

Daniel Mason

List of Publications by Year in descending order

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29
papers

1,029
citations

430874

18
h-index

477307

29
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29
all docs

29
docs citations

29
times ranked

700
citing authors

#	ARTICLE	IF	CITATIONS
1	Recent advances in modeling and simulation of the exposure and response of tungsten to fusion energy conditions. <i>Nuclear Fusion</i> , 2017, 57, 092008.	3.5	113
2	Elastic trapping of dislocation loops in cascades in ion-irradiated tungsten foils. <i>Journal of Physics Condensed Matter</i> , 2014, 26, 375701.	1.8	111
3	Direct observation of size scaling and elastic interaction between nano-scale defects in collision cascades. <i>Europhysics Letters</i> , 2015, 110, 36001.	2.0	102
4	Non-Contact Measurement of Thermal Diffusivity in Ion-Implanted Nuclear Materials. <i>Scientific Reports</i> , 2015, 5, 16042.	3.3	78
5	Electron Elevator: Excitations across the Band Gap via a Dynamical Gap State. <i>Physical Review Letters</i> , 2016, 116, 043201.	7.8	68
6	A multi-scale model for stresses, strains and swelling of reactor components under irradiation. <i>Nuclear Fusion</i> , 2018, 58, 126002.	3.5	61
7	Cascade fragmentation: deviation from power law in primary radiation damage. <i>Materials Research Letters</i> , 2017, 5, 357-363.	8.7	56
8	An empirical potential for simulating vacancy clusters in tungsten. <i>Journal of Physics Condensed Matter</i> , 2017, 29, 505501.	1.8	45
9	Observation of Transient and Asymptotic Driven Structural States of Tungsten Exposed to Radiation. <i>Physical Review Letters</i> , 2020, 125, 225503.	7.8	38
10	How good is damped molecular dynamics as a method to simulate radiation damage in metals?. <i>New Journal of Physics</i> , 2009, 11, 013004.	2.9	37
11	Relaxation volumes of microscopic and mesoscopic irradiation-induced defects in tungsten. <i>Journal of Applied Physics</i> , 2019, 126, .	2.5	35
12	Modelling non-adiabatic processes using correlated electron-ion dynamics. <i>European Physical Journal B</i> , 2010, 77, 305-329.	1.5	33
13	Direct observation of the spatial distribution of primary cascade damage in tungsten. <i>Acta Materialia</i> , 2018, 144, 905-917.	7.9	33
14	Parameter-free quantitative simulation of high-dose microstructure and hydrogen retention in ion-irradiated tungsten. <i>Physical Review Materials</i> , 2021, 5, .	2.4	26
15	Atomistic modelling of diffusional phase transformations with elastic strain. <i>Journal of Physics Condensed Matter</i> , 2004, 16, S2679-S2697.	1.8	25
16	The Ehrenfest approximation for electrons coupled to a phonon system. <i>Journal of Physics Condensed Matter</i> , 2008, 20, 125212.	1.8	24
17	Nano-sized prismatic vacancy dislocation loops and vacancy clusters in tungsten. <i>Nuclear Materials and Energy</i> , 2018, 16, 60-65.	1.3	20
18	Incorporating non-adiabatic effects in embedded atom potentials for radiation damage cascade simulations. <i>Journal of Physics Condensed Matter</i> , 2015, 27, 145401.	1.8	18

#	ARTICLE	IF	CITATIONS
19	Multiscale analysis of dislocation loops and voids in tungsten. <i>Physical Review Materials</i> , 2020, 4, .	2.4	17
20	Resonant charging and stopping power of slow channelling atoms in a crystalline metal. <i>New Journal of Physics</i> , 2012, 14, 073009.	2.9	15
21	Hydrogen accumulation around dislocation loops and edge dislocations: from atomistic to mesoscopic scales in BCC tungsten. <i>Physica Scripta</i> , 2017, T170, 014073.	2.5	15
22	Atomistic-object kinetic Monte Carlo simulations of irradiation damage in tungsten. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2019, 27, 055003.	2.0	15
23	Comparative study of deuterium retention in irradiated Eurofer and Fe-Cr from a new ion implantation materials facility. <i>Nuclear Fusion</i> , 2020, 60, 016024.	3.5	11
24	Experimental observation of the number of visible defects produced in individual primary damage cascades in irradiated tungsten. <i>Europhysics Letters</i> , 2018, 122, 66001.	2.0	10
25	Helium-Ion-Implantation in Tungsten: Progress towards a Coherent Understanding of the Damage Formed and its Effects on Properties. <i>Procedia IUTAM</i> , 2017, 21, 78-85.	1.2	8
26	Estimate for thermal diffusivity in highly irradiated tungsten using molecular dynamics simulation. <i>Physical Review Materials</i> , 2021, 5, .	2.4	7
27	Morphological analysis of 3d atom probe data using Minkowski functionals. <i>Ultramicroscopy</i> , 2020, 211, 112940.	1.9	3
28	Volume of a dislocation network. <i>Physical Review Materials</i> , 2022, 6, .	2.4	3
29	Statistical mechanics of kinks on a gliding screw dislocation. <i>Physical Review Research</i> , 2020, 2, .	3.6	2