

# Oleg N Prudnikov

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

45  
papers

282  
citations

7  
h-index

16  
g-index

59  
ext. papers

364  
ext. citations

1.3  
avg, IF

2.66  
L-index

#	Paper	IF	Citations
45	Magneto-optical trap for 6Li atoms formed by elliptically polarised light waves. <i>Quantum Electronics</i> , <b>2022</b> , 52, 137-143	1.8	
44	Itat'ev-Stratonovich dilemma in the problem of laser cooling of atoms: limits of applicability of the semiclassical approximation. <i>Quantum Electronics</i> , <b>2022</b> , 52, 130-136	1.8	1
43	Guided-mode resonance in periodic surface textures on Si thin films induced by nanosecond laser irradiation. <i>Photonics and Nanostructures - Fundamentals and Applications</i> , <b>2021</b> , 45, 100923	2.6	
42	Combined atomic clock with blackbody-radiation-shift-induced instability below $10^{-19}$ under natural environment conditions. <i>New Journal of Physics</i> , <b>2021</b> , 23, 023032	2.9	1
41	Guided-mode waves structure of electric and magnetic dipole resonances in a metamaterial slab. <i>Optics Express</i> , <b>2021</b> , 29, 30610-30624	3.3	0
40	Atom interferometry with ultracold Mg atoms: frequency standard and quantum sensors. <i>Journal of Physics: Conference Series</i> , <b>2020</b> , 1508, 012002	0.3	0
39	Laser cooling limits in fields with a polarisation gradient of atoms with different recoil energies. <i>Quantum Electronics</i> , <b>2020</b> , 50, 939-946	1.8	2
38	Scaling law in laser cooling on narrow-line optical transitions. <i>Physical Review A</i> , <b>2019</b> , 99,	2.6	2
37	Spectroscopy of the quadrupole clock transition of ytterbium-171 ions for optical frequency standard development. <i>Quantum Electronics</i> , <b>2019</b> , 49, 412-417	1.8	4
36	Quantum treatment of laser cooling on weak transitions: multi-peaks and bimodal momentum distributions. <i>Journal of Physics: Conference Series</i> , <b>2018</b> , 951, 012004	0.3	1
35	Study of laser cooling in deep optical lattice: two-level quantum model. <i>Journal of Physics: Conference Series</i> , <b>2018</b> , 951, 012019	0.3	
34	Deep laser cooling of strontium atoms on $1S_0-3P_0$ transition. <i>Journal of Physics: Conference Series</i> , <b>2017</b> , 793, 012011	0.3	
33	Deep sub-Doppler cooling of Mg in MOT formed by light waves with elliptical polarization. <i>Journal of Physics: Conference Series</i> , <b>2017</b> , 793, 012021	0.3	
32	An optical frequency standard based on ultracold magnesium atoms. <i>Journal of Physics: Conference Series</i> , <b>2017</b> , 793, 012008	0.3	
31	Two-temperature momentum distribution in a thulium magneto-optical trap. <i>Physical Review A</i> , <b>2017</b> , 96,	2.6	6
30	Laser cooling of $171\text{Yb}^+$ ions in a frequency-modulated field. <i>Quantum Electronics</i> , <b>2017</b> , 47, 806-811	1.8	4
29	Studying the possibility of deep laser cooling of $24\text{Mg}$ atoms in an optical lattice: Two-level quantum model. <i>Bulletin of the Russian Academy of Sciences: Physics</i> , <b>2017</b> , 81, 1420-1428	0.4	

28	Laser pulse shape dependence of poly-Si crystallization. <i>AIP Advances</i> , <b>2017</b> , 7, 125102	1.5	0
27	Kinetics of atoms in a bichromatic field formed by elliptically polarised waves. <i>Quantum Electronics</i> , <b>2017</b> , 47, 438-445	1.8	2
26	Magneto-optical trap formed by elliptically polarised light waves for Mg atoms. <i>Quantum Electronics</i> , <b>2016</b> , 46, 661-667	1.8	5
25	New approaches in deep laser cooling of magnesium atoms for quantum metrology. <i>Laser Physics</i> , <b>2016</b> , 26, 095503	1.2	6
24	Quantum theory of the laser cooling of two-level atoms in the field of a standing light wave: A statistical description of dynamics. <i>Bulletin of the Russian Academy of Sciences: Physics</i> , <b>2016</b> , 80, 55-59	0.4	
23	Quantum theory of laser cooling: Statistical description of the process dynamics. <i>Journal of Experimental and Theoretical Physics</i> , <b>2016</b> , 123, 1-11	1	0
22	Quantum treatment of two-stage sub-Doppler laser cooling of magnesium atoms. <i>Physical Review A</i> , <b>2015</b> , 92,	2.6	7
21	Essentially nonequilibrium steady state of atoms in an optical field. <i>JETP Letters</i> , <b>2015</b> , 102, 576-580	1.2	2
20	Three-dimensional theory of the magneto-optical trap. <i>Journal of Experimental and Theoretical Physics</i> , <b>2015</b> , 120, 587-594	1	4
19	Kinetics of atoms in a bichromatic field. <i>Journal of Experimental and Theoretical Physics</i> , <b>2013</b> , 117, 222-231		1
18	Anomalous spatial concentration of atoms in the field of a standing light wave. <i>JETP Letters</i> , <b>2012</b> , 95, 399-402	1.2	4
17	Steady state of a low-density ensemble of atoms in a monochromatic field taking into account recoil effects. <i>Journal of Experimental and Theoretical Physics</i> , <b>2011</b> , 112, 939-945	1	16
16	High angular tolerant color filter using subwavelength grating. <i>Applied Physics Letters</i> , <b>2009</b> , 94, 213104	3.4	58
15	Two-dimensional photonic crystal color filter development. <i>Optics Express</i> , <b>2009</b> , 17, 8621-9	3.3	81
14	Magneto-optical force in a resonant field of elliptically polarized light waves. <i>Physical Review A</i> , <b>2008</b> , 77,	2.6	3
13	Magneto-optical force in the resonance field formed by elliptically polarized light waves. <i>Journal of Experimental and Theoretical Physics</i> , <b>2008</b> , 106, 839-845	1	0
12	Dissipative light mask generated by a nonuniformly polarized field for atomic lithography. <i>Journal of Experimental and Theoretical Physics</i> , <b>2007</b> , 104, 839-845	1	7
11	Polarization-gradient laser cooling as a way to create strongly localized structures for atom lithography. <i>Physical Review A</i> , <b>2007</b> , 75,	2.6	3

10	Steady-state light-induced forces in atomic nanolithography. <i>Journal of Experimental and Theoretical Physics</i> , <b>2005</b> , 101, 584-596	1	
9	Tunable frequency-stabilised laser for studying the cooling dynamics of Rb atoms in a magneto-optical trap. <i>Quantum Electronics</i> , <b>2004</b> , 34, 341-347	1.8	9
8	Quasiclassical laser cooling in an intense standing wave. <i>Journal of Optics B: Quantum and Semiclassical Optics</i> , <b>2004</b> , 6, 336-344		4
7	Kinetics of atoms in the field produced by elliptically polarized waves. <i>Journal of Experimental and Theoretical Physics</i> , <b>2004</b> , 98, 438-454	1	13
6	Basis of polarization-dressed states of an atom in an elliptically polarized resonant field. <i>Journal of Experimental and Theoretical Physics</i> , <b>2004</b> , 99, 1137-1149	1	5
5	The light pressure force and the friction and diffusion coefficients for atoms in a resonant nonuniformly polarized laser field. <i>Journal of Experimental and Theoretical Physics</i> , <b>2003</b> , 96, 383-401	1	10
4	Sub-Doppler laser cooling on combined optical transitions. <i>Journal of the Optical Society of America B: Optical Physics</i> , <b>2003</b> , 20, 909	1.7	11
3	Rectification of the dipole force in a monochromatic field created by elliptically polarized waves. <i>Journal of Experimental and Theoretical Physics</i> , <b>2001</b> , 93, 63-70	1	1
2	Kinetics of atoms in an elliptically polarized standing wave. <i>Journal of Experimental and Theoretical Physics</i> , <b>1999</b> , 88, 433-440	1	4
1	New friction force due to spontaneous light pressure. <i>JETP Letters</i> , <b>1999</b> , 70, 443-449	1.2	5