Alexey G Khrapak

List of Publications by Year
in descending order

71	1,757	279487 23	315357 38
papers	citations	h-index	g-index

73	73	73	643
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Mechanism of dust-acoustic instability in a direct current glow discharge plasma. Physics of Plasmas, 2000, 7, 1374-1380.	0.7	138
2	Self-trapped states of positrons and positronium in dense gases in liquids. Reports on Progress in Physics, 1982, 45, 697-751.	8.1	122
3	Crystallization of a dusty plasma in the positive column of a glow discharge. JETP Letters, 1996, 64, 92-98.	0.4	75
4	Charging properties of a dust grain in collisional plasmas. Physics of Plasmas, 2006, 13, 052114.	0.7	75
5	Void Closure in Complex Plasmas under Microgravity Conditions. Physical Review Letters, 2007, 98, 265006.	2.9	69
6	Anomalous heating of a system of dust particles in a gas-discharge plasma. JETP Letters, 1997, 66, 419-425.	0.4	64
7	Model of grain charging in collisional plasmas accounting for collisionless layer. Physics of Plasmas, 2007, 14, 042102.	0.7	63
8	Levitation of cylindrical particles in the sheath of an rf plasma. Physical Review E, 2001, 63, 036406.	0.8	60
9	Structure ofO2â^'in dense helium gas. Physical Review E, 1995, 51, 4804-4806.	0.8	53
10	Large-amplitude dust waves excited by the gas-dynamic impact in a dc glow discharge plasma. Physical Review E, 2004, 69, 016402.	0.8	46
11	Attraction of Positively Charged Particles in Highly Collisional Plasmas. Physical Review Letters, 2007, 99, 055003.	2.9	46
12	Simple estimation of thermodynamic properties of Yukawa systems. Physical Review E, 2014, 89, 023102.	0.8	44
13	Rodlike particles in gas discharge plasmas: Theoretical model. Physical Review E, 2003, 68, 026403.	0.8	40
14	Shock wave formation in a dc glow discharge dusty plasma. Physical Review E, 2005, 71, 036413.	0.8	39
15	On the annihilation rate of positronium in dense rare gases. Applied Physics Berlin, 1978, 16, 179-183.	1.4	38
16	Liquid plasma crystal: Coulomb crystallization of cylindrical macroscopic grains in a gas-discharge plasma. JETP Letters, 2000, 71, 102-105.	0.4	37
17	Conjecture of the lifetime of delocalized electrons in liquid helium. Journal of Chemical Physics, 2001, 115, 10048-10049.	1.2	37
18	Anomalous Mobility of Negative Charges in Liquid Hydrogen: A Model of Ionic Bubble. High Temperature, 2003, 41, 425-427.	0.1	37

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19	Ion sphere model for Yukawa systems (dusty plasmas). Physics of Plasmas, 2014, 21, .	0.7	37
20	Onset of transverse (shear) waves in strongly-coupled Yukawa fluids. Journal of Chemical Physics, 2019, 150, 104503.	1.2	34
21	Internal Energy of the Classical Twoâ€•and Threeâ€Dimensional Oneâ€Componentâ€Plasma. Contributions To Plasma Physics, 2016, 56, 270-280.	0.5	28
22	Excess entropy and Stokes-Einstein relation in simple fluids. Physical Review E, 2021, 104, 044110.	0.8	25
23	Complex Plasma Research under Microgravity Conditions: PKâ€3 Plus Laboratory on the International Space Station. Contributions To Plasma Physics, 2016, 56, 253-262.	0.5	23
24	Collective modes of two-dimensional classical Coulomb fluids. Journal of Chemical Physics, 2018, 149, 134114.	1.2	22
25	Simple thermodynamics of strongly coupled one-component-plasma in two and three dimensions. Physics of Plasmas, 2014, 21, .	0.7	21
26	Simple Dispersion Relations for Coulomb and Yukawa Fluids. IEEE Transactions on Plasma Science, 2018, 46, 737-742.	0.6	18
27	Influence of a charge-gradient force on dust acoustic waves. Physics of Plasmas, 2018, 25, .	0.7	16
28	Transport properties of Lennard-Jones fluids: Freezing density scaling along isotherms. Physical Review E, 2021, 103, 042122.	0.8	15
29	Dusty plasma of a dc glow discharge: methods of investigation and characteristic features of behavior. High Temperature, 2004, 42, 827-841.	0.1	14
30	Collective modes in two-dimensional one-component-plasma with logarithmic interaction. Physics of Plasmas, 2016, 23, .	0.7	14
31	Negative ions in non-polar liquids. International Journal of Mass Spectrometry, 2008, 277, 236-239.	0.7	13
32	Metallization of aluminum hydride<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>AlH</mml:mtext></mml:mrow><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math> at high multiple-shock pressures. Physical Review B, 2009, 79, .	1.1	13
33	Minima of shear viscosity and thermal conductivity coefficients of classical fluids. Physics of Fluids, 2022, 34, .	1.6	13
34	Correlations between the Shear Viscosity and Thermal Conductivity Coefficients of Dense Simple Liquids. JETP Letters, 2021, 114, 540-544.	0.4	11
35	Comment on â€˜â€˜Relation between the electron scattering length and the van der Waals approximation to the equation of stateâ€™â€™. Physical Review A, 1995, 51, 5043-5044.	1.0	10
36	Vapor-air discharges between electrolytic cathode and metal anode at atmospheric pressure. High Temperature, 2005, 43, 1-7.	0.1	10

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37	Peculiar Properties of Rodlike Particles Levitating in the Sheath of an RF Plasma. IEEE Transactions on Plasma Science, 2009, 37, 1110-1115.	0.6	10
38	Modified Frost formula for the mobilities of positive ions in their parent gases. AIP Advances, 2019, 9, 095008.	0.6	10
39	Complex Plasmas With Rodlike Particles. IEEE Transactions on Plasma Science, 2011, 39, 2732-2733.	0.6	9
40	Freezing Temperature and Density Scaling of Transport Coefficients. Journal of Physical Chemistry Letters, 2022, 13, 2674-2678.	2.1	9
41	Freezing density scaling of fluid transport properties: Application to liquefied noble gases. Journal of Chemical Physics, 2022, 157, .	1.2	9
42	The mobility of positive and negative ions in liquid xenon. Radiation Physics and Chemistry, 2005, 74, 152-159.	1.4	8
43	Negative ions in liquid helium. Low Temperature Physics, 2011, 37, 387-391.	0.2	8
44	Thermodynamical Characteristics of Liquid Metal Droplets. Physica Status Solidi (B): Basic Research, 1988, 145, 455-466.	0.7	7
45	Negative ions in liquid xenon. Journal of Experimental and Theoretical Physics, 1999, 88, 320-324.	0.2	7
46	Structure of negative impurity ions in liquid helium. JETP Letters, 2007, 86, 252-255.	0.4	7
47	On the determination of the particle interaction potential in a dusty plasma from a pair correlation function. JETP Letters, 2009, 90, 332-335.	0.4	6
48	On the internal energy of the classical two-dimensional one-component-plasma. AIP Advances, 2015, 5, .	0.6	5
49	On the lower bound of the internal energy of the one-component-plasma. Physics of Plasmas, 2015, 22, 044504.	0.7	5
50	Drift velocity of ions and electrons in non-polar dielectric liquids at high electric field strengths. , 2011, , .		4
51	Investigation of the kinetics of carbon nanoparticle charging in shock-heated plasma. High Temperature, 2011, 49, 349-355.	0.1	4
52	Prandtl Number in Classical Hard-Sphere and One-Component Plasma Fluids. Molecules, 2021, 26, 821.	1.7	4
53	Approximation of the Mobility of Atomic Ions of Noble Gases in Their Parent Gas. High Temperature, 2020, 58, 545-549.	0.1	4
54	Excitation of Dust-Acoustic Waves in a DC Glow-Discharge Dusty Plasma by Means of Pulsed Gasdynamic Stimulation. High Temperature, 2004, 42, 659-666.	0.1	3

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55	Energy spectrum of one-particle excitations in liquid dielectrics under high pressures and temperatures. Journal of Experimental and Theoretical Physics, 2008, 106, 910-917.	0.2	3
56	The effect of chlorine atoms on the charging kinetics of carbon nanoparticles forming in shock-heated plasma. High Temperature, 2012, 50, 687-693.	0.1	3
57	Self-trapping of electrons in vortex rings in liquid helium. JETP Letters, 2017, 105, 797-800.	0.4	3
58	Electron and ion fluxes to a dust grain in atmospheric pressure plasma. Journal of Physics A, 2006, 39, 4561-4564.	1.6	2
59	Energy of vacancy formation in the continuum matter model. Low Temperature Physics, 2013, 39, 465-467.	0.2	2
60	Electron-forbidden energy gap of hydrogen in a wide pressure interval. Journal of Experimental and Theoretical Physics, 2005, 100, 14-21.	0.2	1
61	A Model for Grain Charging in Weakly Ionized Plasmas. AIP Conference Proceedings, 2008, , .	0.3	1
62	Negative and positive ions in liquid helium. , 2011, , .		1
63	Grain Charging and Shielding in Collisional Plasmas. , 2011, , .		1
64	Dielectric catastrophe and insulator-conductor transition. Europhysics Letters, 2012, 97, 15004.	0.7	1
65	Gordon Method for the Generation of Nanowires and High-Temperature Processes in Superfluid Helium. High Temperature, 2021, 59, 143-149.	0.1	1
66	Dust Waves Excited in a DC Glow Discharge Plasma. AIP Conference Proceedings, 2005, , .	0.3	0
67	Peculiar properties of rodlike particles levitating in the sheath of an rf plasma. AIP Conference Proceedings, 2008, , .	0.3	0
68	Charge carriers and electrical conductivity in fluid molecular dielectrics under wide pressure range. , 2011, , .		0
69	Energy spectrum of vacancies and nanobubbles in condense matter: Crystal melting. , 2014, , .		0
70	Electron Self-Trapping in Vortex Rings in Superfluid Helium. , 2019, , .		0
71	10.1007/s11447-008-1014-3. , 2010, 106, 166.		0