integration. Journal of Physics: Conference Series, 2019, 1410, 012180.	0.3	1
36	Random to Chaotic Statistic Transformation in Low-Field Fano-Feshbach Resonances of Cold Thulium Atoms. Physical Review Letters, 2019, 123, 213402.	2.9	23

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37	Quantum technologies in Russia. Quantum Science and Technology, 2019, 4, 040501.	2.6	24
38	Monoisotopic Ensembles of Silicon-Vacancy Color Centers with Narrow-Line Luminescence in Homoepitaxial Diamond Layers Grown in H₂â€“CH₄â€“^[x]SiH₄ Gas Mixtures (x = 28,) Tj ETQq0 0 0rgBT /Over	3.2	29
39	Compact design of a gallium phosphide nanobeam cavity for coupling to diamond germanium-vacancy centers. Optical Materials Express, 2019, 9, 1678.	1.6	3
40	On investigation of optical and spin properties of NV centers in aggregates of detonation nanodiamonds. AIP Conference Proceedings, 2018, , .	0.3	0
41	Germanium-Vacancy Color Center in Diamond as a Temperature Sensor. ACS Photonics, 2018, 5, 765-770.	3.2	105
42	Microwave Spectroscopy of Ultracold Thulium Atoms. Bulletin of the Lebedev Physics Institute, 2018, 45, 377-380.	0.1	6
43	On-chip controlled placement of nanodiamonds with a nitrogen-vacancy color centers (NV). Journal of Physics: Conference Series, 2018, 1124, 051046.	0.3	2
44	Spin properties of NV centers in high-pressure, high-temperature grown diamond. Journal of Physics Communications, 2018, 2, 115003.	0.5	26
45	Microwave Antenna for Exciting Optically Detected Magnetic Resonance in Diamond NV Centers. Bulletin of the Lebedev Physics Institute, 2018, 45, 237-240.	0.1	10
46	Correction to Germanium-Vacancy Color Center in Diamond as a Temperature Sensor. ACS Photonics, 2018, 5, 4710-4710.	3.2	4
47	3D Uniform Manipulation of NV Centers in Diamond Using a Dielectric Resonator Antenna. JETP Letters, 2018, 108, 588-595.	0.4	13
48	Polarized cold cloud of thulium atom. Journal of Physics B: Atomic, Molecular and Optical Physics, 2018, 51, 165001.	0.6	12
49	Spin-polarized cold cloud of thulium atoms. , 2018, , .		0
50	Tin-vacancy in diamonds for luminescent thermometry. Applied Physics Letters, 2018, 112, .	1.5	58
51	Efficient, uniform, and large-volume microwave magnetic coupling to NV centers in diamond using dielectric resonator antennas. , 2018, , .		1
52	Light-assisted collisions in ultracold Tm atoms. Physical Review A, 2017, 95, .	1.0	13
53	Effect of optical pumping on the thulium absorption spectrum saturation and width. Bulletin of the Lebedev Physics Institute, 2017, 44, 249-253.	0.1	0
54	Dielectric resonator antenna for coupling to NV centers in diamond. AIP Conference Proceedings, 2017, , .	0.3	3

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55	Effect of dipole orientation on Purcell factor for the quantum emitter near silicon nanoparticle. AIP Conference Proceedings, 2017, , .	0.3	0
56	Electron spin contrast of Purcell-enhanced nitrogen-vacancy ensembles in nanodiamonds. Physical Review B, 2017, 96, .	1.1	20
57	Superconducting detector for visible and near-infrared quantum emitters [Invited]. Optical Materials Express, 2017, 7, 513.	1.6	17
58	Single bright NV centers in aggregates of detonation nanodiamonds. Optical Materials Express, 2017, 7, 4038.	1.6	23
59	Towards quantum control of nuclear ¹⁴N spin ensemble associated with NV ensemble in diamond for nuclear enhanced sensing applications. , 2017, , .		0
60	Spin Contrast of Purcell-Enhanced Nitrogen-Vacancy Centers in Diamond. , 2017, , .		0
61	Thulium atom as new platform for quantum simulations and quantum information. , 2016, , .		0
62	Towards light-matter interface for the NV center in diamond. , 2016, , .		0
63	Coupling of single NV center to adiabatically tapered optical single mode fiber. European Physical Journal D, 2016, 70, 1.	0.6	21
64	Toward efficient fiber-based quantum interface (Conference Presentation). , 2016, , .		0
65	Coupling of single NV center to the tapered optical fiber. , 2016, , .		1
66	Growth of CVD diamond nanopillars with imbedded silicon-vacancy color centers. Optical Materials, 2016, 61, 25-29.	1.7	11
67	Detection of 1.14 Î¼m Magnetic Dipole Transition in Ultracold Thulium. EPJ Web of Conferences, 2015, 103, 06002.	0.1	0
68	Measurement of the 5D level polarizabilities in laser cooled Rb atoms. Journal of Physics: Conference Series, 2015, 635, 092121.	0.3	1
69	Laser cooling and trapping of thulium atoms for further investigation of collisional properties. Journal of Physics: Conference Series, 2015, 635, 092117.	0.3	1
70	Observation of Magnetically Induced Trap Loss of Ultracold Thulium Atoms. EPJ Web of Conferences, 2015, 103, 06003.	0.1	0
71	Enhancement of Single-Photon Sources with Metamaterials. , 2015, , 123-148.		2
72	Enhancement of singleâ€‘photon emission from nitrogenâ€‘vacancy centers with TiN/(Al,Sc)N hyperbolic metamaterial. Laser and Photonics Reviews, 2015, 9, 120-127.	4.4	93

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73	Synthesis and doping of microcolumn diamond photoemitters with silicon-vacancy color centers. Bulletin of the Lebedev Physics Institute, 2015, 42, 63-66.	0.1	1
74	Nitrogen-vacancy single-photon emission enhanced with nanophotonic structures (Presentation) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 7		0
75	Measurement of polarizabilities of 5D levels of rubidium in a magnetic trap. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2015, 119, 535-543.	0.2	1
76	Improved measurement of the hyperfine structure of the laser cooling level $$4f^{12}(^3H_6)5d_{5/2}6s^2$$ 4 f 12 (3 H 6) 5 d 5 / 2 6 s 2 $$(J=9/2)$$ (J = 9 / 2) in $${}^{169}_{,,69}{{mathrm {Tm}}}$$ 69 169 Tm. Applied Physics B: Lasers and Optics, 2015, 121, 275-282.	1.1	7
77	Detection of the clock transition (1.14 Î¼m) in ultra-cold thulium atoms. Quantum Electronics, 2015, 45, 482-485.	0.3	11
78	Fabrication of diamond microstub photoemitters with strong photoluminescence of SiV color centers: bottom-up approach. Applied Physics A: Materials Science and Processing, 2015, 118, 17-21.	1.1	19
79	Fiber-optic magnetometry with randomly oriented spins. Optics Letters, 2014, 39, 6755.	1.7	27
80	Measurement of the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mn>5</mml:mn><mml:mi>D</mml:mi></mml:math>-level polarizability in laser-cooled Rb atoms. Physical Review A, 2014, 89, .	1.0	9
81	Single-photon source based on NV center in nanodiamond coupled to TiN-based hyperbolic metamaterial. , 2014, , .		0
82	All-Optical Sensing of a Single-Molecule Electron Spin. Nano Letters, 2014, 14, 6443-6448.	4.5	83
83	Two-stage laser cooling and optical trapping of thulium atoms. Laser Physics, 2014, 24, 074018.	0.6	13
84	Secondary laser cooling and capturing of thulium atoms in traps. Quantum Electronics, 2014, 44, 515-520.	0.3	18
85	Coupling a Single Trapped Atom to a Nanoscale Optical Cavity. Science, 2013, 340, 1202-1205.	6.0	393
86	Collimation of a thulium atomic beam by two-dimensional optical molasses. Quantum Electronics, 2013, 43, 374-378.	0.3	5
87	Towards hybrid quantum systems: Trapping a single atom near a nanoscale solid-state structure. EPJ Web of Conferences, 2013, 57, 03002.	0.1	0
88	Coherent excitation of the 5D5/2level of ultra-cold rubidium atoms with short laser pulses. Quantum Electronics, 2012, 42, 714-720.	0.3	9
89	Tailoring Light-Matter Interaction with a Nanoscale Plasmon Resonator. Physical Review Letters, 2012, 108, 226803.	2.9	127
90	Magnetic trap for thulium atoms. Quantum Electronics, 2011, 41, 765-768.	0.3	6

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91	Laser cooling of thulium atoms. Optics and Spectroscopy (English Translation of Optika I) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf	0.2	6
92	Coherent population trapping resonances in the problem of quantum filtering of light pulses. Bulletin of the Lebedev Physics Institute, 2011, 38, 235-241.	0.1	1
93	Frequency-modulation high-precision spectroscopy of coherent dark resonances. Proceedings of SPIE, 2010, , .	0.8	0
94	Magneto-optical trap for thulium atoms. Physical Review A, 2010, 82, .	1.0	80
95	Sub-doppler laser cooling of thulium atoms in a magneto-optical trap. JETP Letters, 2010, 92, 703-706.	0.4	16
96	Study of the Rabi splitting at the 5P3/2â† 5D5/2,3/2transitions in the87Rb atom upon cascade excitation in a magnetooptical trap. Quantum Electronics, 2010, 40, 139-143.	0.3	4
97	Rigid-Body Molecular Dynamics of Fullerene-Based Nanocars on Metallic Surfaces. Journal of Chemical Theory and Computation, 2010, 6, 2581-2590.	2.3	38
98	Quantum optics with nanoscale surface plasmons. , 2009, , .		0
99	Coherent population trapping resonances in the presence of the frequency-phase noises of an exciting field. Quantum Electronics, 2009, 39, 449-454.	0.3	0
100	Frequency-modulation spectroscopy of coherent dark resonances in 87Rb atoms. Applied Physics B: Lasers and Optics, 2009, 97, 35-46.	1.1	8
101	Near-field electrical detection of optical plasmons and single-plasmon sources. Nature Physics, 2009, 5, 475-479.	6.5	290
102	Resonant interaction of femtosecond radiation with a cloud of cold 87Rb atoms. Journal of Experimental and Theoretical Physics, 2009, 109, 359-369.	0.2	4
103	Zeeman slowing of thulium atoms. Optics Letters, 2009, 34, 2955.	1.7	11
104	The effect of phase noise of bichromatic radiation upon resonances of coherent population trapping. Bulletin of the Lebedev Physics Institute, 2008, 35, 148-155.	0.1	1
105	Possibility of the use of the magnetic field for creating a quantum filter on the D 1 87Rb line. JETP Letters, 2008, 88, 355-359.	0.4	5
106	Study of transitions in thulium atoms in the 410â€“420-nm range for laser cooling. Quantum Electronics, 2008, 38, 961-968.	0.3	2
107	Generation of single optical plasmons in metallic nanowires coupled to quantum dots. Nature, 2007, 450, 402-406.	13.7	1,307
108	Blue laser cooling transitions in Tm I. Applied Physics B: Lasers and Optics, 2007, 89, 589-594.	1.1	21

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109	Coherent bichromatic spectroscopy of Rb vapor with a femtosecond laser. Journal of Raman Spectroscopy, 2006, 37, 712-717.	1.2	6
110	Bichromatic spectroscopy of coherent population trapping resonances with phase-locked fields. Journal of Raman Spectroscopy, 2005, 36, 123-128.	1.2	6
111	Spectroscopy of coherent population trapping with a light source based on a femtosecond laser. Quantum Electronics, 2004, 34, 983-988.	0.3	4
112	Tunable Phase-Coherent Source of the Bichromatic Light Field for the Spectroscopy of Resonances of the Coherent Population Trapping in Rare-Earth Atoms. Journal of Russian Laser Research, 2004, 25, 239-252.	0.3	3
113	Title is missing!. Journal of Russian Laser Research, 2003, 24, 129-142.	0.3	3
114	Spectroscopy of coherent dark resonances in multilevel atoms for the example of samarium vapor. Journal of Experimental and Theoretical Physics, 2003, 96, 629-642.	0.2	12
115	Spectroscopy of coherent dark resonances in samarium. , 2002, , .		0
116	Isotopic shifts and the hyperfine structure of the samarium spectral lines at 672 and 686 nm. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2001, 90, 164-170.	0.2	3
117	Resonances of coherent population trapping in samarium vapours. Quantum Electronics, 2001, 31, 61-66.	0.3	13
118	Optimization of the Double Electronâ€“Electron Resonance for Câ€€centers in Diamond. Physica Status Solidi - Rapid Research Letters, 0, , 2100561.	1.2	0