

Zeke Insepov

List of Publications by Year in descending order

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102
papers

2,115
citations

236925

25
h-index

243625

44
g-index

103
all docs

103
docs citations

103
times ranked

1311
citing authors

#	ARTICLE	IF	CITATIONS
1	Molecular-dynamics simulation of thin-film growth by energetic cluster impact. Physical Review B, 1995, 51, 11061-11067.	3.2	315
2	Nanopumping Using Carbon Nanotubes. Nano Letters, 2006, 6, 1893-1895.	9.1	113
3	Molecular dynamics simulation of cluster ion bombardment of solid surfaces. Nuclear Instruments & Methods in Physics Research B, 1995, 99, 248-252.	1.4	95
4	Molecular dynamics simulation of damage formation by cluster ion impact. Nuclear Instruments & Methods in Physics Research B, 1997, 121, 49-52.	1.4	81
5	Nano-processing with gas cluster ion beams. Nuclear Instruments & Methods in Physics Research B, 2000, 164-165, 944-959.	1.4	80
6	A ternary EAM interatomic potential for U-Mo alloys with xenon. Modelling and Simulation in Materials Science and Engineering, 2013, 21, 035011.	2.0	71
7	Surface processing by gas cluster ion beams at the atomic (molecular) level. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1996, 14, 781-785.	2.1	65
8	Molecular dynamics study of shock wave generation by cluster impact on solid targets. Nuclear Instruments & Methods in Physics Research B, 1996, 112, 16-22.	1.4	63
9	Non-linear processes in the gas cluster ion beam modification of solid surfaces. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1998, 253, 249-257.	5.6	62
10	STM observation of HOPG surfaces irradiated with Ar cluster ions. Nuclear Instruments & Methods in Physics Research B, 1997, 121, 498-502.	1.4	61
11	Proposal for a hardness measurement technique without indenter by gas-cluster-beam bombardment. Physical Review B, 2000, 61, 8744-8752.	3.2	53
12	Radiation-induced damage and evolution of defects in Mo. Physical Review B, 2011, 84, .	3.2	53
13	Craters on silicon surfaces created by gas cluster ion impacts. Journal of Applied Physics, 2002, 92, 3671-3678.	2.5	52
14	Surface modifications by gas cluster ion beams. Nuclear Instruments & Methods in Physics Research B, 1995, 106, 165-169.	1.4	51
15	Secondary Electron Yield of Emissive Materials for Large-Area Micro-Channel Plate Detectors: Surface Composition and Film Thickness Dependencies. Physics Procedia, 2012, 37, 740-747.	1.2	49
16	Surface acoustic wave amplification by direct current-voltage supplied to graphene film. Applied Physics Letters, 2015, 106, .	3.3	44
17	Thin films from energetic cluster impact; experiment and molecular dynamics simulations. Nuclear Instruments & Methods in Physics Research B, 1993, 80-81, 1320-1323.	1.4	43
18	Computer simulation of crystal surface modification by accelerated cluster ion impacts. Nuclear Instruments & Methods in Physics Research B, 1997, 121, 44-48.	1.4	42

#	ARTICLE	IF	CITATIONS
19	Thin film growth by energetic cluster impact (ECI): comparison between experiment and molecular dynamics simulations. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 1993, 19, 31-36.	3.5	39
20	Sputtering and smoothing of metal surface with energetic gas cluster beams. <i>Materials Chemistry and Physics</i> , 1998, 54, 234-237.	4.0	37
21	Cluster size dependence of the impact process on a carbon substrate. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1999, 153, 264-269.	1.4	35
22	Surface processing with ionized cluster beams: computer simulation. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1999, 153, 199-208.	1.4	33
23	Can surface cracks and unipolar arcs explain breakdown and gradient limits?. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2013, 31, .	2.1	28
24	Triggers for RF breakdown. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2005, 537, 510-520.	1.6	27
25	Effects of surface damage on rf cavity operation. <i>Physical Review Special Topics: Accelerators and Beams</i> , 2006, 9, .	1.8	26
26	Surface acoustic wave propagation in graphene film. <i>Journal of Applied Physics</i> , 2015, 118, .	2.5	26
27	Molecular dynamics simulation of a carbon cluster ion impacting on a carbon surface. <i>Materials Chemistry and Physics</i> , 1998, 54, 139-142.	4.0	23
28	Surface smoothing with energetic cluster beams. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1997, 15, 981-984.	2.1	22
29	MOLECULAR-DYNAMICS SIMULATION OF SURFACE SPUTTERING BY ENERGETIC RARE-GAS CLUSTER IMPACT. <i>Surface Review and Letters</i> , 1996, 03, 1023-1027.	1.1	21
30	Comparison of candidate secondary electron emission materials. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2010, 268, 3315-3320.	1.4	21
31	New mechanism of cluster-field evaporation in rf breakdown. <i>Physical Review Special Topics: Accelerators and Beams</i> , 2004, 7, .	1.8	18
32	Simulation of cluster impacts on silicon surface. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1997, 127-128, 269-272.	1.4	16
33	Atomistic self-sputtering mechanisms of rf breakdown in high-gradient linacs. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2010, 268, 642-650.	1.4	16
34	Computer simulation of crystal surface smoothing by accelerated cluster ion impacts. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1996, 217-218, 89-93.	5.6	15
35	Computer modeling and electron microscopy of silicon surfaces irradiated by cluster ion impacts. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2003, 202, 261-268.	1.4	15
36	In situ TEM investigation of Xe ion irradiation induced defects and bubbles in pure molybdenum single crystal. <i>Journal of Nuclear Materials</i> , 2013, 437, 240-249.	2.7	15

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37	Surface modification with ionised cluster beams: Modelling. Nuclear Instruments & Methods in Physics Research B, 1999, 148, 121-125.	1.4	13
38	Derivation of kinetic coefficients by atomistic methods for studying defect behavior in Mo. Journal of Nuclear Materials, 2012, 425, 41-47.	2.7	13
39	Sputtering due to Coulomb explosion in highly charged ion bombardment. Nuclear Instruments & Methods in Physics Research B, 2003, 212, 436-441.	1.4	12
40	Comparison of secondary electron emission simulation to experiment. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 639, 155-157.	1.6	12
41	Crater formation and sputtering by cluster impacts. Nuclear Instruments & Methods in Physics Research B, 2003, 206, 846-850.	1.4	11
42	Plasma/Liquid-Metal Interactions During Tokamak Operation. Fusion Science and Technology, 2005, 47, 686-697.	1.1	11
43	Surface erosion by highly-charged ions. Nuclear Instruments & Methods in Physics Research B, 2006, 242, 498-502.	1.4	11
44	Molecular dynamics simulation of Li surface erosion and bubble formation. Journal of Nuclear Materials, 2005, 337-339, 912-916.	2.7	10
45	Surface erosion and modification by highly charged ions. Physical Review A, 2008, 77, .	2.5	10
46	Molecular - dynamics simulation of metal surface sputtering by energetic rare-gas cluster impact. , 1994, , 111-118.		10
47	Advanced surface polishing using gas cluster ion beams. Nuclear Instruments & Methods in Physics Research B, 2007, 261, 664-668.	1.4	9
48	Sheath parameters for non-Debye plasmas: Simulations and arc damage. Physical Review Special Topics: Accelerators and Beams, 2012, 15, .	1.8	9
49	Molecular Dynamics Simulations of Bubble Formation and Cavitation in Liquid Metals. Fusion Science and Technology, 2007, 52, 885-889.	1.1	8
50	Computer simulation and visualization of supersonic jet for gas cluster equipment. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2015, 795, 395-398.	1.6	8
51	Highly effective anti-corona coatings on aluminium wires by surface modification. Journal Physics D: Applied Physics, 2020, 53, 015503.	2.8	8
52	Study of gas cluster ion beam surface treatments for mitigating RF breakdown. Physica C: Superconductivity and Its Applications, 2006, 441, 75-78.	1.2	7
53	Gas cluster ion beam surface treatments for reducing field emission and breakdown of electrodes and SRF cavities. Nuclear Instruments & Methods in Physics Research B, 2007, 261, 630-633.	1.4	7
54	A multiscale method for the analysis of defect behavior in Mo during electron irradiation. Computational Materials Science, 2014, 93, 169-177.	3.0	7

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55	Ionised cluster beams as a hardness measurement tool. Nuclear Instruments & Methods in Physics Research B, 1999, 148, 47-52.	1.4	6
56	Atomistic Simulation of Clustering and Annihilation of Point Defects in Molybdenum. Defect and Diffusion Forum, 0, 323-325, 95-100.	0.4	6
57	Surface erosion and modification by ions studied by computer simulation. Nuclear Instruments & Methods in Physics Research B, 2007, 258, 172-177.	1.4	5
58	Surface erosion and modification by energetic ions. Vacuum, 2008, 82, 872-879.	3.5	5
59	Simulation of gain and timing resolution in saturated pores. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 639, 158-161.	1.6	5
60	Systems-Level Characterization of Microchannel Plate Detector Assemblies, using a Pulsed sub-Picosecond Laser. Physics Procedia, 2012, 37, 748-756.	1.2	5
61	Low temperature synthesis of graphene nanocomposites using surface passivation of porous silicon nanocrystallites with carbon atoms. Diamond and Related Materials, 2019, 92, 53-60.	3.9	5
62	Molecular Dynamics Simulation of the Effects of Energetic Cluster Ion Impact on Solid Surface. Materials Research Society Symposia Proceedings, 1993, 316, 999.	0.1	4
63	Computer simulation of surface modification with ion beams. Nuclear Instruments & Methods in Physics Research B, 2005, 241, 496-500.	1.4	4
64	Smoothing RF cavities with gas cluster ions to mitigate high voltage breakdown. Nuclear Instruments & Methods in Physics Research B, 2005, 241, 641-644.	1.4	4
65	Modeling Arcs. , 2011, , .		4
66	Atomic layer deposition for TiO ₂ and TiN nanometer films. Materials Today: Proceedings, 2017, 4, 11630-11639.	1.8	4
67	Investigation of Nanohydrophobic Sand as an Insulating Layer for Cultivation of Plants in Soils Contaminated with Heavy Metals. Eurasian Chemico-Technological Journal, 2017, 19, 91.	0.6	4
68	Modification on surface oxide layer structure and surface morphology of niobium by gas cluster ion beam treatments. Physical Review Special Topics: Accelerators and Beams, 2010, 13, .	1.8	3
69	Multiscale simulation of ion beam impacts on a graphene surface. Journal of Physics: Conference Series, 2016, 751, 012029.	0.4	3
70	Nanometer size hole fabrication in 2d ultrathin films with cluster ion beams. AIP Advances, 2017, 7, 075014.	1.3	3
71	SEM imaging of acoustically stimulated charge transport in solids. Applied Physics Letters, 2017, 110, 264103.	3.3	3
72	An integrated approach to understanding RF vacuum arcs. Scientific Reports, 2021, 11, 2361.	3.3	3

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73	Water droplet motion under the influence of Surface Acoustic Waves (SAW). Journal of Physics Communications, 2021, 5, 035009.	1.2	3
74	Gas cluster ion beam processing. , 1997, , .		2
75	Direct simulation Monte Carlo method for gas cluster ion beam technology. Nuclear Instruments & Methods in Physics Research B, 2003, 202, 283-288.	1.4	2
76	Computer simulation of surface modification with ion beams. Physica C: Superconductivity and Its Applications, 2006, 441, 114-117.	1.2	2
77	Development of Gas Cluster Ion Beam Surface Treatments for Reducing Field Emission and Breakdown in RF cavities. AIP Conference Proceedings, 2006, , .	0.4	2
78	Advanced Surface Polishing For Accelerator Technology Using Ion Beams. , 2009, , .		2
79	Charge relaxation and gain depletion for candidate secondary electron emission materials. , 2010, , .		2
80	The Problem of RF Gradient Limits. , 2010, , .		2
81	Activation of Nanoflows for Fuel Cells. Journal of Nanotechnology in Engineering and Medicine, 2012, 3, .	0.8	2
82	Modeling and Comparison with Experiment of SAW Induced Water Droplet Motion. Journal of Physics: Conference Series, 2020, 1696, 012036.	0.4	2
83	The photoacoustoelectric effect of the SAW amplification in the structure of Graphene-Piezocrystal LiNbO3. Nano Express, 0, , .	2.4	2
84	Molecular dynamics study of implant and damage formation in low-energy boron cluster ion implantation. , 0, , .		1
85	CLUSTER ION BOMBARDMENT-INDUCED SURFACE DAMAGE OF Si. Surface Review and Letters, 1996, 03, 1045-1049.	1.1	1
86	New mechanism of cluster field evaporation in rf breakdown. , 0, , .		1
87	A design for large-area fast photo-detectors with transmission-line readout and waveform sampling. , 2009, , .		1
88	Ion Solid Interaction And Surface Modification At RF Breakdown In High-Gradient Linacs. , 2011, , .		1
89	Simulation Of Ion Implantation Into Nuclear Materials And Comparison With Experiment. , 2011, , .		1
90	Multi-Scale Modeling of Interstitial Dislocation Loop Growth in Irradiated Materials. Materials Research Society Symposia Proceedings, 2012, 1444, 37.	0.1	1

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91	Atomistic and Kinetic Simulations of Radiation Damage in Molybdenum. Materials Research Society Symposia Proceedings, 2012, 1444, 15.	0.1	1
92	Acoustic-Electric Properties of Graphene under the Influence of a Surface Acoustic Waves and an External DC Field. MRS Advances, 2016, 1, 1495-1500.	0.9	1
93	Graphene, Graphene Oxide and Silicon Irradiation by Cluster Ions of Argon and Highly Charged Ions. MRS Advances, 2016, 1, 1417-1422.	0.9	1
94	Porous Silicon Skeleton as Catalysts for Hydrocarbon Decomposition at Low Temperature Synthesis of Graphene Nanocomposites. ECS Journal of Solid State Science and Technology, 2021, 10, 013009.	1.8	1
95	Computer Simulation of Cluster Ion Impacts on a Solid Surface. Materials Research Society Symposia Proceedings, 1995, 408, 591.	0.1	0
96	Computer simulation of decaborane implantation and rapid thermal annealing. , 0, , .		0
97	Computer Simulation of Annealing after Cluster Ion Implantation. Materials Research Society Symposia Proceedings, 1998, 532, 147.	0.1	0
98	Breakdown in RF Cavities. , 0, , .		0
99	Computational problems in modeling arcs. AIP Conference Proceedings, 2016, , .	0.4	0
100	Features of pulsed photon annealing of graphene oxide membranes for water desalination. Materials Research Express, 2019, 6, 125633.	1.6	0
101	Energy of low-temperature synthesis of graphen-like carbon nanocomposites on porous silicon (Review). Journal of Physics: Conference Series, 2020, 1696, 012025.	0.4	0
102	Crosslinking Multilayer Graphene by Gas Cluster Ion Bombardment. Membranes, 2022, 12, 27.	3.0	0