Vladimir B Sovkov

List of Publications by Year
in descending order

63	585	567281	713466
papers	citations	15 h-index	21 g-index

64	64	64	182
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Experimental study of the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mn>3</mml:mn><mml:mmultiscripts><mml:mi mathvariant="normal">Î</mml:mi><mml:mi>g</mml:mi><mml:none /><mml:mprescripts /><mml:none /><mml:mn>3</mml:mn></mml:mmultiscripts></mml:math> and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mn>4</mml:mn><mml:mmultiscripts><mml:mi mathvariant="normal">Î£</mml:mi><mml:mi>g</mml:mi><mml:mo>+</mml:mo><mml:mprescripts />	2.5	4
2	Observation of photoassociation spectroscopy of ²³Na spinor Boseâ€“Einstein condensate. Physical Chemistry Chemical Physics, 2022, 24, 15135-15139.	2.8	1
3	Parametric Excitation of Ultracold Sodium Atoms in an Optical Dipole Trap. Photonics, 2022, 9, 442.	2.0	1
4	Two-photon Raman transition channels of NaCs predicted from ab initio calculations. Physical Review A, 2022, 105, .	2.5	0
5	The effects of Feshbach resonance on spectral shifts in photoassociation of Cs atoms. Physical Chemistry Chemical Physics, 2021, 23, 641-646.	2.8	2
6	Analysis of the hyperfine structure of the 13Î”g, 23Îg, and 33Î£g+ states of 6Li7Li. Journal of Quantitative Spectroscopy and Radiative Transfer, 2021, 270, 107665.	2.3	1
7	Fast, simple, all-optical production of sodium spinor condensates. Journal of Physics B: Atomic, Molecular and Optical Physics, 2021, 54, 155501.	1.5	3
8	Nonlinear laser-induced frequency shift in a 23Na spin-1 condensate. Optics Express, 2021, 29, 32892.	3.4	0
9	Laser-induced frequency shift in a spin-1 Boseâ€“Einstein condensate of sodium. Journal of Quantitative Spectroscopy and Radiative Transfer, 2021, 277, 107985.	2.3	0
10	Saturation of photoassociation in NaCs dark magneto-optical trap. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 240, 106678.	2.3	4
11	Hyperfine structure of the NaCs b³Î₂ state near the dissociation limit 3S_{1/2} + 6P_{3/2} observed with ultracold atomic photoassociation. Physical Chemistry Chemical Physics, 2020, 22, 3809-3816.	2.8	6
12	Bichromatic Photoassociation Spectroscopy for the Determination of Rotational Constants of Cs2 0 u + Long-Range State below the 6S1/2 + 6P1/2 Asymptote. Molecules, 2020, 25, 3963.	3.8	0
13	Analysis of the hyperfine structure of the Cs2 <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si11.svg"><mml:mrow><mml:msup><mml:mn>3</mml:mn><mml:mn>3</mml:mn></mml:msup><mml:msubsup><mml:mstyle mathvariant="normal"><mml:mi>Î£</mml:mi></mml:mstyle><mml:mi>g</mml:mi><mml:mo>+</mml:mo></mml:msubsup></mml:mrow>	2.5	5
14	Experimental study of the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msup><mml:mn>6</mml:mn><mml:mn>1</mml:mn></mml:msup><mml:msubsup><mml:mstyle mathvariant="normal">Î£</mml:mi><mml:mi>g</mml:mi><mml:mo>+</mml:mo></mml:msubsup></mml:mrow></mml:math> state of the rubidium dimer. Physical Review A, 2019, 99, .	2.5	10
15	Optical levitation-associated atomic loading in a dipole trap. Laser Physics, 2019, 29, 035505.	1.2	1
16	Renewed analysis of the hyperfine structure of the Na2 13Î”g state. AIP Advances, 2018, 8, 125322.	1.3	3
17	The Rb2 31Îg state: Observation and analysis. Journal of Chemical Physics, 2018, 149, 224303.	3.0	6
18	Nonadiabatic Coupling of Molecular States in Presence of Unobserved Perturbers: Modeling and Analysis. Journal of the Physical Society of Japan, 2018, 87, 024303.	1.6	1

#	Article	IF	Citations
19	Observation of photoassociation of ultracold sodium and cesium at the asymptote Na (3S1/2) + Cs (6P1/2). Journal of Chemical Physics, 2018, 148, 174304.	3.0	7
20	Experimental observation and determination of the laser-induced frequency shift of hyperfine levels of ultracold polar molecules. Physical Review A, 2017, 96, .	2.5	13
21	Manipulation of photoassociation of ultracold Cs atoms with tunable scattering length by external magnetic fields. Scientific Reports, 2017, 7, 13677.	3.3	6
22	Re-examination of the Cs2 ground singlet X1Î£g+ and triplet a3Î£u+ states. Journal of Chemical Physics, 2017, 147, 104301.	3.0	12
23	Observations and analysis with the spline-based Rydbergâ€“Kleinâ€“Rees approach for the 31Î£g+ state of Rb2. Journal of Chemical Physics, 2016, 144, 024308.	3.0	9
24	Experimental observation and numerical simulation of spectra of solid-anode X-ray tubes. Journal of Analytical Chemistry, 2016, 71, 471-475.	0.9	0
25	Observation and analysis of the hyperfine structure of near-dissociation levels of the NaCs<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>c</mml:mi><mml:mspace width="0.16em" /><mml:mmultiscripts><mml:mi mathvariant="normal">Î£</mml:mi><mml:none /><mml:mo>+</mml:mo><mml:mprescripts /><mml:none /><mml:mn>3</mml:mn></mml:mmultiscripts></mml:mrow></mml:math>state below the dissociation limit<mml:math	2.5	17
26	Matlab tool qOptimizerq: Construction and Optimization of Multi-Block Mathematical Models-Application to spectroscopy experiments with ultracold gases of alkali metals. , 2016, , .		1
27	Observation and deperturbation of near-dissociation ro-vibrational structure of the Cs2 state u+ (A1Î£u+â^¼b3Î+u) at the asymptote 6S1/2 + 6P1/2. Journal of Chemical Physics, 2015, 143, 124307.	3.0	12
28	New observation and combined analysis of the Cs2gâ^', u+, and 1g states at the asymptotes 6S1/2 + 6P1/2 and 6S1/2 + 6P3/2. Journal of Chemical Physics, 2014, 141, 244310.	3.0	19
29	Binding energies of the ground triplet state $a^3Sigma _u^+$a3Î£u+ of Rb2 and Cs2 in terms of the generalized Le Royâ€“Bernstein near-dissociation expansion. Journal of Chemical Physics, 2014, 140, 134307.	3.0	7
30	Multiparameter model functions in problems of approximating ab initio potentials and spectroscopic data of diatomic molecules. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2013, 114, 167-176.	0.6	10
31	Updated potential energy function of the Rb2â€^$a^3Sigma _u^+$a3Î£u+ state in the attractive and repulsive regions determined from its joint analysis with the 23Îg state. Journal of Chemical	3.0	25
32	Two-photon excitations of the Cs2 <mml:math altimg="si30.gif" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:sb="http://www.elsevier.com/xml/common/struct-bib/dtd" xmlns:ce="http://www.elsevier.c. Che	2.6	5
33	Joint analysis of the Cs2â€^$a^3Sigma _u^+$a3Î£u+ and 1g (33Î1g) states. Journal of Chemical Physics, 2011, 135, 024303.	3.0	17
34	The hyperfine structure analysis of the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si14.gif" display="inline" overflow="scroll"><mml:mrow><mml:msub><mml:mrow><mml:mtext>K</mml:mtext></mml:mrow><mml:mrow><mml:mn>2</mml:m width="0.35em" /><mml:msup><mml:mrow><mml:mn>2</mml:mn></mml:mrow><mml:mrow><mml:mn>3</mml:mn></mml:mrow></mml:msup><mm mathvariant="normal">Î£</mml:mi></mml:mrow><mml:mi>g</mml:mi></mml:mrow><mml:mr.	2.6	6
35	Experimental investigation of the Cs2â€^aâ€‰Î£3u+ triplet ground state: Multiparameter Morse long range potential analysis and molecular constants. Journal of Chemical Physics, 2009, 130, 051102.	3.0	45
36	Experimental investigation of the R85b2â€^aâ€‰Î£3u+ triplet ground state: Multiparameter Morse long range potential analysis. Journal of Chemical Physics, 2009, 131, 094505.	3.0	27

#	Article	IF	Citations
37	Observation and calculation of the Cs2â€ˆ2Î"1g3 and bÎu3 states. Journal of Chemical Physics, 2008, 128, 204313.	3.0	17
38	The K239 2Î£g+3 state: Observation and analysis. Journal of Chemical Physics, 2007, 126, 194314.	3.0	13
39	The <mml:math altimg="si23.gif" display="inline" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:sb="http://www.elsevier.com/xml/common/struct-bib/dtd" xmlns:ce="http://www.elsevier.com/xml	2.6	26
40	Observations and analysis of the K2 state using the infraredâ€"infrared double resonance spectroscopy. Chemical Physics, 2007, 332, 10-16.	1.9	8
41	Combined analysis of the PFOODR data on the a 3Î£ u + , 23Îg, 23Î£ g + , 33Îg, and 43Î£ g + states of the K2 molecule. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2007, 103, 723-727.	0.6	7
42	New Observation of Na2 43g+ State by Pulsed Perturbation Facilitated OpticalOptical Double Resonance Spectroscopy. Chinese Journal of Chemical Physics, 2006, 19, 11-14.	1.3	3
43	The K2 23Îg State:â€‰ New Observations and Analysis. Journal of Physical Chemistry A, 2006, 110, 11260-11264.	2.5	14
44	Analysis of the Na2 state above and below the 3s+3d atomic limit. Journal of Molecular Spectroscopy, 2006, 236, 35-41.	1.2	5
45	New experimental data on the K2 state analyzed with the multi-parameter approach. Journal of Molecular Spectroscopy, 2005, 234, 41-52.	1.2	25
46	Revision of the K2 33Îg and states: new vibrational numberings and new potential functions. Journal of Molecular Spectroscopy, 2005, 229, 122-130.	1.2	15
47	Experimental study of the K2392Îg3 state by perturbation facilitated infrared-infrared double resonance and two-photon excitation spectroscopy. Journal of Chemical Physics, 2005, 122, 074302.	3.0	21
48	Determination of the parameters of the potential well of a diatomic molecule with the use of the experimental spectrum of an electronic transition to a repulsive branch of the state under study. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2004, 96, 21-24.	0.6	3
49	The state of Na2: observation and assignment. Journal of Molecular Spectroscopy, 2004, 225, 33-38.	1.2	14
50	Joint analysis of the attractive and repulsive regions of the Na2â€‰aâ€Š3Î£u+ state potential: A new empirical potential energy curve. Journal of Chemical Physics, 2003, 118, 8242-8247.	3.0	20
51	Use of Boundâ€"Free Structured Spectra in Determining RKR Potentials: The 43Îg State of Na2. Journal of Molecular Spectroscopy, 2001, 209, 116-121.	1.2	16
52	Analysis of the Na2 23Î£g+â†'a3Î£u+ continua: Potentials and transition moment function. Journal of Chemical Physics, 2001, 114, 6077-6085.	3.0	15
53	Split operator method for the nonadiabatic (J=0) bound states and (Aâ†X) absorption spectrum of NO2. Journal of Chemical Physics, 2001, 115, 6450-6458.	3.0	16
54	Exact expressions for the potential functions of a molecule in terms of the probability amplitudes of electron transitions and their utilization in the inverse spectroscopic problem. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2000, 89, 506-509.	0.6	6

#	Article	IF	Citations
55	Franck-Condon factor phase method for determining the potentials of bound states of piatomic molecules. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2000, 88, 852-856.	0.6	4
56	Exact Expressions for the Potential Functions of a Molecule in Terms of the Probability Amplitudes of Electron Transitions and Their Utilization in the Inverse Spectroscopic Problem. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2000, 89, 506.	0.6	2
57	New Vibrational Numbering and Potential Energy Curve for the 33ÎgElectronic State of the Li2Molecule. Journal of Molecular Spectroscopy, 1999, 194, 147-155.	1.2	26
58	<title>Inversion procedures for the PFOODR experimental data on the Li<formula><inf><roman>2</roman></inf></formula> molecule</title>. , 1999, , .		4
59	Inversion procedures for bound-free diatomic transition intensities: application to the PFOODR spectra of7Li 2. , 1997, 3090, 150.		3
60	An IPA procedure for bound-continuum diatomic transition intensities. Chemical Physics, 1996, 213, 295-301.	1.9	14
61	Approximation of structureless bands in the electron spectra of molecules using Pearson curves. Journal of Applied Spectroscopy, 1990, 53, 827-830.	0.7	0
62	Structureless band approximation in electronic spectra of molecules using edgeworth series. Journal of Applied Spectroscopy, 1990, 53, 757-760.	0.7	0
63	Superfluid to Mott-insulator transition in a 1D optical lattice. Chinese Physics B, 0, , .	1.4	0