

# Valentin A Levashov

## List of Publications by Year in descending order

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25  
papers

308  
citations

1040056

9  
h-index

888059

17  
g-index

25  
all docs

25  
docs citations

25  
times ranked

261  
citing authors

#	ARTICLE	IF	CITATIONS
1	Viscosity, Shear Waves, and Atomic-Level Stress-Stress Correlations. <i>Physical Review Letters</i> , 2011, 106, 115703.	7.8	52
2	Equipartition theorem and the dynamics of liquids. <i>Physical Review B</i> , 2008, 78, .	3.2	46
3	The origin of viscosity as seen through atomic level stress correlation function. <i>Journal of Chemical Physics</i> , 2013, 138, 044507.	3.0	36
4	Density fluctuations and the pair distribution function. <i>Physical Review B</i> , 2005, 72, .	3.2	24
5	Statistical Mechanics of Metallic Glasses and Liquids. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2010, 41, 1628-1633.	2.2	23
6	Atomic bond fluctuations and crossover to potential-energy-landscape-influenced regime in supercooled liquid. <i>Physical Review E</i> , 2008, 78, 041202.	2.1	13
7	Contribution to viscosity from the structural relaxation via the atomic scale Green-Kubo stress correlation function. <i>Journal of Chemical Physics</i> , 2017, 147, 184502.	3.0	11
8	Quantum correction to the pair distribution function. <i>Journal of Computational Chemistry</i> , 2007, 28, 1865-1882.	3.3	10
9	Dependence of the atomic level Green-Kubo stress correlation function on wavevector and frequency: Molecular dynamics results from a model liquid. <i>Journal of Chemical Physics</i> , 2014, 141, 124502.	3.0	10
10	Many-body effects in bcc metals: An embedded atom model extension of the modified Johnson pair potential for iron. <i>Physical Review B</i> , 2008, 77, .	3.2	8
11	Crystalline structures of particles interacting through the harmonic-repulsive pair potential. <i>Journal of Chemical Physics</i> , 2017, 147, 114503.	3.0	8
12	Notes on the Analysis of Data for Pair Distribution Functions. <i>Fundamental Materials Research</i> , 2002, , 105-128.	0.1	8
13	Charged lattice gas with a neutralizing background. <i>Physical Review B</i> , 2003, 67, .	3.2	7
14	Understanding the atomic-level Green-Kubo stress correlation function for a liquid through phonons in a model crystal. <i>Physical Review B</i> , 2014, 90, .	3.2	7
15	Anomalous behavior and structure of a liquid of particles interacting through the harmonic-repulsive pair potential near the crystallization transition. <i>Soft Matter</i> , 2019, 15, 8840-8854.	2.7	7
16	Analysis of structural correlations in a model binary 3D liquid through the eigenvalues and eigenvectors of the atomic stress tensors. <i>Journal of Chemical Physics</i> , 2016, 144, 094502.	3.0	5
17	Analysis of spatial correlations in a model two-dimensional liquid through eigenvalues and eigenvectors of atomic-level stress matrices. <i>Physical Review E</i> , 2016, 93, 012602.	2.1	5
18	Investigation of the degree of local structural similarity between the parent-liquid and children-crystal states for a model soft matter system. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2022, 585, 126387.	2.6	5

#	ARTICLE	IF	CITATIONS
19	Electronic structure of linear chains of fullerenes. JETP Letters, 1997, 65, 683-686.	1.4	4
20	SIMULATING THE EFFECT OF POISSON RATIO ON METALLIC GLASS PROPERTIES. International Journal of Modern Physics B, 2009, 23, 1229-1234.	2.0	4
21	A new cubic $\sqrt{3} \times \sqrt{3} \times \sqrt{3}$ crystal structure observed in a model single component system by molecular dynamics simulation. Zeitschrift Fur Kristallographie - Crystalline Materials, 2018, 233, 67-71.	0.8	4
22	Polarons in linear chains of fullerenes. JETP Letters, 1996, 64, 567-572.	1.4	3
23	Green-Kubo stress correlation function at the atomic scale and a long-range bond-orientational ordering in a model liquid. Physical Review E, 2018, 98, .	2.1	3
24	Structure of the simple harmonic-repulsive system in liquid and glassy states studied by the triple correlation function. Journal of Physics Condensed Matter, 2021, 33, 025403.	1.8	3
25	Cooperative Jahn-Teller effect and the band structures of $K_xC_{60}$ crystals. Synthetic Metals, 1997, 86, 2391-2392.	3.9	2