Ksenia Yu Khabarova

List of Publications by Citations

61 papers	577 citations	9 h-index	22 g-index
65 ext. papers	706 ext. citations	2.6 avg, IF	3.49 L-index

#	Paper	IF	Citations
61	The Rydberg constant and proton size from atomic hydrogen. *Science*, **2017**, 358, 79-85	33.3	198
60	The GBAR antimatter gravity experiment. *Hyperfine Interactions*, **2015**, 233, 21-27	0.8	76
59	Precision spectroscopy of the 2S-4P transition in atomic hydrogen on a cryogenic beam of optically excited 2S atoms. *Annalen Der Physik*, **2013**, 525, 671-679	2.6	37
58	Spectroscopy of the hydrogen 1S□3S transition with chirped laser pulses. *Physical Review A*, **2016**, 93,	2.6	27
57	Inner-shell magnetic dipole transition in Tm atoms: A candidate for optical lattice clocks. *Physical Review A*, **2016**, 94,	2.6	25
56	Precision spectroscopy of 2S□P transitions in atomic hydrogen for a new determination of the Rydberg constant and the proton charge radius. *Physica Scripta*, **2015**, T165, 014030	2.6	14
55	Active fiber-based retroreflector providing phase-retracing anti-parallel laser beams for precision spectroscopy. *Optics Express*, **2016**, 24, 17470-85	3.3	13
54	Laser system for secondary cooling of87Sr atoms. *Quantum Electronics*, **2012**, 42, 1021-1026	1.8	12
53	Compact Transportable Optical Standard Based on a Single 171Yb+ Ion (YBIS□Project). *Bulletin of the Lebedev Physics Institute*, **2018**, 45, 337-340	0.5	12
52	Trapping, retention and laser cooling of Th3+ ions in a multisection linear quadrupole trap. *Quantum Electronics*, **2017**, 47, 406-411	1.8	9
51	Ultrastable laser system for spectroscopy of the 1S0 □3P0 clock transition in Sr atoms. *Quantum Electronics*, **2017**, 47, 400-405	1.8	8
50	Ultracold lanthanides: from optical clock to a quantum simulator. *Physics-Uspekhi*, **2016**, 59, 168-173	2.8	8
49	Loading of mass spectrometry ion trap with Th ions by laser ablation for nuclear frequency standard application. *European Journal of Mass Spectrometry*, **2017**, 23, 146-151	1.1	7
48	Detection of the clock transition (1.14 □m) in ultra-cold thulium atoms. *Quantum Electronics*, **2015**, 45, 482-485	1.8	7
47	On the thermal noise limit of ultrastable optical cavities. *Quantum Electronics*, **2018**, 48, 425-430	1.8	7
46	Two-temperature momentum distribution in a thulium magneto-optical trap. *Physical Review A*, **2017**, 96,	2.6	6
45	Trapping of thulium atoms in a cavity-enhanced optical lattice near a magic wavelength of 814.5 nm. *Quantum Electronics*, **2018**, 48, 415-418	1.8	6

44	Short-haul fibre-optic communication link with a phase noise compensation system for optical frequency signal transmission. *Quantum Electronics*, **2017**, 47, 794-797	1.8	6
43	Methods for determining the polarisability of the fine structure levels in the ground state of the thulium atom. *Quantum Electronics*, **2017**, 47, 479-483	1.8	5
42	Mass selective laser cooling of Th in a multisectional linear Paul trap loaded with a mixture of thorium isotopes. *European Journal of Mass Spectrometry*, **2017**, 23, 136-139	1.1	5
41	Improved measurement of the hyperfine structure of the laser cooling level (4f^{12}(^3H_6)5d_{5/2}6s^2) ((J=9/2)) in ({}^{169}_{,,69}{{mathrm {Tm}}}). *Applied Physics B: Lasers and Optics*, **2015**, 121, 275-282	1.9	5
40	Rabi spectroscopy of the clock transition in thulium atoms in a one-dimensional optical lattice. *Quantum Electronics*, **2020**, 50, 220-224	1.8	5
39	Multiparticle losses in a linear quadrupole Paul trap. *Quantum Electronics*, **2016**, 46, 935-940	1.8	5
38	2.8 km fiber link with phase noise compensation for transportable Yb+ optical clock characterization. *Laser Physics*, **2018**, 28, 105103	1.2	5
37	Compact ultrastable laser system for spectroscopy of 2S1/2 -2D3/2 quadrupole transition in 171Yb+ ion. *Quantum Electronics*, **2020**, 50, 850-854	1.8	5
36	Doppler laser cooling and vibrational spectrum of 24Mg+ ions in a linear Paul trap. *Quantum Electronics*, **2018**, 48, 448-452	1.8	4
35	Optical pumping of ultracold thulium atoms to a lower level of the clock transition and study of their depolarisation. *Quantum Electronics*, **2019**, 49, 418-423	1.8	4
34	A new generation of cryogenic high-Q Fabry–Perot resonators for ultrastable lasers. *Quantum Electronics*, **2017**, 47, 421-425	1.8	4
33	Detection of the clock transition in thulium atoms by using repump laser radiation. *Quantum Electronics*, **2020**, 50, 566-570	1.8	4
32	Microwave frequency standard on 25Mg+ ions: expected characteristics and prospects. *Quantum Electronics*, **2017**, 47, 426-430	1.8	3
31	Secondary laser cooling of strontium-88 atoms. *Journal of Experimental and Theoretical Physics*, **2015**, 121, 19-26	1	3
30	A Compact Second-Harmonic Generator for Tasks of Precision Spectroscopy Within the Range of 240–300 nm. *Journal of Russian Laser Research*, **2016**, 37, 440-447	0.7	3
29	Temperature drift contribution to frequency instability of silicon Fabry–Perot cavities. *Quantum Electronics*, **2019**, 49, 424-428	1.8	3
28	Spectroscopy of intercombination transition1S0–P1for secondary cooling of strontium atoms. *Quantum Electronics*, **2015**, 45, 166-170	1.8	3
27	Precision laser spectroscopy in fundamental studies. *Physics-Uspekhi*, **2014**, 57, 1230-1238	2.8	3

26	Compensation of residual amplitude modulation fluctuations in an optoelectronic system for laser radiation frequency stabilisation. *Quantum Electronics*, **2020**, 50, 590-594	1.8	3
25	Magic wavelengths near 800 nm for precision spectroscopy of an inner-shell transition in thulium atoms. *Quantum Electronics*, **2019**, 49, 1028-1031	1.8	3
24	EIT Ground State Cooling Scheme of 171Yb+ Based on the 2S1/2-ðP1/2 Cooling Transition. *Journal of Russian Laser Research*, **2018**, 39, 568-574	0.7	3
23	Nonselective Paul ion trap loading with a light-emitting diode. *Applied Physics Letters*, **2019**, 115, 104102	3.4	2
22	Frequency transfer via an ultra-stable free-space link. *Quantum Electronics*, **2020**, 50, 267-271	1.8	2
21	Motional states of laser cooled Yb ions in an optimized radiofrequency trap. *Laser Physics*, **2019**, 29, 095201	1.1	2
20	Improved Wavelength Measurement of 2S1/2-ðP1/2 and 2D3/2-ð[3/2]1/2 Transitions in Yb+. *Journal of Russian Laser Research*, **2019**, 40, 375-381	0.7	2
19	The density of states in the mobility gap of amorphous hydrogenated silicon doped with erbium. *Semiconductors*, **2005**, 39, 351-353	0.7	2
18	Investigation of the transition at a wavelength of 506 nm, intended for deep cooling of thulium atoms. *Quantum Electronics*, **2021**, 51, 479-483	1.8	2
17	Three-Dimensional Paul Trap with High Secular Frequency for Compact Optical Clock. *Bulletin of the Lebedev Physics Institute*, **2019**, 46, 297-300	0.5	1
16	Laser Cooling of Lanthanides: from Optical Clocks to Quantum Simulators. *EPJ Web of Conferences*, **2015**, 103, 01007	0.3	1
15	Modulated photoconductivity method for investigation of band gap states distribution in silicon-based thin films. *Journal of Non-Crystalline Solids*, **2006**, 352, 1176-1179	3.9	1
14	Distribution of the density of electronic states in the energy gap of microcrystalline hydrogenated silicon. *Semiconductors*, **2004**, 38, 1221-1224	0.7	1
13	Estimation of uncertainty budget for a thulium optical clock **2020**,		1
12	Long ULE Cavities with Relative Fractional Frequency Drift Rate below 5 □10□16/s for Laser Frequency Stabilization. *Bulletin of the Lebedev Physics Institute*, **2020**, 47, 257-261	0.5	1
11	Laser systems stabilized to cryogenic silicon cavities for precision measurements. *EPJ Web of Conferences*, **2019**, 220, 03020	0.3	1
10	Simultaneous bicolor interrogation in thulium optical clock providing very low systematic frequency shifts. *Nature Communications*, **2021**, 12, 5171	17.4	1
9	48 -cm-long room-temperature cavities in vertical and horizontal orientations for Sr optical clock. *Applied Optics*, **2021**, 60, 9151-9159	1.7	1

8	Linear Paul Trap for Quantum Logic Experiments. *Bulletin of the Lebedev Physics Institute*, **2020**, 47, 385-389	0.5	0
7	Progress in optical frequency standards: ultracold Thulium, ions, and passive resonators. *Journal of Physics: Conference Series*, **2017**, 793, 012013	0.3	
6	Optimization of Raman Cooling of 25Mg+ Ion to Ground Vibrational State in Linear Paul Trap. *Bulletin of the Lebedev Physics Institute*, **2019**, 46, 138-142	0.5	
5	Deep Laser Cooling and Trapping of Sr at VNIIFTRI. *EPJ Web of Conferences*, **2015**, 103, 06004	0.3	
4	Detection of 1.14 Hz Magnetic Dipole Transition in Ultracold Thulium. *EPJ Web of Conferences*, **2015**, 103, 06002	0.3	
3	Observation of Magnetically Induced Trap Loss of Ultracold Thulium Atoms. *EPJ Web of Conferences*, **2015**, 103, 06003	0.3	
2	Effect of electron irradiation on optical and photoelectric properties of microcrystalline hydrogenated silicon. *Semiconductors*, **2003**, 37, 1076-1079	0.7	
1	Photoionization dynamics of Mg atoms during Paul trap loading using a two-color UV laser system. *Laser Physics Letters*, **2020**, 17, 125501	1.5	