

Svetlana Kotochigova

List of Publications by Year in descending order

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Version: 2024-02-01

53

papers

1,680

citations

293460

24

h-index

312153

41

g-index

53

all docs

53

docs citations

53

times ranked

1366

citing authors

#	ARTICLE	IF	CITATIONS
1	Prospects for assembling ultracold radioactive molecules from laser-cooled atoms. <i>New Journal of Physics</i> , 2022, 24, 025005.	1.2	10
2	Roaming pathways and survival probability in real-time collisional dynamics of cold and controlled bialkali molecules. <i>Scientific Reports</i> , 2021, 11, 10598.	1.6	8
3	Floquet engineering ultracold polar molecules to simulate topological insulators. <i>Physical Review A</i> , 2021, 103, .	1.0	13
4	Realizing Hopf Insulators in Dipolar Spin Systems. <i>Physical Review Letters</i> , 2021, 127, 015301.	2.9	18
5	Quantum Spin State Selectivity and Magnetic Tuning of Ultracold Chemical Reactions of Triplet Alkali-Metal Dimers with Alkali-Metal Atoms. <i>Physical Review Letters</i> , 2021, 127, 103402.	2.9	13
6	Relativistic aspects of orbital and magnetic anisotropies in the chemical bonding and structure of lanthanide molecules. <i>New Journal of Physics</i> , 2021, 23, 085007.	1.2	7
7	Non-adiabatic quantum interference in the ultracold $\text{Li} + \text{LiNa} \rightarrow \text{Li}_{2\text{Na}} + \text{Na}$ reaction. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 5096-5112.	1.3	25
8	Quantifying entanglement in cluster states built with error-prone interactions. <i>Physical Review Research</i> , 2021, 3, .	1.3	0
9	$\text{K}_2 \text{Li}_{2\text{Na}} \xrightarrow{\text{mmprescripts}} \text{Li}_{2\text{Na}}$	2.9	18
10	Effects of conical intersections on hyperfine quenching of hydroxyl OH in collision with an ultracold Sr atom. <i>Scientific Reports</i> , 2020, 10, 14130.	1.6	1
11	Nondestructive dispersive imaging of rotationally excited ultracold molecules. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 20531-20544.	1.3	6
12	$\text{Feshbach Resonances in } \text{Li}_{2\text{Na}} \text{ -Wave Three-Body Recombination within Fermi-Fermi Mixtures of Open-Shell Atoms}$	2.8	33
13	Enhanced molecular yield from a cryogenic buffer gas beam source via excited state chemistry. <i>New Journal of Physics</i> , 2020, 22, 022002.	1.2	31
14	Photon-mediated charge exchange reactions between ^{39}K atoms and $^{40}\text{Ca}^{+}$ ions in a hybrid trap. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 10870-10881.	1.3	7
15	Prospects for laser cooling of polyatomic molecules with increasing complexity. <i>Physical Review Research</i> , 2020, 2, .	1.3	32
16	Two-photon photoassociation spectroscopy of the YbLi molecular ground state. <i>Physical Review A</i> , 2019, 99, .	1.0	11
17	Making perfectly controlled arrays of molecules at rest. <i>Science</i> , 2019, 365, 1079-1079.	6.0	0
18	Engineering Excited-State Interactions at Ultracold Temperatures. <i>Physical Review Letters</i> , 2019, 122, 233401.	2.9	8

#	ARTICLE		IF	CITATIONS
19	Universal Scattering of Ultracold Atoms and Molecules in Optical Potentials. <i>Atoms</i> , 2019, 7, 36.	0.7	9	
20	Excitation-assisted nonadiabatic charge-transfer reaction in a mixed atom-ion system. <i>Physical Review A</i> , 2019, 99, .	1.0	9	
21	Emulating optical cycling centers in polyatomic molecules. <i>Communications Physics</i> , 2019, 2, .	2.0	18	
22	Fractal universality in near-threshold magnetic lanthanide dimers. <i>Science Advances</i> , 2018, 4, eaap8308.	4.7	7	
23	Extending Rotational Coherence of Interacting Polar Molecules in a Spin-Decoupled Magic Trap. <i>Physical Review Letters</i> , 2018, 121, 253401.	2.9	50	
24	Orbital quantum magnetism in spin dynamics of strongly interacting magnetic lanthanide atoms. <i>Physical Review A</i> , 2018, 97, .	1.0	6	
25	Laser controlled charge-transfer reaction at low temperatures. <i>Journal of Chemical Physics</i> , 2017, 146, 084304.	1.2	8	
26	Pendular trapping conditions for ultracold polar molecules enforced by external electric fields. <i>Physical Review A</i> , 2017, 95, .	1.0	7	
27	Explanation of efficient quenching of molecular ion vibrational motion by ultracold atoms. <i>Nature Communications</i> , 2016, 7, 11234.	5.8	30	
28	Photoassociative production of ultracold heteronuclear YbLi Physical Review A, 2016, 94, .			
29	Photodissociation spectroscopy of the dysprosium monochloride molecular ion. <i>Journal of Chemical Physics</i> , 2015, 143, 124309.	1.2	4	
30	Magnetic field dependent interactions in an ultracold $\text{Li}^{+}\text{Yb}^{3+}\text{P}^{2+}$ mixture. <i>New Journal of Physics</i> , 2015, 17, 055007.	1.2	19	
31	Magnetic control of ultra-cold ^{6}Li and $^{174}\text{Yb}^{3+}\text{P}^{2+}$ atom mixtures with Feshbach resonances. <i>New Journal of Physics</i> , 2015, 17, 045010.	1.2	11	
32	Ultracold Heteronuclear Mixture of Ground and Excited State Atoms. <i>Physical Review Letters</i> , 2014, 112, 033201.	2.9	44	
33	Action spectroscopy of SrCl^{+} using an integrated ion trap time-of-flight mass spectrometer. <i>Journal of Chemical Physics</i> , 2014, 141, 014309.	1.2	9	
34	Quantum chaos in ultracold collisions of gas-phase erbium atoms. <i>Nature</i> , 2014, 507, 475-479.	13.7	196	
35	Controlling interactions between highly magnetic atoms with Feshbach resonances. <i>Reports on Progress in Physics</i> , 2014, 77, 093901.	8.1	36	
36	External field control of spin-dependent rotational decoherence of ultracold polar molecules. <i>Molecular Physics</i> , 2013, 111, 1731-1737.	0.8	6	

#	ARTICLE	IF	CITATIONS
37	Evidence for sympathetic vibrational cooling of translationally cold molecules. <i>Nature</i> , 2013, 495, 490-494.	13.7	103
38	Role of Electronic Excitations in Ground-State-Forbidden Inelastic Collisions Between Ultracold Atoms and Ions. <i>Physical Review Letters</i> , 2012, 109, 223002.	2.9	52
39	Anisotropy-Induced Feshbach Resonances in a Quantum Dipolar Gas of Highly Magnetic Atoms. <i>Physical Review Letters</i> , 2012, 109, 103002.	2.9	60
40	Towards the production of ultracold ground-state RbCs molecules: Feshbach resonances, weakly bound states, and the coupled-channel model. <i>Physical Review A</i> , 2012, 85, .	1.0	131
41	Trapping molecular ions formed via photo-associative ionization of ultracold atoms. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 18859.	1.3	29
42	Anisotropy in the interaction of ultracold dysprosium. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 19165.	1.3	31
43	Molecular-ion trap-depletion spectroscopy of BaCl _n . xml�:math xmlns:math="http://www.w3.org/1998/Math/MathML" display="inline"><math>\langle mml:mrow><mml:msup><mml:mrow>/><mml:mrow><mml:mo>+</mml:mo></mml:mrow></mml:msup></mml:mrow></mml:math>. <i>Physical Review A</i> , 2011, 83, .	1.0	26
44	Ab initio properties of Li-group-II molecules for ultracold matter studies. <i>Journal of Chemical Physics</i> , 2011, 135, 164108. <i>Measurement of a Large Chemical Reaction Rate between Ultracold Closed-Shell</i> xml�:math xmlns:math="http://www.w3.org/1998/Math/MathML" display="inline"><math>\langle mml:mmultiscripts><mml:mi>Ca</mml:mi><mml:mprescripts /><mml:none /><mml:mn>40</mml:mn></mml:mmultiscripts></mml:math> Atoms and Open-Shell xml�:math xmlns:math="http://www.w3.org/1998/Math/MathML" display="inline"><math>\langle mml:mmultiscripts><mml:mi>Yb</mml:mi><mml:mprescripts /><mml:none /><mml:mn>1</mml:mn></mml:mmultiscripts></mml:math>	1.2	45
45	Electric-field-dependent dynamic polarizability and state-insensitive conditions for optical trapping of diatomic polar molecules. <i>Physical Review A</i> , 2010, 82, .	2.9	127
46	Dispersion interactions and reactive collisions of ultracold polar molecules. <i>New Journal of Physics</i> , 2010, 12, 073041.	1.0	50
47	Multi-channel modelling of the formation of vibrationally cold polar KRb molecules. <i>New Journal of Physics</i> , 2009, 11, 055043.	1.2	64
48	Relativistic electronic structure of the Sr ₂ molecule. <i>Journal of Chemical Physics</i> , 2008, 128, 024303.	1.2	26
49	Chapter 13 Extensive Calculations of High-Precision Energy Levels in Hydrogen and Deuterium Through a Least-Squares Adjustment. <i>Advances in Quantum Chemistry</i> , 2008, 53, 253-271.	0.4	1
50	Prospects for Making Polar Molecules with Microwave Fields. <i>Physical Review Letters</i> , 2007, 99, 073003.	2.9	20
51	Precise Calculation of Transition Frequencies of Hydrogen and Deuterium Based on a Least-Squares Analysis. <i>Physical Review Letters</i> , 2005, 95, 163003.	2.9	40
52	Local-density-functional calculations of the energy of atoms. <i>Physical Review A</i> , 1997, 55, 191-199.	1.0	114