Svetlana A Malinovskaya

List of Publications by Year
in descending order

56 papers	454 citations	759233 12 h-index	752698 20 g-index
56 all docs	56 docs citations	56 times ranked	326 citing authors

#	Article	IF	Citations
1	Laser cooling using adiabatic rapid passage. Frontiers of Physics, 2021, 16, 1.	5.0	5
2	Creation of quantum entangled states of Rydberg atoms via chirped adiabatic passage. Scientific Reports, 2021, 11, 12980.	3.3	6
3	Semiclassical control theory of coherent anti-Stokes Raman scattering maximizing vibrational coherence for remote detection. Physical Review A, 2021, 104, .	2.5	7
4	Limits to remote molecular detection via coherent anti-Stokes raman spectroscopy using a maximal coherence control technique. Journal of Modern Optics, 2020, 67, 21-25.	1.3	8
5	Creation of the maximum coherence via adiabatic passage in the four-wave mixing process of coherent anti-Stokes Raman scattering. Chemical Physics Letters, 2020, 738, 136763.	2.6	9
6	Quantum Control of Entanglement Using Spin States in Rydberg Atoms. , 2019, , .		0
7	Creation of ultracold molecules within the lifetime scale by direct implementation of an optical frequency comb. Journal of Modern Optics, 2018, 65, 1309-1317.	1.3	5
8	Adiabatic Passage Control Methods for Ultracold Alkali Atoms and Molecules via Chirped Laser Pulses and Optical Frequency Combs. Advances in Quantum Chemistry, 2018, 77, 241-294.	0.8	2
9	Many-Body Physics with Spin States of Rydberg Atoms. , 2018, , .		0
10	Quantum Control in Multilevel Systems. Advances in Atomic, Molecular and Optical Physics, 2018, 67, 151-256.	2.3	21
11	From Rabi oscillations to adiabatic passage in multi-level quantum systems with a train of weak pulses. , 2018, , .		0
12	Design of many-body spin states of Rydberg atoms excited to highly tunable magnetic sublevels. Optics Letters, 2017, 42, 314.	3.3	11
13	Harmonic spectral modulation of an optical frequency comb to control the ultracold molecules formation. Chemical Physics Letters, 2016, 664, 1-4.	2.6	8
14	Enhanced contrast CARS for biochemical and environmental analysis. , 2016, , .		0
15	Two-photon adiabatic passage in ultracold Rb interacting with a single nanosecond, chirped pulse. Journal of Physics B: Atomic, Molecular and Optical Physics, 2015, 48, 194001.	1.5	1
16	Collective effects in subwavelength hybrid systems: a numerical analysis. Molecular Physics, 2015, 113, 392-396.	1.7	2
17	Adiabatic rapid passage two-photon excitation of a Rydberg atom. Physica Scripta, 2014, T160, 014024.	2.5	9
18	Optimal control of multilevel quantum systems in the field-interaction representation. Physical Review A, 2014, 90, .	2.5	7

#	ARTICLE	IF	CITATIONS
19	Population inversion in hyperfine states of Rb with a single nanosecond chirped pulse in the framework of a four-level system. Physical Review A, 2014, 89, .	2.5	11
20	Selective creation of maximum coherence in multi-level Î› system. Molecular Physics, 2014, 112, 326-331.	1.7	2
21	Robust control in ultracold alkali metals using a single linearly chirped pulse. Journal of Modern Optics, 2013, 60, 28-35.	1.3	4
22	Impact of decoherence on internal state cooling using optical frequency combs. Journal of the Optical Society of America B: Optical Physics, 2013, 30, 482.	2.1	5
23	Manipulation of ultracold Rb atoms using a single linearly chirped laser pulse. Optics Letters, 2012, 37, 2298.	3.3	17
24	Ultrafast Manipulation of Raman Transitions and Prevention of Decoherence Using Chirped Pulses and Optical Frequency Combs. Advances in Quantum Chemistry, 2012, 64, 211-258.	0.8	2
25	Ultrafast geometric control of a single qubit using chirped pulses. Physica Scripta, 2012, T147, 014013.	2.5	3
26	Stimulated Raman adiabatic passage as a route to achieving optical control in plasmonics. Physical Review A, 2012, 86, .	2.5	23
27	Realization of population inversion under nonadiabatic conditions induced by the coupling between vibrational modes via Raman fields. International Journal of Quantum Chemistry, 2012, 112, 3739-3743.	2.0	0
28	Optimal control of population and coherence in three-level Î› systems. Journal of Physics B: Atomic, Molecular and Optical Physics, 2011, 44, 154010.	1.5	21
29	Nonadiabatic effects induced by the coupling between vibrational modes via Raman fields. Physical Review A, 2011, 83, .	2.5	5
30	Theory of Molecular Cooling Using Optical Frequency Combs in the Presence of Decoherence. , 2011, , .		0
31	Effects of phase and coupling between the vibrational modes on selective excitation in coherent anti-Stokes Raman scattering microscopy. Physical Review A, 2010, 81, .	2.5	13
32	Internal state cooling with a femtosecond optical frequency comb. International Journal of Quantum Chemistry, 2010, 110, 3080-3085.	2.0	1
33	Feshbach-to-ultracold molecular state Raman transitions via a femtosecond optical frequency comb. Journal of Modern Optics, 2010, 57, 1871-1876.	1.3	1
34	Quantum dynamics manipulation using optimal control theory in the presence of laser field noise. Journal of Modern Optics, 2010, 57, 1243-1250.	1.3	4
35	Robust control by two chirped pulse trains in the presence of decoherence. Journal of Modern Optics, 2009, 56, 784-789.	1.3	1
36	An <i>ab initio</i> analysis of charge redistribution upon isomerization of retinal in rhodopsin and bacteriorhodopsin. International Journal of Quantum Chemistry, 2009, 109, 3131-3141.	2.0	0

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37	Optimal coherence via adiabatic following. Optics Communications, 2009, 282, 3527-3529.	2.1	5
38	Optimal Coherence Using Chirped Pulse Trains for Enhanced Imaging. , 2009, , .		0
39	Prevention of decoherence by two femtosecond chirped pulse trains. Optics Letters, 2008, 33, 2245.	3.3	19
40	Optimal coherence via chirped pulse adiabatic passage in the presence of dephasing. Journal of Modern Optics, 2008, 55, 3101-3108.	1.3	3
41	Optimal Coherence Using Chirped Pulse Trains for Enhanced Imaging. , 2008, , .		0
42	Chirped-pulse adiabatic control in coherent anti-Stokes Raman scattering for imaging of biological structure and dynamics. Optics Letters, 2007, 32, 707.	3.3	44
43	Chirped Pulse Adiabatic Passage in CARS for Imaging of Biological Structure and Dynamics. AIP Conference Proceedings, 2007, , .	0.4	1
44	Chirped Pulse Adiabatic Passage in CARS. , 2007, , .		0
45	Chirped pulse control methods for imaging of biological structure and dynamics. International Journal of Quantum Chemistry, 2007, 107, 3151-3158.	2.0	13
46	Mode-selective excitation using ultrafast chirped laser pulses. Physical Review A, 2006, 73, .	2.5	23
47	Pulse function for control of the coherent excitation in stimulated Raman spectroscopy. International Journal of Quantum Chemistry, 2005, 102, 313-317.	2.0	0
48	Theory of selective excitation in stimulated Raman scattering. Physical Review A, 2004, 69, .	2.5	27
49	On the role of coupling in mode selective excitation using ultrafast pulse shaping in stimulated Raman spectroscopy. Journal of Chemical Physics, 2004, 121, 3434-3437.	3.0	6
50	Dynamics of proton-acetylene collisions at 30 eV. Journal of Chemical Physics, 2002, 117, 1103-1108.	3.0	20
51	The role of coherence and time in the mechanism of dynamical symmetry breaking and localization. International Journal of Quantum Chemistry, 2000, 80, 950-957.	2.0	5
52	Violation of electronic optical selection rules in x-ray emission by nuclear dynamics: Time-dependent formulation. Physical Review A, 2000, 61, .	2.5	7
53	Analytical approximation of the conformational dependence of the exchange interaction parameters for axially coordinated Cu(II) complexes with nitroxides. Journal of Structural Chemistry, 1995, 36, 23-28.	1.0	0
54	Method and program for magnetic susceptibility calculation of a system of clusters composed of exchange-interacting paramagnetic species including the anisotropy of g-factor and zero-field splittings. Journal of Structural Chemistry, 1993, 34, 394-397.	1.0	0

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55	Exchange parameters of five-spin clusters of Cu(II) coordination compounds with imidazoline nitroxide radicals. Journal of Structural Chemistry, 1993, 34, 398-401.	1.0	1
56	Delocalization mechanism of ferromagnetic exchange interactions in complexes of copper(II) with nitroxyl radicals. Inorganic Chemistry, 1992, 31, 4118-4121.	4.0	66