

Vitaly V Kresin

List of Publications by Year in descending order

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107
papers

2,883
citations

236925

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108
all docs

108
docs citations

108
times ranked

1740
citing authors

#	ARTICLE	IF	CITATIONS
1	High-Temperature Superconductivity in Size-Selected Metal Nanoclusters: Gas-Phase Spectroscopy and Prototype Devices for Deposition Studies. <i>Journal of Superconductivity and Novel Magnetism</i> , 2022, 35, 997-1004.	1.8	2
2	Shells in CO ₂ clusters. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 5343-5350.	2.8	2
3	Probing the presence and absence of metal-fullerene electron transfer reactions in helium nanodroplets by deflection measurements. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 10378-10383.	2.8	1
4	Kinetic energy deposited into a nanodroplet, cluster, or molecule in a sticking collision with background gas. <i>Journal of Chemical Physics</i> , 2020, 153, 196101.	3.0	3
5	Electric deflection of imidazole dimers and trimers in helium nanodroplets: Dipole moments, structure, and fragmentation. <i>Journal of Chemical Physics</i> , 2020, 153, 081101.	3.0	3
6	Strong permanent magnet gradient deflector for Stern–Gerlach-type experiments on molecular beams. <i>Review of Scientific Instruments</i> , 2020, 91, 053202.	1.3	5
7	Decoration of suspended single-walled carbon nanotubes with soft-landed size-selected metal nanoparticles. <i>Thin Solid Films</i> , 2020, 699, 137907.	1.8	1
8	Oriented Polar Molecules Trapped in Cold Helium Nanodroplets: Electrostatic Deflection, Size Separation, and Charge Migration. <i>Physical Review Letters</i> , 2019, 123, 043203.	7.8	10
9	Direct detection of polar structure formation in helium nanodroplets by beam deflection measurements. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 20764-20769.	2.8	4
10	Controlled deposition of size-selected MnO nanoparticle thin films for water splitting applications: reduction of onset potential with particle size. <i>Nanotechnology</i> , 2018, 29, 215603.	2.6	6
11	Nanoclusters as a new family of high temperature superconductors (Conference Presentation). , 2017, , .		0
12	Influence of source parameters on the growth of metal nanoparticles by sputter-gas-aggregation. <i>Applied Nanoscience (Switzerland)</i> , 2017, 7, 875-883.	3.1	29
13	Transparency of graphene and other direct-gap two-dimensional materials. <i>Physical Review B</i> , 2016, 94, .	3.2	20
14	Water cluster fragmentation probed by pickup experiments. <i>Journal of Chemical Physics</i> , 2016, 145, 104304.	3.0	16
15	Energies and densities of electrons confined in elliptical and ellipsoidal quantum dots. <i>Journal of Physics Condensed Matter</i> , 2016, 28, 395302.	1.8	4
16	Electrostatic Deflection of a Molecular Beam of Massive Neutral Particles: Fully Field-Oriented Polar Molecules within Superfluid Nanodroplets. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 4879-4883.	4.6	12
17	Formation of manganese nanoclusters in a sputtering/aggregation source and the roles of individual operating parameters. <i>Proceedings of SPIE</i> , 2016, , .	0.8	2
18	Note: Contamination-free loading of lithium metal into a nozzle source. <i>Review of Scientific Instruments</i> , 2016, 87, 066105.	1.3	2

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19	Spectroscopy of metal ϵ -superatom nanoclusters and high- T electron pairing. Physical Review B, 2015, 92, .	3.0	20
20	Proton transfer in histidine-tryptophan heterodimers embedded in helium droplets. Journal of Chemical Physics, 2015, 142, 114306.	3.0	11
21	Nanocluster ionization energies and work function of aluminum, and their temperature dependence. Journal of Chemical Physics, 2015, 143, 164313.	3.0	15
22	Photoionization Yields, Appearance Energies, and Densities of States of Copper Clusters. Journal of Physical Chemistry C, 2015, 119, 11178-11183.	3.1	8
23	Electric Dipole Moments of Nanosolvated Acid Molecules in Water Clusters. Physical Review Letters, 2015, 114, 043401.	7.8	23
24	A Novel Feature in Aluminum Cluster Photoionization Spectra and Possibility of Electron Pairing at $T \approx 100$ K. Nano Letters, 2015, 15, 1410-1413.	9.1	26
25	Flat Thomas-Fermi artificial atoms. Europhysics Letters, 2014, 107, 37001.	2.0	1
26	FORMATION OF UNUSUAL COPPER CLUSTERS IN HELIUM NANODROPLETS. International Journal of Nanoscience, 2013, 12, 1350014.	0.7	7
27	Beam broadening of polar molecules and clusters in deflection experiments. Journal of Chemical Physics, 2012, 136, 014301.	3.0	4
28	Photoionization profiles of metal clusters and the Fowler formula. Physical Review A, 2012, 85, .	2.5	16
29	Double and triple ionization of silver clusters by electron impact. Journal of Physics Condensed Matter, 2012, 24, 104009.	1.8	5
30	Slow Electron Attachment as a Probe of Cluster Evaporation Processes. Journal of Physical Chemistry A, 2011, 115, 6961-6972.	2.5	12
31	Photoabsorption of $Ag_N N^{1/4}$ clusters. Compact to Multicenter Aggregation. Physical Review Letters, 2011, 106, 233401.	7.8	71
32	Critical sizes for the submersion of alkali clusters into liquid helium. Physical Review B, 2010, 81, .	3.2	33
33	Photoabsorption by Volume Plasmons in Metal Nanoclusters. Physical Review Letters, 2009, 102, 156802.	7.8	49
34	Photoabsorption resonances of Na_{20} , $Na_{21}Cl$ and $Na_{22}Cl_2$ clusters. European Physical Journal D, 2009, 52, 183-185.	1.3	1
35	Electric Dipole Moments of Nitric Acid-Water Complexes Measured by Cluster Beam Deflection. AIP Conference Proceedings, 2009, , .	0.4	4
36	Orientation of dipole molecules and clusters upon adiabatic entry into an external field. Journal of Chemical Physics, 2008, 129, 024101.	3.0	16

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37	Evaporative attachment of slow electrons to alkali-metal nanoclusters. Physical Review A, 2008, 77, .	2.5	5
38	Suppressing the fragmentation of fragile molecules in helium nanodroplets by coembedding with water: Possible role of the electric dipole moment. Journal of Chemical Physics, 2008, 128, 074303.	3.0	23
39	Photodissociation of hydrogen halide molecules on free ice nanoparticles. Journal of Chemical Physics, 2007, 126, 071101.	3.0	37
40	Surface location of alkaline-earth-metal-atom impurities on helium nanodroplets. Physical Review A, 2007, 76, .	2.5	31
41	Electrostatic deflection of the water molecule: A fundamental asymmetric rotor. Physical Review A, 2007, 75, .	2.5	26
42	Density of states of helium droplets. Physical Review B, 2007, 76, .	3.2	7
43	Changing the fragmentation pattern of molecules in helium nanodroplets by co-embedding with water. European Physical Journal D, 2007, 43, 109-112.	1.3	13
44	Surface-impact ionization of alkali nanoparticles. International Journal of Mass Spectrometry, 2006, 252, 142-144.	1.5	1
45	Electric Dipole Moments of Water Clusters from a Beam Deflection Measurement. Physical Review Letters, 2006, 97, 123401.	7.8	56
46	Loss of chlorine in mass spectra of DCl picked up by water clusters in a beam. Journal of Chemical Physics, 2006, 124, 146102.	3.0	6
47	Fast electronic relaxation in metal nanoclusters via excitation of coherent shape deformations. Physical Review B, 2006, 73, .	3.2	14
48	Obtaining colder ensembles of free clusters by using evaporation and recoil. European Physical Journal D, 2005, 32, 339-345.	1.3	0
49	Pick-up cell for cluster beam experiments. Review of Scientific Instruments, 2005, 76, 056104.	1.3	12
50	Amino-acid and water molecules adsorbed on water clusters in a beam. Journal of Chemical Physics, 2005, 123, 074301.	3.0	16
51	PHOTOIONIZATION OF ALKALI NANOPARTICLES AND CLUSTERS. , 2004, , 223-232.		0
52	Intramolecular quantum chaos in doped helium nanodroplets. Chemical Physics Letters, 2003, 375, 253-260.	2.6	6
53	Work functions, ionization potentials, and in between: Scaling relations based on the image-charge model. Physical Review B, 2003, 67, .	3.2	34
54	Unusual pickup statistics of high-spin alkali agglomerates on helium nanodroplets. Journal of Chemical Physics, 2003, 119, 11124-11129.	3.0	28

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55	Photoionization threshold shapes of metal clusters. Journal of Chemical Physics, 2003, 118, 7141-7143.	3.0	7
56	Velocity distribution measurement and two-wire field effects for electric deflection of a neutral supersonic cluster beam. Review of Scientific Instruments, 2002, 73, 1204-1211.	1.3	21
57	Temperature-dependent work functions of free alkali-metal nanoparticles. Physical Review B, 2002, 66, .	3.2	28
58	Growing ultracold sodium clusters by using helium nanodroplets. Chemical Physics Letters, 2002, 353, 89-94.	2.6	25
59	Photo-ionization efficiency curves of alkali nanoclusters in a beam and determination of metal work functions. Applied Physics B: Lasers and Optics, 2001, 73, 407-410.	2.2	18
60	An inelastic threshold in electron - alkali cluster collisions. European Physical Journal D, 2001, 16, 99-102.	1.3	1
61	Low-energy electron capture by free C60 and the importance of polarization interaction. Chemical Physics Letters, 2001, 337, 55-60.	2.6	27
62	A measurement of the polarizability of sodium clusters. Physical Review A, 2001, 64, .	2.5	57
63	Negative-ion formation in collisions of low-energy electrons with neutral sodium clusters. Physical Review A, 2000, 62, .	2.5	7
64	Electron Capture by the Image Charge of a Metal Nanoparticle. Physical Review Letters, 2000, 85, 2729-2732.	7.8	32
65	Polarization forces in collisions between low-energy electrons and sodium clusters. Physical Review A, 1999, 60, 3071-3075.	2.5	24
66	Measuring cluster temperatures via kinetic-energy release. Physical Review A, 1999, 59, 495-502.	2.5	32
67	Stability, evaporation, and temperature of metal clusters. Journal of Non-Crystalline Solids, 1999, 250-252, 191-198.	3.1	2
68	Walter David Knight: An appreciation. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1999, 79, 1225-1229.	0.6	0
69	Long-range polarization interactions of metal clusters. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1999, 79, 1401-1411.	0.6	13
70	To Walter D. Knight on his eightieth birthday. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1999, 79, 1223-1224.	0.6	0
71	Ultraviolet photoabsorption spectra of silver and gold nanoclusters. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1998, 78, 385-396.	0.6	21
72	Comment on "Shape Phase Transitions in the Absorption Spectra of Atomic Clusters". Physical Review Letters, 1998, 81, 5702-5702.	7.8	4

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73	Long-range van der Waals forces between alkali clusters and atoms. Journal of Chemical Physics, 1998, 108, 6660-6666.	3.0	13
74	Strong long-range forces between C ₆₀ and Na atoms and microclusters. Physical Review A, 1998, 57, 383-387.	2.5	20
75	Ordered States in Disordered Particles: Electronic Shells and Structural Effects in Metal Clusters. Zeitschrift Fur Physikalische Chemie, 1998, 203, 57-72.	2.8	6
76	Quantized Electronic States in Metal Microclusters: Electronic Shells, Structural Effects, and Correlations. , 1998, , 245-261.		4
77	Capture of lithium by He clusters: Surface adsorption, Penning ionization, and formation of HeLi ⁺ . Journal of Chemical Physics, 1997, 107, 2839-2844.	3.0	47
78	Quantum transition theory and dynamics of ionic molecule formation in cluster collisions. Zeitschrift Für Physik D-Atoms Molecules and Clusters, 1997, 40, 381-384.	1.0	2
79	Quantum transition theory and dynamics of ionic molecule formation in cluster collisions. , 1997, , 381-384.		0
80	Low-frequency "demon"-like excitations in small metal particles and their interaction with light. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1996, 74, 301-307.	0.6	0
81	Collective resonances in silver clusters: Role of electrons and the polarization-free surface layer. Physical Review B, 1995, 51, 1844-1849.	3.2	96
82	van der Waals interaction of finite metallic systems: A study of cluster-atom scattering. Physical Review A, 1994, 49, 2696-2701.	2.5	14
83	Conduction-band plasmons in cluster-type compounds: Application to fullerides and quantum-dot arrays. Physical Review B, 1994, 49, 2715-2720.	3.2	15
84	Electron-cluster interactions. Hyperfine Interactions, 1994, 89, 253-262.	0.5	4
85	van der Waals forces between metal microclusters and fullerenes. Physical Review A, 1994, 49, R4293-R4296.	2.5	22
86	Low-Energy Electron Collisions with Metal Clusters: Electron Capture and Cluster Fragmentation. , 1994, , 183-193.		2
87	Elastic and reactive collisions of atoms and molecules with neutral alkali clusters. Zeitschrift Für Physik D-Atoms Molecules and Clusters, 1993, 26, 13-16.	1.0	3
88	Scattering of neutral metal clusters: Long-range interactions and response properties. Journal of Chemical Physics, 1993, 98, 6982-6988.	3.0	24
89	Electron distribution and collective resonances in nonspherical metal clusters. Physical Review B, 1992, 45, 14321-14327.	3.2	11
90	Photodisintegration sum rule and electron distribution in metal clusters. Physical Review B, 1992, 46, 9812-9814.	3.2	0

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91	Analysis of Collective Resonances in Clusters: Metals and Carbon. Materials Research Society Symposia Proceedings, 1992, 272, 177.	0.1	0
92	Collective resonances and response properties of electrons in metal clusters. Physics Reports, 1992, 220, 1-52.	25.6	177
93	Inelastic Collisions of Electrons with Small Metal Clusters. , 1992, , 957-962.		0
94	Electron scattering and electromagnetic response properties of metal clusters. , 1992, , 214-221.		0
95	Surface and volume collective modes in small clusters and their interaction with single-particle levels. Zeitschrift für Physik D-Atoms Molecules and Clusters, 1991, 19, 105-107.	1.0	10
96	Loading system for alkali metal sources. Review of Scientific Instruments, 1991, 62, 2046-2047.	1.3	3
97	Electron-impact spectroscopy of small metal clusters: Inelastic collisions. Physical Review A, 1991, 44, R4106-R4109.	2.5	8
98	Photoabsorption spectra of sodium clusters. Physical Review B, 1991, 43, 4565-4572.	3.2	204
99	Photoabsorption of small metal clusters: Surface and volume modes. Physical Review B, 1990, 42, 3247-3252.	3.2	34
100	Static electric polarizabilities and collective resonance frequencies of small metal clusters. Physical Review B, 1989, 39, 3042-3046.	3.2	68
101	Surface plasma resonances in free metal clusters. Physical Review B, 1989, 40, 5417-5427.	3.2	268
102	Collective resonance frequencies of metal cluster ions. Physical Review B, 1989, 40, 12507-12508.	3.2	29
103	Collective resonance frequencies in metal clusters. Physics Letters, Section A: General, Atomic and Solid State Physics, 1988, 133, 89-90.	2.1	13
104	Beam depletion method for measuring velocity distributions of cluster beams. Review of Scientific Instruments, 1988, 59, 1965-1970.	1.3	19
105	Electronic structure of small metal clusters: Thomas-Fermi statistical theory. Physical Review B, 1988, 38, 3741-3746.	3.2	46
106	Collective dipole oscillations in small sodium clusters. Physical Review Letters, 1987, 59, 1805-1808.	7.8	323
107	SDI, Lysenko: Fair to Compare?. Physics Today, 1987, 40, 13-15.	0.3	0