

Vladimir Khmelenko

List of Publications by Year in descending order

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papers

928
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516561

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76
all docs

76
docs citations

76
times ranked

280
citing authors

#	ARTICLE	IF	CITATIONS
1	Inert-Gas Solids with Nanoscale Porosity. Physical Review Letters, 1997, 79, 1774-1777.	2.9	90
2	Structural studies of impurity-helium solids. Physical Review B, 2001, 65, .	1.1	65
3	Noble-Gas Nanoclusters with Fivefold Symmetry Stabilized in Superfluid Helium. Physical Review Letters, 2007, 98, 195506.	2.9	47
4	Deuterium atoms and molecules in nanoclusters of molecular deuterium. Physical Review B, 2004, 69, .	1.1	38
5	Observation of the fcc-to-hcp Transition in Ensembles of Argon Nanoclusters. Physical Review Letters, 2012, 109, 245505.	2.9	36
6	Hydrogen Atoms in Impurity-Helium Solids. Physical Review Letters, 2002, 89, 175301.	2.9	33
7	Recent Progress in Studies of Nanostructured Impurity- Helium Solids. Journal of Low Temperature Physics, 2007, 148, 1-31.	0.6	29
8	Exotic Behavior of Hydrogen Atoms in Solid H ₂ at Temperatures below 1 ÅK. Physical Review Letters, 2006, 97, 095301.	2.9	28
9	Magnetic resonance study of H atoms in thin films of H_2 at temperatures below 1 K. Physical Review B, 2010, 81, .	1.1	26
10	Study of the stabilization and recombination of nitrogen atoms in impurity- helium condensates. Low Temperature Physics, 2005, 31, 547-555.	0.2	24
11	Stabilization of High Concentrations of Nitrogen Atoms in Impurity-Helium Solids. Journal of Low Temperature Physics, 2004, 134, 199-204.	0.6	22
12	Sound propagation in liquid He in impurity- helium solids. Low Temperature Physics, 2000, 26, 641-648.	0.2	21
13	Experimental cell for molecular beam deposition and magnetic resonance studies of matrix isolated radicals at temperatures below 1 K. Review of Scientific Instruments, 2014, 85, 053902.	0.6	21
14	Stabilization of high-density atomic hydrogen in H_2 at $T < 0.5$ ÅK. Physical Review B, 2009, 79, .	1.1	19
15	Bose-Einstein Condensation of Magnons in Atomic Hydrogen Gas. Physical Review Letters, 2015, 114, 125304.	2.9	18
16	Analysis of decomposition of impurity- helium solid phase. Low Temperature Physics, 1997, 23, 567-577.	0.2	17
17	Investigations of Ultrasound Propagation in Porous Impurity-Helium Solids. Journal of Low Temperature Physics, 2000, 119, 357-366.	0.6	17
18	ESR investigation of hydrogen and deuterium atoms in impurity-helium solids. Low Temperature Physics, 2003, 29, 505-509.	0.2	17

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19	Dynamics of thermoluminescence spectra of impurity ⁺ helium condensates containing stabilized nitrogen and oxygen atoms. <i>Low Temperature Physics</i> , 2012, 38, 688-699.	0.2	17
20	Stabilization of hydrogen atoms in aggregates of krypton nanoclusters immersed in superfluid helium. <i>Physical Review B</i> , 2009, 79, .	1.1	16
21	Magnetic Resonance Studies of Impurity-Helium Solids Containing Hydrogen and Deuterium Impurities. <i>Journal of Low Temperature Physics</i> , 2002, 128, 37-52.	0.6	15
22	Pulse Electron Spin Resonance Studies of H and D Atoms in Impurity-Helium Solids. <i>Journal of Low Temperature Physics</i> , 2008, 150, 516-524.	0.6	15
23	Investigation of Ultrasound Attenuation in Impurity-Helium Solids Containing Liquid Helium. <i>Journal of Low Temperature Physics</i> , 2000, 121, 671-676.	0.6	14
24	Tunnelling chemical reactions of hydrogen isotopes in quantum solids. <i>Russian Chemical Reviews</i> , 2007, 76, 1107-1121.	2.5	14
25	ESR studies of nitrogen atoms stabilized in aggregates of krypton ⁺ nitrogen nanoclusters immersed in superfluid helium. <i>Low Temperature Physics</i> , 2012, 38, 1037-1042.	0.2	14
26	Optical and Electron Spin Resonance Studies of Xenon ⁺ Nitrogen ⁺ Helium Condensates Containing Nitrogen and Oxygen Atoms. <i>Journal of Physical Chemistry A</i> , 2015, 119, 2438-2448.	1.1	14
27	Spectroscopic observation of nitrogen anions N ⁻ in solid matrices. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 16013-16020.	1.3	14
28	ESR and X-ray Investigations of Deuterium Atoms and Molecules in Impurity-Helium Solids. <i>Journal of Low Temperature Physics</i> , 2004, 134, 169-174.	0.6	13
29	Stabilization of H and D atoms in krypton ⁺ helium nanocondensates. <i>Low Temperature Physics</i> , 2010, 36, 382-391.	0.2	12
30	X-Ray Studies of Structural Changes of Impurity-Helium Solids. <i>Journal of Low Temperature Physics</i> , 2002, 126, 235-240.	0.6	11
31	Energy Release Channels During Destruction of Impurity-Helium Condensates. <i>Journal of Low Temperature Physics</i> , 2013, 171, 302-308.	0.6	11
32	Atomic Hydrogen in Thick H ₂ Films at Temperatures 0.05 ⁺ 2 ⁺ K. <i>Journal of Low Temperature Physics</i> , 2011, 162, 96-104.	0.6	10
33	Luminescence of Oxygen Atoms Stimulated by Metastable Helium at Cryogenic Temperatures. <i>Physical Review Letters</i> , 2013, 111, 183002.	2.9	10
34	Comparative study of thermo-stimulated luminescence and electron emission of nitrogen nanoclusters and films. <i>Low Temperature Physics</i> , 2013, 39, 451-455.	0.2	9
35	Dynamic Nuclear Polarization of High-Density Atomic Hydrogen in Solid Mixtures of Molecular Hydrogen Isotopes. <i>Physical Review Letters</i> , 2014, 113, 265303.	2.9	9
36	ESR study of atomic hydrogen and tritium in solid T ₂ and T ₂ :H ₂ matrices below 1 K. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 2834-2842.	1.3	9

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37	Thermoluminescence Dynamics During Destructions of Porous Structures Formed by Nitrogen Nanoclusters in Bulk Superfluid Helium. Journal of Low Temperature Physics, 2016, 185, 269-286.	0.6	8
38	Luminescence of Molecular Nitrogen Nanoclusters Containing Stabilized Atoms. Journal of Physical Chemistry A, 2017, 121, 9045-9057.	1.1	8
39	Electron spin resonance study of atomic hydrogen stabilized in solid neon below 1 K. Physical Review B, 2018, 97, .	1.1	8
40	Electron Spin Resonance Studies of Nitrogen Atoms Stabilized in Impurity-Helium Condensates. Journal of Low Temperature Physics, 2018, 192, 224-240.	0.6	8
41	Feasibility of the construction of an electric-discharge excimer laser with a condensed rare gas as the active medium. Quantum Electronics, 1994, 24, 209-215.	0.3	7
42	Impurity-Helium Solids: Chemistry and Physics at 1.5 K. Journal of Low Temperature Physics, 2004, 134, 133-143.	0.6	7
43	Stabilization of H and D atoms in Aggregates of Kr Nanoclusters Immersed in Superfluid Helium. Journal of Low Temperature Physics, 2010, 158, 468-477.	0.6	7
44	Experimental setup for investigation of nanoclusters at cryogenic temperatures by electron spin resonance and optical spectroscopies. Review of Scientific Instruments, 2014, 85, 073906.	0.6	7
45	Percolation in aggregates of nanoclusters immersed in superfluid helium. Physical Review B, 2014, 89, .	1.1	6
46	Optical spectroscopy and current detection during warm-up and destruction of impurity- 4 He condensates. Low Temperature Physics, 2015, 41, 419-423.	0.2	6
47	Tunneling chemical exchange reaction $D + HD \rightleftharpoons D_2 + H$ in solid HD and D2 at temperatures below 1 K. Physical Chemistry Chemical Physics, 2016, 18, 29600-29606.	1.3	6
48	Matrix Isolation of H Atoms at Low Temperatures. Journal of Low Temperature Physics, 2011, 162, 105-120.	0.6	5
49	Quantum vortices and thermally induced luminescence of nitrogen nanoclusters immersed in liquid helium. Physical Review B, 2017, 95, .	1.1	5
50	Formation of Nuclear-Polarized Phases of H Atoms Embedded in Solid 3 He. Physical Review Letters, 2019, 122, 225301.	2.9	5
51	Experimental cell with a Fabry-Pérot resonator tuned <i>in situ</i> for magnetic resonance studies of matrix-isolated radicals at temperatures below 1 K. Review of Scientific Instruments, 2020, 91, 063901.	0.6	4
52	Purely Spatial Quantum Diffusion of H Atoms in Solid 3 He. Physical Review Letters, 2021, 126, 195301.	2.9	4
53	Purely spatial diffusion of H atoms in solid normal- and para-hydrogen films. Physical Review B, 2022, 105, .	1.1	4
54	Optical and Electron Spin Resonance Studies of Destruction of Porous Structures Formed by Nitrogen- 4 He Rare Gas Nanoclusters in Bulk Superfluid Helium. Journal of Low Temperature Physics, 2017, 187, 124-139.	0.6	3

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55	Electrons Trapped in Solid Neonâ€“Hydrogen Mixtures Below 1 K . Journal of Low Temperature Physics, 2019, 195, 365-377.	0.6	3
56	Paramagnetic Attraction of Impurity-Helium Solids. Journal of Low Temperature Physics, 2004, 134, 175-180.	0.6	2
57	Pulse and Continuous Wave Electron Spin Resonance Investigations of H and D Atoms in Impurity-Helium Solids. AIP Conference Proceedings, 2006, , .	0.3	2
58	SQUID Measurements of the Susceptibilities of Impurity-Helium Condensates. Journal of Low Temperature Physics, 2008, 152, 6-20.	0.6	2
59	Dynamic Nuclear Polarization and Relaxation of H and D Atoms in Solid Mixtures of Hydrogen Isotopes. Journal of Low Temperature Physics, 2017, 187, 43-53.	0.6	2
60	Rotationally induced luminescence of nanoclusters immersed in superfluid helium. Low Temperature Physics, 2019, 45, 310-316.	0.2	2
61	Nuclear-Polarized Phases of H Atoms Embedded in Solid Molecular Hydrogen Films. Journal of Low Temperature Physics, 2022, 208, 67-86.	0.6	2
62	Hyperfine Resonance of Deuterium Atoms Stabilized in Impurity-Helium Solids. Journal of Low Temperature Physics, 2000, 121, 677-682.	0.6	1
63	Application of cold beam of atoms and molecules for studying luminescence of oxygen atoms stimulated by metastable helium. Journal of Physics: Conference Series, 2014, 568, 032010.	0.3	1
64	Argon Nanoclusters with Fivefold Symmetry in Supersonic Gas Jets and Superfluid Helium. Journal of Low Temperature Physics, 2017, 187, 156-165.	0.6	1
65	Luminescence of molecular nitrogen nanoclusters containing stabilized nitrogen, oxygen, hydrogen, and deuterium atoms. Journal of Physics: Conference Series, 2018, 969, 012007.	0.3	1
66	Luminescence of molecular nitrogen in cryogenic plasmas. Low Temperature Physics, 2019, 45, 732-736.	0.2	1
67	Evidence for melting of HD and D_2 clusters in solid neon below 1 K . Physical Review B, 2019, 99, .	1.1	1
68	Thermoluminescence of nitrogenâ€“neon and nitrogenâ€“argon nanoclusters immersed in superfluid helium. Low Temperature Physics, 2019, 45, 737-747.	0.2	1
69	Studies of nuclear polarization of hydrogen atoms embedded in solid molecular hydrogen and hydrogen deuteride films. Low Temperature Physics, 2020, 46, 139-144.	0.2	1
70	Natural and magnetically induced entanglement of hyperfine-structure states in atomic hydrogen. Physical Review A, 2021, 103, .	1.0	1
71	Oxygen atoms and nitrogen molecules as spectroscopic probes for the temperature determination in non-equilibrium cryogenic helium plasma jets. Plasma Sources Science and Technology, 2021, 30, 075032.	1.3	1
72	Luminescence of ND radicals during the destruction of molecular nitrogen nanoclusters. Chemical Physics, 2019, 516, 33-37.	0.9	0

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73	Publisher's Note: Quantum vortices and thermally induced luminescence of nitrogen nanoclusters immersed in liquid helium [Phys. Rev. B 95 , 104502 (2017)]. Physical Review B, 2017, 102, .	1.1	0
74	Impurity-Helium Solids – Quantum Gels?, 2003, .		0