

Maxim V Shugaev

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.

24
papers

802
citations

14
h-index

26
g-index

26
ext. papers

947
ext. citations

5.1
avg, IF

4.49
L-index

#	Paper	IF	Citations
24	Thermoelastic modeling of laser-induced generation of strong surface acoustic waves. <i>Journal of Applied Physics</i> , 2021 , 130, 185108	2.5	1
23	Mechanisms of Acoustic Desorption of Atomic Clusters and Exfoliation of Graphene Multilayers. <i>Journal of Physical Chemistry C</i> , 2021 , 125, 23313-23326	3.8	1
22	Laser-Induced Thermal Processes: Heat Transfer, Generation of Stresses, Melting and Solidification, Vaporization, and Phase Explosion 2021 , 83-163		5
21	Atomistic simulation of the generation of vacancies in rapid crystallization of metals. <i>Acta Materialia</i> , 2021 , 203, 116465	8.4	2
20	The effect of pulse duration on nanoparticle generation in pulsed laser ablation in liquids: insights from large-scale atomistic simulations. <i>Physical Chemistry Chemical Physics</i> , 2020 , 22, 7077-7099	3.6	46
19	Effect of a liquid environment on single-pulse generation of laser induced periodic surface structures and nanoparticles. <i>Nanoscale</i> , 2020 , 12, 7674-7687	7.7	24
18	Laser-Induced Thermal Processes: Heat Transfer, Generation of Stresses, Melting and Solidification, Vaporization, and Phase Explosion 2020 , 1-81		5
17	Molecular dynamics modeling of nonlinear propagation of surface acoustic waves. <i>Journal of Applied Physics</i> , 2020 , 128, 045117	2.5	7
16	Simulation of Chemical OrderDisorder Transitions Induced Thermally at the Nanoscale for Magnetic Recording and Data Storage. <i>ACS Applied Nano Materials</i> , 2020 , 3, 7668-7677	5.6	2
15	Thermodynamic analysis and atomistic modeling of subsurface cavitation in photomechanical spallation. <i>Computational Materials Science</i> , 2019 , 166, 311-317	3.2	10
14	Computational Study of Short-Pulse Laser-Induced Generation of Crystal Defects in Ni-Based Single-Phase Binary SolidSolution Alloys. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 2202-2215	3.8	15
13	Laser-Rewriteable Ferromagnetism at Thin-Film Surfaces. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 15232-15239	9.5	22
12	Two mechanisms of nanoparticle generation in picosecond laser ablation in liquids: the origin of the bimodal size distribution. <i>Nanoscale</i> , 2018 , 10, 6900-6910	7.7	130
11	Insights into Laser-Materials Interaction Through Modeling on Atomic and Macroscopic Scales. <i>Springer Series in Materials Science</i> , 2018 , 107-148	0.9	8
10	Generation of Subsurface Voids, Incubation Effect, and Formation of Nanoparticles in Short Pulse Laser Interactions with Bulk Metal Targets in Liquid: Molecular Dynamics Study. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 16549-16567	3.8	64
9	Generation of nanocrystalline surface layer in short pulse laser processing of metal targets under conditions of spatial confinement by solid or liquid overlayer. <i>Applied Surface Science</i> , 2017 , 417, 54-63	6.7	26
8	Mechanism of single-pulse ablative generation of laser-induced periodic surface structures. <i>Physical Review B</i> , 2017 , 96,	3.3	52

7	Atomistic modeling of nanoparticle generation in short pulse laser ablation of thin metal films in water. <i>Journal of Colloid and Interface Science</i> , 2017 , 489, 3-17	9.3	96
6	Growth Twinning and Generation of High-Frequency Surface Nanostructures in Ultrafast Laser-Induced Transient Melting and Resolidification. <i>ACS Nano</i> , 2016 , 10, 6995-7007	16.7	71
5	Fundamentals of ultrafast laser-material interaction. <i>MRS Bulletin</i> , 2016 , 41, 960-968	3.2	117
4	Experimental characterization and atomistic modeling of interfacial void formation and detachment in short pulse laser processing of metal surfaces covered by solid transparent overlayers. <i>Applied Physics A: Materials Science and Processing</i> , 2016 , 122, 1	2.6	12
3	Strong enhancement of surface diffusion by nonlinear surface acoustic waves. <i>Physical Review B</i> , 2015 , 91,	3.3	14
2	Role of thermal stresses on pulsed laser irradiation of thin films under conditions of microbump formation and nonvaporization forward transfer. <i>Applied Physics A: Materials Science and Processing</i> , 2013 , 113, 521-529	2.6	29
1	Thermodynamic and stress analysis of laser-induced forward transfer of metals. <i>Applied Physics A: Materials Science and Processing</i> , 2010 , 101, 103-109	2.6	43