

Vladimir A Sautenkov

List of Publications by Year in descending order

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110
papers

3,561
citations

186265

28
h-index

133252

59
g-index

110
all docs

110
docs citations

110
times ranked

1758
citing authors

#	ARTICLE	IF	CITATIONS
1	Ultraslow Group Velocity and Enhanced Nonlinear Optical Effects in a Coherently Driven Hot Atomic Gas. <i>Physical Review Letters</i> , 1999, 82, 5229-5232.	7.8	1,172
2	Optimizing the Laser-Pulse Configuration for Coherent Raman Spectroscopy. <i>Science</i> , 2007, 316, 265-268.	12.6	308
3	Electromagnetically induced transparency controlled by a microwave field. <i>Physical Review A</i> , 2009, 80, .	2.5	126
4	Single-shot detection of bacterial endospores via coherent Raman spectroscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 422-427.	7.1	119
5	Nonlinear optics via double dark resonances. <i>Physical Review A</i> , 2003, 68, .	2.5	105
6	Switching between photon-photon correlations and Raman anticorrelations in a coherently prepared Rb vapor. <i>Physical Review A</i> , 2005, 72, .	2.5	83
7	Optical imaging beyond the diffraction limit via dark states. <i>Physical Review A</i> , 2008, 78, .	2.5	71
8	Enhancement of magneto-optic effects via large atomic coherence in optically dense media. <i>Physical Review A</i> , 2000, 62, .	2.5	66
9	Coherence brightened laser source for atmospheric remote sensing. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 15185-15190.	7.1	65
10	Absorption resonance and large negative delay in rubidium vapor with a buffer gas. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2004, 21, 425.	2.1	60
11	Large negative and positive delay of optical pulses in coherently prepared dense Rb vapor with buffer gas. <i>Physical Review A</i> , 2004, 69, .	2.5	57
12	Electromagnetically induced transparency in rubidium vapor prepared by a comb of short optical pulses. <i>Physical Review A</i> , 2005, 71, .	2.5	54
13	Dipole-Dipole Broadened Line Shape in a Partially Excited Dense Atomic Gas. <i>Physical Review Letters</i> , 1996, 77, 3327-3330.	7.8	52
14	Enhancement of field generation via maximal atomic coherence prepared by fast adiabatic passage in Rb vapor. <i>Physical Review A</i> , 2004, 70, .	2.5	52
15	Electromagnetically Induced Magneto-chiral Anisotropy in a Resonant Medium. <i>Physical Review Letters</i> , 2005, 94, 233601.	7.8	51
16	Visible and UV coherent Raman spectroscopy of dipicolinic acid. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 14976-14981.	7.1	51
17	Coherent versus incoherent Raman scattering: molecular coherence excitation and measurement. <i>Optics Letters</i> , 2007, 32, 1725.	3.3	51
18	Measurement of cesium resonance line self-broadening and shift with doppler-free selective reflection spectroscopy. <i>Optics Communications</i> , 1993, 99, 185-190.	2.1	46

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19	Excitation of atomic coherence using off-resonant strong laser pulses. <i>Physical Review A</i> , 2009, 79, .	2.5	45
20	Observation of picosecond superfluorescent pulses in rubidium atomic vapor pumped by 100-fs laser pulses. <i>Physical Review A</i> , 2010, 82, .	2.5	44
21	Ultradispersive adaptive prism based on a coherently prepared atomic medium. <i>Physical Review A</i> , 2010, 81, .	2.5	42
22	Femtosecond CARS of methanol-water mixtures. <i>Journal of Raman Spectroscopy</i> , 2006, 37, 392-396.	2.5	40
23	Fast optical switching via stimulated Raman adiabatic passage. <i>Optics Letters</i> , 2003, 28, 2213.	3.3	39
24	Carrier-Envelope Phase Effect on Atomic Excitation by Few-Cycle rf Pulses. <i>Physical Review Letters</i> , 2010, 104, 103001.	7.8	34
25	Observation of ground-state Zeeman coherences in the selective reflection from cesium vapor. <i>Physical Review A</i> , 1992, 45, 7991-7996.	2.5	31
26	Ac-Stark shifts in the nonlinear Faraday effect. <i>Optics Letters</i> , 2000, 25, 1651.	3.3	31
27	Power broadening of saturation absorption resonance on the D2 line of rubidium. <i>Optics Communications</i> , 1990, 77, 295-298.	2.1	29
28	High-resolution selective reflection spectroscopy in intermediate magnetic fields. <i>Applied Physics B: Lasers and Optics</i> , 1994, 59, 123-126.	2.2	28
29	Intensity correlation and anti-correlations in coherently driven atomic vapor. <i>Journal of Modern Optics</i> , 2010, 57, 1417-1427.	1.3	23
30	Experimental observation of carrier-envelope-phase effects by multicycle pulses. <i>Physical Review A</i> , 2011, 83, .	2.5	23
31	Intensity and concentration dependence of Doppler-free resonance in selective reflection. <i>Optics Communications</i> , 1991, 85, 21-25.	2.1	21
32	Efficient excitation of Rydberg states in ultracold lithium-7 atoms. <i>JETP Letters</i> , 2014, 100, 366-370.	1.4	20
33	Optical pumping saturation effect in selective reflection. <i>Optics Communications</i> , 1994, 108, 77-83.	2.1	19
34	Dipole-dipole collision-induced transport of resonance excitation in a high-density atomic vapor. <i>Physical Review A</i> , 1997, 56, 3569-3575.	2.5	19
35	Line shapes of atomic transitions in excited dense gas. <i>Laser Physics Letters</i> , 2011, 8, 771-781.	1.4	19
36	Ultrafast laser control of backward superfluorescence towards standoff sensing. <i>Applied Physics Letters</i> , 2014, 104, .	3.3	19

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37	Picosecond superradiance in a three-photon resonant medium. <i>Physical Review A</i> , 2012, 85, .	2.5	18
38	Improvement of spectral resolution by using the excitation dependence of dipole-dipole interaction in a dense atomic gas. <i>Applied Physics B: Lasers and Optics</i> , 2008, 91, 229-231.	2.2	17
39	Pulse shaping for mode-selective ultrafast coherent Raman spectroscopy of highly scattering solids. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2008, 25, 768.	2.1	17
40	Spectral narrowing via quantum coherence. <i>Physical Review A</i> , 2006, 74, .	2.5	15
41	Velocity selective optical pumping and dark resonances in selective reflection spectroscopy. <i>Physical Review A</i> , 1997, 55, 2973-2981.	2.5	14
42	Observation of narrow Autler-Townes components in the resonant response of a dense atomic gas. <i>Physical Review A</i> , 2008, 78, .	2.5	14
43	Observation of electromagnetically induced transparency in cesium molecules. <i>Laser Physics</i> , 2010, 20, 1725-1728.	1.2	14
44	Preparation of a high concentration of lithium-7 atoms in a magneto-optical trap. <i>Journal of Experimental and Theoretical Physics</i> , 2014, 119, 795-801.	0.9	14
45	Laser cooling of ⁷ Li atoms in a magneto-optical trap. <i>JETP Letters</i> , 2014, 98, 670-674.	1.4	14
46	Excitation dependence of resonance line self-broadening at different atomic densities. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2009, 42, 065203.	1.5	13
47	Selective reflection of a laser beam from a dilute rubidium vapor. <i>Journal of Russian Laser Research</i> , 2010, 31, 270-275.	0.6	13
48	Quantum fluctuations of superfluorescence delay observed with ultrashort optical excitations. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2012, 376, 335-338.	2.1	13
49	Femtosecond wave-packet dynamics in cesium dimers studied through controlled stimulated emission. <i>Physical Review A</i> , 2010, 81, .	2.5	12
50	Temporal coherent control of superfluorescent pulses. <i>Optics Letters</i> , 2012, 37, 2400.	3.3	12
51	Observation of Rydberg Transitions in Resonance Fluorescence of Ultracold Lithium-7 Atoms. <i>Journal of Russian Laser Research</i> , 2015, 36, 193-199.	0.6	12
52	Observing the transition from yoked superfluorescence to superradiance. <i>Optics Communications</i> , 2015, 351, 45-49.	2.1	12
53	Probing the spatial dispersion in a dense atomic vapor near a dielectric interface. <i>Physical Review A</i> , 1998, 58, 4473-4478.	2.5	11
54	Observation of narrow resonances inside homogeneously self-broadened lines in pump-probe reflection experiments. <i>Physical Review A</i> , 1997, 55, 3137-3142.	2.5	10

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55	Observation of collisional modification of the Zeeman effect in a high-density atomic vapor. <i>Physical Review A</i> , 1997, 56, 310-315.	2.5	10
56	Concentration dependence of femtosecond coherent anti-Stokes Raman scattering in the presence of strong absorption. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2007, 24, 1181.	2.1	10
57	Atomic noise spectra in nonlinear magneto-optical rotation in a rubidium vapor. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2008, 25, 1702.	2.1	10
58	Using phase dynamics in EIT to probe ground state relaxation in rubidium vapor. <i>Journal of Modern Optics</i> , 2009, 56, 975-979.	1.3	10
59	Optical Dipole Trap for Laser-Cooled Lithium-7 Atoms. <i>Journal of Russian Laser Research</i> , 2019, 40, 230-236.	0.6	10
60	Dynamic control of EIT by changing optical phase. <i>Journal of Modern Optics</i> , 2008, 55, 3093-3099.	1.3	9
61	Switching from a sequential transition to quantum beating in atomic rubidium pumped by a femtosecond laser. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2011, 28, 462.	2.1	9
62	Observation of picosecond UV pulses produced by coherent scattering of IR femtosecond pulses in atomic rubidium vapor. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2011, 28, 515.	2.1	9
63	Power Broadening of Two-Photon Coherent Resonances on Rydberg Atomic Transitions in a Magneto-Optical Trap. <i>Journal of Russian Laser Research</i> , 2017, 38, 91-95.	0.6	9
64	Power spectra and correlations of intensity fluctuations in electromagnetically induced transparency. <i>Journal of Modern Optics</i> , 2007, 54, 2451-2457.	1.3	8
65	Quantum defects in Rydberg nD states of optically cooled ${}^7\text{Li}$ atoms. <i>Laser Physics</i> , 2016, 26, 115701.	1.2	8
66	Intensity correlations in a coherently prepared Rb vapor in a magnetic field. <i>Optics Communications</i> , 2009, 282, 39-44.	2.1	7
67	Forbidden $2P \leftarrow nP$ and $2P \leftarrow nF$ transitions in the energy spectrum of ultracold Rydberg lithium-7 atoms. <i>Journal of Experimental and Theoretical Physics</i> , 2016, 122, 645-649.	0.9	7
68	Near-infrared saturation spectroscopy of cesium molecules using a diode laser. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2006, 23, 723.	2.1	6
69	Resonant uv pump-probe spectroscopy of dipicolinic acid via impulsive excitation. <i>Physical Review A</i> , 2008, 77, .	2.5	6
70	Variable spectral filter based on optically saturated selective reflection. <i>Laser Physics</i> , 2011, 21, 153-157.	1.2	6
71	Phase dependent interference effects on atomic excitation. <i>Optics Communications</i> , 2011, 284, 2538-2541.	2.1	6
72	Observations of ultrafast superfluorescent beatings in a cesium atomic vapor excited by femtosecond laser pulses. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2022, 428, 127945.	2.1	6

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73	Electromagnetically induced resonances in a dipole-dipole broadened dense atomic vapor. Optics Communications, 2000, 180, 81-87.	2.1	5
74	Unmodulated external-cavity diode laser stabilised on caesium D2 line. IET Science, Measurement and Technology, 1996, 143, 263-264.	0.7	4
75	Control of population and atomic coherence by adiabatic rapid passage and optimization of coherent anti-Stokes Raman scattering signal by maximal coherence. Journal of Modern Optics, 2004, 51, 2555-2569.	1.3	4
76	Contrast Saturation Resonances in the Absorption Band of Rubidium Molecules. Journal of Russian Laser Research, 2013, 34, 375-378.	0.6	4
77	Absorption and fluorescence laser spectroscopy of Rb ₂ molecules. Journal of Modern Optics, 2005, 52, 2373-2380.	1.3	3
78	Ultralow-power local laser control of the dimer density in alkali-metal vapors through photodesorption. Applied Physics Letters, 2012, 101, 091107.	3.3	3
79	Coherent and non-coherent components of two-photon Rydberg excitation of ultracold Li ⁷ atoms. Doklady Physics, 2016, 61, 164-167.	0.7	3
80	Optical Resonant Saturation of Dipole-Dipole Broadened Transitions in High-Density Atomic Vapor. Journal of Russian Laser Research, 2021, 42, 405-411.	0.6	3
81	Polarization cross-coupling in a polymer microlaser upon double-pulse excitation. Physical Review A, 2002, 65, .	2.5	2
82	A model experiment for stand-off sensing. Journal of Modern Optics, 2008, 55, 3273-3281.	1.3	2
83	A Rapid Inspection of Atomic Interference using Superfluorescent Picosecond Pulses. , 2010, , .		2
84	Tracking molecular wave packets in cesium dimers by coherent Raman scattering. Physical Review A, 2012, 86, .	2.5	2
85	Energy intervals between Rydberg states nD and nF in lithium-7. Journal of Physics: Conference Series, 2016, 774, 012165.	0.4	2
86	Observation of coherent effects using a mode-locked rubidium laser. Journal of Physics B: Atomic, Molecular and Optical Physics, 2017, 50, 035503.	1.5	2
87	Spectral dependence of nonlinear radiation trapping in high density atomic vapor. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 256, 107349.	2.3	2
88	Observation of anomalous stimulated scattering of sound waves via ultra-slow light. , 2005, , .		2
89	Self-focusing threshold of a beam of laser radiation in rubidium vapor. Journal of Optical Technology (A Translation of Opticheskii Zhurnal), 2016, 83, 667.	0.4	2
90	Quasisoliton Mechanism of Generation of Bistable Injection Laser with External Cavity. Physica Status Solidi (B): Basic Research, 1988, 150, 605-609.	1.5	1

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91	Observation of coherent anti-Stokes Raman scattering in the phase-mismatched direction. Journal of the Optical Society of America B: Optical Physics, 2005, 22, 1979.	2.1	1
92	Backward Raman amplification in the gas of rubidium dimers. Journal of Modern Optics, 2006, 53, 2431-2438.	1.3	1
93	Dipole-dipole interactions between atoms in a partly excited resonance gas. Journal of Physics: Conference Series, 2016, 774, 012126.	0.4	1
94	Measurements of quantum defect in Rydberg D -states for lithium atoms. Journal of Physics: Conference Series, 2016, 774, 012166.	0.4	1
95	Two-photon Rydberg resonances in lithium-7 obtained by recording reduction of resonance fluorescence. Doklady Physics, 2017, 62, 107-110.	0.7	1
96	Near-Threshold Measurement of the Photoionization Cross-Section of the Lithium $2P_{3/2}$ State in a Magneto-Optical Trap. Journal of Russian Laser Research, 2021, 42, 545-553.	0.6	1
97	Spectral profiles of strongly saturated resonance transitions in high-density Rb vapor. Journal of Quantitative Spectroscopy and Radiative Transfer, 2022, 278, 108007.	2.3	1
98	Influence of saturation beam parameters on laser frequency locked to the cesium cycling transition. , 0, , .		0
99	Electromagnetically induced transparency in Cs molecules. , 2006, , .		0
100	From EIT photon correlations to Raman anti-correlations in coherently prepared Rb vapor. , 2006, , .		0
101	An ultra-dispersive optically controlled atomic prism. , 2007, , .		0
102	Monitoring Vibrational Wave Packet Dynamics via Direct Femtosecond Pump-Probe Measurements. , 2007, , .		0
103	Detection of <i>B. subtilis</i> spores via Hybrid CARS. , 2007, , .		0
104	Detection of <i>B. subtilis</i> spores via hybrid CARS. , 2007, , .		0
105	Hybrid of Frequency and Time Resolved CARS. , 2007, , .		0
106	An optical prism based on resonance ultra-dispersive media. , 2007, , .		0
107	Monitoring vibrational wave packet dynamics via direct femtosecond pump-probe measurements. , 2007, , .		0
108	Effect of Carrier-Envelope Phase on Bound-State Atomic Excitation by Multi-Cycle Pulse. , 2011, , .		0

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109	Preparation of Rydberg states in ultracold Li-7 atoms by using coherent or non-coherent optical excitation. Journal of Physics: Conference Series, 2016, 774, 012164.	0.4	0
110	Non-adiabatic Atomic Coherence at Work in the Oxygen Laser Source for Atmospheric Remote Sensing. , 2012, , .		0