

# 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	Crosslinking Multilayer Graphene by Gas Cluster Ion Bombardment. <i>Membranes</i> , 2022, 12, 27.	3.0	0
2	An integrated approach to understanding RF vacuum arcs. <i>Scientific Reports</i> , 2021, 11, 2361.	3.3	3
3	Water droplet motion under the influence of Surface Acoustic Waves (SAW). <i>Journal of Physics Communications</i> , 2021, 5, 035009.	1.2	3
4	Porous Silicon Skeleton as Catalysts for Hydrocarbon Decomposition at Low Temperature Synthesis of Graphene Nanocomposites. <i>ECS Journal of Solid State Science and Technology</i> , 2021, 10, 013009.	1.8	1
5	Highly effective anti-corona coatings on aluminium wires by surface modification. <i>Journal Physics D: Applied Physics</i> , 2020, 53, 015503.	2.8	8
6	Modeling and Comparison with Experiment of SAW Induced Water Droplet Motion. <i>Journal of Physics: Conference Series</i> , 2020, 1696, 012036.	0.4	2
7	Energy of low-temperature synthesis of graphen-like carbon nanocomposites on porous silicon (Review). <i>Journal of Physics: Conference Series</i> , 2020, 1696, 012025.	0.4	0
8	Features of pulsed photon annealing of graphene oxide membranes for water desalination. <i>Materials Research Express</i> , 2019, 6, 125633.	1.6	0
9	Low temperature synthesis of graphene nanocomposites using surface passivation of porous silicon nanocrystallites with carbon atoms. <i>Diamond and Related Materials</i> , 2019, 92, 53-60.	3.9	5
10	Nanometer size hole fabrication in 2d ultrathin films with cluster ion beams. <i>AIP Advances</i> , 2017, 7, 075014.	1.3	3
11	Atomic layer deposition for TiO <sub>2</sub> and TiN nanometer films. <i>Materials Today: Proceedings</i> , 2017, 4, 11630-11639.	1.8	4
12	SEM imaging of acoustically stimulated charge transport in solids. <i>Applied Physics Letters</i> , 2017, 110, 264103.	3.3	3
13	Investigation of Nanohydrophobic Sand as an Insulating Layer for Cultivation of Plants in Soils Contaminated with Heavy Metals. <i>Eurasian Chemico-Technological Journal</i> , 2017, 19, 91.	0.6	4
14	Computational problems in modeling arcs. <i>AIP Conference Proceedings</i> , 2016, , .	0.4	0
15	Acoustic-Electric Properties of Graphene under the Influence of a Surface Acoustic Waves and an External DC Field. <i>MRS Advances</i> , 2016, 1, 1495-1500.	0.9	1
16	Graphene, Graphene Oxide and Silicon Irradiation by Cluster Ions of Argon and Highly Charged Ions. <i>MRS Advances</i> , 2016, 1, 1417-1422.	0.9	1
17	Multiscale simulation of ion beam impacts on a graphene surface. <i>Journal of Physics: Conference Series</i> , 2016, 751, 012029.	0.4	3
18	Surface acoustic wave amplification by direct current-voltage supplied to graphene film. <i>Applied Physics Letters</i> , 2015, 106, .	3.3	44

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19	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
20	Surface acoustic wave propagation in graphene film. Journal of Applied Physics, 2015, 118, .	2.5	26
21	A multiscale method for the analysis of defect behavior in Mo during electron irradiation. Computational Materials Science, 2014, 93, 169-177.	3.0	7
22	In situ TEM investigation of Xe ion irradiation induced defects and bubbles in pure molybdenum single crystal. Journal of Nuclear Materials, 2013, 437, 240-249.	2.7	15
23	A ternary EAM interatomic potential for Uâ€“Mo alloys with xenon. Modelling and Simulation in Materials Science and Engineering, 2013, 21, 035011.	2.0	71
24	Can surface cracks and unipolar arcs explain breakdown and gradient limits?. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2013, 31, .	2.1	28
25	Multi-Scale Modeling of Interstitial Dislocation Loop Growth in Irradiated Materials. Materials Research Society Symposia Proceedings, 2012, 1444, 37.	0.1	1
26	Sheath parameters for non-Debye plasmas: Simulations and arc damage. Physical Review Special Topics: Accelerators and Beams, 2012, 15, .	1.8	9
27	Atomistic and Kinetic Simulations of Radiation Damage in Molybdenum. Materials Research Society Symposia Proceedings, 2012, 1444, 15.	0.1	1
28	Activation of Nanoflows for Fuel Cells. Journal of Nanotechnology in Engineering and Medicine, 2012, 3, .	0.8	2
29	Systems-Level Characterization of Microchannel Plate Detector Assemblies, using a Pulsed sub-Picosecond Laser. Physics Procedia, 2012, 37, 748-756.	1.2	5
30	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
31	Derivation of kinetic coefficients by atomistic methods for studying defect behavior in Mo. Journal of Nuclear Materials, 2012, 425, 41-47.	2.7	13
32	Modeling Arcs. , 2011, , .		4
33	Radiation-induced damage and evolution of defects in Mo. Physical Review B, 2011, 84, .	3.2	53
34	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
35	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
36	Ion Solid Interaction And Surface Modification At RF Breakdown In High-Gradient Linacs. , 2011, , .		1

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37	Simulation Of Ion Implantation Into Nuclear Materials And Comparison With Experiment. , 2011, , .		1
38	Atomistic self-sputtering mechanisms of rf breakdown in high-gradient linacs. Nuclear Instruments & Methods in Physics Research B, 2010, 268, 642-650.	1.4	16
39	Comparison of candidate secondary electron emission materials. Nuclear Instruments & Methods in Physics Research B, 2010, 268, 3315-3320.	1.4	21
40	Charge relaxation and gain depletion for candidate secondary electron emission materials. , 2010, , .		2
41	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
42	The Problem of RF Gradient Limits. , 2010, , .		2
43	Advanced Surface Polishing For Accelerator Technology Using Ion Beams. , 2009, , .		2
44	A design for large-area fast photo-detectors with transmission-line readout and waveform sampling. , 2009, , .		1
45	Surface erosion and modification by energetic ions. Vacuum, 2008, 82, 872-879.	3.5	5
46	Surface erosion and modification by highly charged ions. Physical Review A, 2008, 77, .	2.5	10
47	Molecular Dynamics Simulations of Bubble Formation and Cavitation in Liquid Metals. Fusion Science and Technology, 2007, 52, 885-889.	1.1	8
48	Surface erosion and modification by ions studied by computer simulation. Nuclear Instruments & Methods in Physics Research B, 2007, 258, 172-177.	1.4	5
49	Advanced surface polishing using gas cluster ion beams. Nuclear Instruments & Methods in Physics Research B, 2007, 261, 664-668.	1.4	9
50	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
51	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
52	Computer simulation of surface modification with ion beams. Physica C: Superconductivity and Its Applications, 2006, 441, 114-117.	1.2	2
53	Surface erosion by highly-charged ions. Nuclear Instruments & Methods in Physics Research B, 2006, 242, 498-502.	1.4	11
54	Nanopumping Using Carbon Nanotubes. Nano Letters, 2006, 6, 1893-1895.	9.1	113

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55	Development of Gas Cluster Ion Beam Surface Treatments for Reducing Field Emission and Breakdown in RF cavities. AIP Conference Proceedings, 2006, , .	0.4	2
56	Effects of surface damage on rf cavity operation. Physical Review Special Topics: Accelerators and Beams, 2006, 9, .	1.8	26
57	Plasma/Liquid-Metal Interactions During Tokamak Operation. Fusion Science and Technology, 2005, 47, 686-697.	1.1	11
58	Molecular dynamics simulation of Li surface erosion and bubble formation. Journal of Nuclear Materials, 2005, 337-339, 912-916.	2.7	10
59	Triggers for RF breakdown. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 537, 510-520.	1.6	27
60	Computer simulation of surface modification with ion beams. Nuclear Instruments & Methods in Physics Research B, 2005, 241, 496-500.	1.4	4
61	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
62	New mechanism of cluster-field evaporation in rf breakdown. Physical Review Special Topics: Accelerators and Beams, 2004, 7, .	1.8	18
63	Computer modeling and electron microscopy of silicon surfaces irradiated by cluster ion impacts. Nuclear Instruments & Methods in Physics Research B, 2003, 202, 261-268.	1.4	15
64	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
65	Crater formation and sputtering by cluster impacts. Nuclear Instruments & Methods in Physics Research B, 2003, 206, 846-850.	1.4	11
66	Sputtering due to Coulomb explosion in highly charged ion bombardment. Nuclear Instruments & Methods in Physics Research B, 2003, 212, 436-441.	1.4	12
67	Craters on silicon surfaces created by gas cluster ion impacts. Journal of Applied Physics, 2002, 92, 3671-3678.	2.5	52
68	Nano-processing with gas cluster ion beams. Nuclear Instruments & Methods in Physics Research B, 2000, 164-165, 944-959.	1.4	80
69	Proposal for a hardness measurement technique without indenter by gas-cluster-beam bombardment. Physical Review B, 2000, 61, 8744-8752.	3.2	53
70	Ionised cluster beams as a hardness measurement tool. Nuclear Instruments & Methods in Physics Research B, 1999, 148, 47-52.	1.4	6
71	Surface modification with ionised cluster beams: Modelling. Nuclear Instruments & Methods in Physics Research B, 1999, 148, 121-125.	1.4	13
72	Surface processing with ionized cluster beams: computer simulation. Nuclear Instruments & Methods in Physics Research B, 1999, 153, 199-208.	1.4	33

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73	Cluster size dependence of the impact process on a carbon substrate. Nuclear Instruments & Methods in Physics Research B, 1999, 153, 264-269.	1.4	35
74	Sputtering and smoothing of metal surface with energetic gas cluster beams. Materials Chemistry and Physics, 1998, 54, 234-237.	4.0	37
75	Molecular dynamics simulation of a carbon cluster ion impacting on a carbon surface. Materials Chemistry and Physics, 1998, 54, 139-142.	4.0	23
76	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
77	Computer Simulation of Annealing after Cluster Ion Implantation. Materials Research Society Symposia Proceedings, 1998, 532, 147.	0.1	0
78	Surface smoothing with energetic cluster beams. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1997, 15, 981-984.	2.1	22
79	Gas cluster ion beam processing. , 1997, , .		2
80	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
81	STM observation of HOPG surfaces irradiated with Ar cluster ions. Nuclear Instruments & Methods in Physics Research B, 1997, 121, 498-502.	1.4	61
82	Molecular dynamics simulation of damage formation by cluster ion impact. Nuclear Instruments & Methods in Physics Research B, 1997, 121, 49-52.	1.4	81
83	Simulation of cluster impacts on silicon surface. Nuclear Instruments & Methods in Physics Research B, 1997, 127-128, 269-272.	1.4	16
84	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
85	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
86	Computer simulation of crystal surface smoothing by accelerated cluster ion impacts. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1996, 217-218, 89-93.	5.6	15
87	MOLECULAR-DYNAMICS SIMULATION OF SURFACE SPUTTERING BY ENERGETIC RARE-GAS CLUSTER IMPACT. Surface Review and Letters, 1996, 03, 1023-1027.	1.1	21
88	CLUSTER ION BOMBARDMENT-INDUCED SURFACE DAMAGE OF Si. Surface Review and Letters, 1996, 03, 1045-1049.	1.1	1
89	Computer Simulation of Cluster Ion Impacts on a Solid Surface. Materials Research Society Symposia Proceedings, 1995, 408, 591.	0.1	0
90	Molecular dynamics simulation of cluster ion bombardment of solid surfaces. Nuclear Instruments & Methods in Physics Research B, 1995, 99, 248-252.	1.4	95

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91	Surface modifications by gas cluster ion beams. Nuclear Instruments & Methods in Physics Research B, 1995, 106, 165-169.	1.4	51
92	Molecular-dynamics simulation of thin-film growth by energetic cluster impact. Physical Review B, 1995, 51, 11061-11067.	3.2	315
93	Molecular - dynamics simulation of metal surface sputtering by energetic rare-gas cluster impact. , 1994, , 111-118.		10
94	Thin film growth by energetic cluster impact (ECI): comparison between experiment and molecular dynamics simulations. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1993, 19, 31-36.	3.5	39
95	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
96	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
97	Molecular dynamics study of implant and damage formation in low-energy boron cluster ion implantation. , 0, , .		1
98	Computer simulation of decaborane implantation and rapid thermal annealing. , 0, , .		0
99	New mechanism of cluster field evaporation in rf breakdown. , 0, , .		1
100	Breakdown in RF Cavities. , 0, , .		0
101	Atomistic Simulation of Clustering and Annihilation of Point Defects in Molybdenum. Defect and Diffusion Forum, 0, 323-325, 95-100.	0.4	6
102	The photoacoustoelectric effect of the SAW amplification in the structure of Graphene-Piezocrystal LiNbO3. Nano Express, 0, , .	2.4	2