

Vladimir Khmelenko

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

69

papers

804

citations

16

h-index

24

g-index

76

ext. papers

846

ext. citations

2.5

avg, IF

3.49

L-index

#	Paper	IF	Citations
69	Purely Spatial Quantum Diffusion of H Atoms in Solid H ₂ at Temperatures below 1 K. <i>Physical Review Letters</i> , 2021 , 126, 195301	7.4	1
68	Oxygen atoms and nitrogen molecules as spectroscopic probes for the temperature determination in non-equilibrium cryogenic helium plasma jets. <i>Plasma Sources Science and Technology</i> , 2021 , 30, 075032	3.5	1
67	Studies of nuclear polarization of hydrogen atoms embedded in solid molecular hydrogen and hydrogen deuteride films. <i>Low Temperature Physics</i> , 2020 , 46, 139-144	0.7	1
66	Experimental cell with a Fabry-Pérot resonator tuned in situ for magnetic resonance studies of matrix-isolated radicals at temperatures below 1 K. <i>Review of Scientific Instruments</i> , 2020 , 91, 063901	1.7	1
65	Thermoluminescence of nitrogen neon and nitrogen argon nanoclusters immersed in superfluid helium. <i>Low Temperature Physics</i> , 2019 , 45, 737-747	0.7	1
64	Electrons Trapped in Solid Neon-Hydrogen Mixtures Below (1, hbox {K}). <i>Journal of Low Temperature Physics</i> , 2019 , 195, 365-377	1.3	1
63	Rotationally induced luminescence of nanoclusters immersed in superfluid helium. <i>Low Temperature Physics</i> , 2019 , 45, 310-316	0.7	2
62	Luminescence of ND radicals during the destruction of molecular nitrogen nanoclusters. <i>Chemical Physics</i> , 2019 , 516, 33-37	2.3	
61	Luminescence of molecular nitrogen in cryogenic plasmas. <i>Low Temperature Physics</i> , 2019 , 45, 732-736	0.7	1
60	Formation of Nuclear-Polarized Phases of H Atoms Embedded in Solid H ₂ Films. <i>Physical Review Letters</i> , 2019 , 122, 225301	7.4	4
59	Electron spin resonance study of atomic hydrogen stabilized in solid neon below 1 K. <i>Physical Review B</i> , 2018 , 97,	3.3	5
58	Luminescence of molecular nitrogen nanoclusters containing stabilized nitrogen, oxygen, hydrogen, and deuterium atoms. <i>Journal of Physics: Conference Series</i> , 2018 , 969, 012007	0.3	1
57	Electron Spin Resonance Studies of Nitrogen Atoms Stabilized in Impurity-Helium Condensates. <i>Journal of Low Temperature Physics</i> , 2018 , 192, 224-240	1.3	7
56	ESR study of atomic hydrogen and tritium in solid T and T:H matrices below 1 K. <i>Physical Chemistry Chemical Physics</i> , 2017 , 19, 2834-2842	3.6	5
55	Quantum vortices and thermally induced luminescence of nitrogen nanoclusters immersed in liquid helium. <i>Physical Review B</i> , 2017 , 95,	3.3	5
54	Argon Nanoclusters with Fivefold Symmetry in Supersonic Gas Jets and Superfluid Helium. <i>Journal of Low Temperature Physics</i> , 2017 , 187, 156-165	1.3	1
53	Luminescence of Molecular Nitrogen Nanoclusters Containing Stabilized Atoms. <i>Journal of Physical Chemistry A</i> , 2017 , 121, 9045-9057	2.8	6

52	Dynamic Nuclear Polarization and Relaxation of H and D Atoms in Solid Mixtures of Hydrogen Isotopes. <i>Journal of Low Temperature Physics</i> , 2017 , 187, 43-53	1.3	2
51	Optical and Electron Spin Resonance Studies of Destruction of Porous Structures Formed by Nitrogen Bare Gas Nanoclusters in Bulk Superfluid Helium. <i>Journal of Low Temperature Physics</i> , 2017 , 187, 124-139	1.3	2
50	Tunneling chemical exchange reaction $D + HD \rightarrow H + D$ in solid HD and D at temperatures below 1 K. <i>Physical Chemistry Chemical Physics</i> , 2016 , 18, 29600-29606	3.6	5
49	Spectroscopic observation of nitrogen anions $N(-)$ in solid matrices. <i>Physical Chemistry Chemical Physics</i> , 2016 , 18, 16013-20	3.6	13
48	Thermoluminescence Dynamics During Destructions of Porous Structures Formed by Nitrogen Nanoclusters in Bulk Superfluid Helium. <i>Journal of Low Temperature Physics</i> , 2016 , 185, 269-286	1.3	8
47	Bose-Einstein condensation of magnons in atomic hydrogen gas. <i>Physical Review Letters</i> , 2015 , 114, 125304	3.04	16
46	Optical spectroscopy and current detection during warm-up and destruction of impurity Helium condensates. <i>Low Temperature Physics</i> , 2015 , 41, 419-423	0.7	6
45	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, 2438-48	2.8	12
44	Percolation in aggregates of nanoclusters immersed in superfluid helium. <i>Physical Review B</i> , 2014 , 89,	3.3	6
43	Application of cold beam of atoms and molecules for studying luminescence of oxygen atoms stimulated by metastable helium. <i>Journal of Physics: Conference Series</i> , 2014 , 568, 032010	0.3	1
42	Dynamic nuclear polarization of high-density atomic hydrogen in solid mixtures of molecular hydrogen isotopes. <i>Physical Review Letters</i> , 2014 , 113, 265303	7.4	8
41	Experimental setup for investigation of nanoclusters at cryogenic temperatures by electron spin resonance and optical spectroscopies. <i>Review of Scientific Instruments</i> , 2014 , 85, 073906	1.7	6
40	Experimental cell for molecular beam deposition and magnetic resonance studies of matrix isolated radicals at temperatures below 1 K. <i>Review of Scientific Instruments</i> , 2014 , 85, 053902	1.7	17
39	Comparative study of thermo-stimulated luminescence and electron emission of nitrogen nanoclusters and films. <i>Low Temperature Physics</i> , 2013 , 39, 451-455	0.7	8
38	Energy Release Channels During Destruction of Impurity-Helium Condensates. <i>Journal of Low Temperature Physics</i> , 2013 , 171, 302-308	1.3	10
37	Luminescence of oxygen atoms stimulated by metastable helium at cryogenic temperatures. <i>Physical Review Letters</i> , 2013 , 111, 183002	7.4	9
36	Observation of the fcc-to-hcp transition in ensembles of argon nanoclusters. <i>Physical Review Letters</i> , 2012 , 109, 245505	7.4	33
35	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	0.7	13

34	Dynamics of thermoluminescence spectra of impurity-helium condensates containing stabilized nitrogen and oxygen atoms. <i>Low Temperature Physics</i> , 2012 , 38, 688-699	0.7	16
33	Matrix Isolation of H Atoms at Low Temperatures. <i>Journal of Low Temperature Physics</i> , 2011 , 162, 105-120,		3
32	Atomic Hydrogen in Thick H ₂ Films at Temperatures 0.05 K. <i>Journal of Low Temperature Physics</i> , 2011 , 162, 96-104	1.3	8
31	Stabilization of H and D atoms in krypton-helium nanocondensates. <i>Low Temperature Physics</i> , 2010 , 36, 382-391	0.7	11
30	Magnetic resonance study of H atoms in thin films of H ₂ at temperatures below 1 K. <i>Physical Review B</i> , 2010 , 81,	3.3	21
29	Stabilization of H and D atoms in Aggregates of Kr Nanoclusters Immersed in Superfluid Helium. <i>Journal of Low Temperature Physics</i> , 2010 , 158, 468-477	1.3	7
28	Stabilization of hydrogen atoms in aggregates of krypton nanoclusters immersed in superfluid helium. <i>Physical Review B</i> , 2009 , 79,	3.3	15
27	Stabilization of high-density atomic hydrogen in H ₂ films at T. <i>Physical Review B</i> , 2009 , 79,	3.3	14
26	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	1.3	14
25	SQUID Measurements of the Susceptibilities of Impurity-Helium Condensates. <i>Journal of Low Temperature Physics</i> , 2008 , 152, 6-20	1.3	2
24	Tunnelling chemical reactions of hydrogen isotopes in quantum solids. <i>Russian Chemical Reviews</i> , 2007 , 76, 1107-1121	6.8	12
23	Recent Progress in Studies of Nanostructured Impurity-Helium Solids. <i>Journal of Low Temperature Physics</i> , 2007 , 148, 1-31	1.3	28
22	Noble-gas nanoclusters with fivefold symmetry stabilized in superfluid helium. <i>Physical Review Letters</i> , 2007 , 98, 195506	7.4	45
21	Exotic behavior of hydrogen atoms in solid H ₂ at temperatures below 1 K. <i>Physical Review Letters</i> , 2006 , 97, 095301	7.4	22
20	Pulse and Continuous Wave Electron Spin Resonance Investigations of H and D Atoms in Impurity-Helium Solids. <i>AIP Conference Proceedings</i> , 2006 ,	0	2
19	Study of the stabilization and recombination of nitrogen atoms in impurity-helium condensates. <i>Low Temperature Physics</i> , 2005 , 31, 547-555	0.7	23
18	Deuterium atoms and molecules in nanoclusters of molecular deuterium. <i>Physical Review B</i> , 2004 , 69,	3.3	35
17	Impurity-Helium Solids: Chemistry and Physics at 1.5 K. <i>Journal of Low Temperature Physics</i> , 2004 , 134, 133-143	1.3	6

16	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	1.3	11
15	Paramagnetic Attraction of Impurity-Helium Solids. <i>Journal of Low Temperature Physics</i> , 2004 , 134, 175-180		2
14	Stabilization of High Concentrations of Nitrogen Atoms in Impurity-Helium Solids. <i>Journal of Low Temperature Physics</i> , 2004 , 134, 199-204	1.3	21
13	ESR investigation of hydrogen and deuterium atoms in impurity-helium solids. <i>Low Temperature Physics</i> , 2003 , 29, 505-509	0.7	15
12	X-Ray Studies of Structural Changes of Impurity-Helium Solids. <i>Journal of Low Temperature Physics</i> , 2002 , 126, 235-240	1.3	10
11	Magnetic Resonance Studies of Impurity-Helium Solids Containing Hydrogen and Deuterium Impurities. <i>Journal of Low Temperature Physics</i> , 2002 , 128, 37-52	1.3	13
10	Hydrogen atoms in impurity-helium solids. <i>Physical Review Letters</i> , 2002 , 89, 175301	7.4	27
9	Structural studies of impurity-helium solids. <i>Physical Review B</i> , 2001 , 65,	3.3	60
8	Sound propagation in liquid He in impurity-helium solids. <i>Low Temperature Physics</i> , 2000 , 26, 641-648	0.7	19
7	Hyperfine Resonance of Deuterium Atoms Stabilized in Impurity-Helium Solids. <i>Journal of Low Temperature Physics</i> , 2000 , 121, 677-682	1.3	1
6	Investigations of Ultrasound Propagation in Porous Impurity-Helium Solids. <i>Journal of Low Temperature Physics</i> , 2000 , 119, 357-366	1.3	13
5	Investigation of Ultrasound Attenuation in Impurity-Helium Solids Containing Liquid Helium. <i>Journal of Low Temperature Physics</i> , 2000 , 121, 671-676	1.3	13
4	Inert-Gas Solids with Nanoscale Porosity. <i>Physical Review Letters</i> , 1997 , 79, 1774-1777	7.4	72
3	Analysis of decomposition of impurity-helium solid phase. <i>Low Temperature Physics</i> , 1997 , 23, 567-577	0.7	16
2	Feasibility of the construction of an electric-discharge excimer laser with a condensed rare gas as the active medium. <i>Quantum Electronics</i> , 1994 , 24, 209-215	1.8	6
1	Nuclear-Polarized Phases of H Atoms Embedded in Solid Molecular Hydrogen Films. <i>Journal of Low Temperature Physics</i> , 1	1.3	0