Daniel Mason

List of Publications by Year
in descending order

29 papers	1,029 citations	430874 18 h-index	477307 29 g-index
29 all docs	29 docs citations	29 times ranked	700 citing authors

#	Article	IF	Citations
1	Volume of a dislocation network. Physical Review Materials, 2022, 6, .	2.4	3
2	Parameter-free quantitative simulation of high-dose microstructure and hydrogen retention in ion-irradiated tungsten. Physical Review Materials, 2021, 5, .	2.4	26
3	Estimate for thermal diffusivity in highly irradiated tungsten using molecular dynamics simulation. Physical Review Materials, 2021, 5, .	2.4	7
4	Comparative study of deuterium retention in irradiated Eurofer and Feâ€“Cr from a new ion implantation materials facility. Nuclear Fusion, 2020, 60, 016024.	3.5	11
5	Observation of Transient and Asymptotic Driven Structural States of Tungsten Exposed to Radiation. Physical Review Letters, 2020, 125, 225503.	7.8	38
6	Morphological analysis of 3d atom probe data using Minkowski functionals. Ultramicroscopy, 2020, 211, 112940.	1.9	3
7	Multiscale analysis of dislocation loops and voids in tungsten. Physical Review Materials, 2020, 4, .	2.4	17
8	Statistical mechanics of kinks on a gliding screw dislocation. Physical Review Research, 2020, 2, .	3.6	2
9	Relaxation volumes of microscopic and mesoscopic irradiation-induced defects in tungsten. Journal of Applied Physics, 2019, 126, .	2.5	35
10	Atomistic-object kinetic Monte Carlo simulations of irradiation damage in tungsten. Modelling and Simulation in Materials Science and Engineering, 2019, 27, 055003.	2.0	15
11	Direct observation of the spatial distribution of primary cascade damage in tungsten. Acta Materialia, 2018, 144, 905-917.	7.9	33
12	Nano-sized prismatic vacancy dislocation loops and vacancy clusters in tungsten. Nuclear Materials and Energy, 2018, 16, 60-65.	1.3	20
13	Experimental observation of the number of visible defects produced in individual primary damage cascades in irradiated tungsten. Europhysics Letters, 2018, 122, 66001.	2.0	10
14	A multi-scale model for stresses, strains and swelling of reactor components under irradiation. Nuclear Fusion, 2018, 58, 126002.	3.5	61
15	Recent advances in modeling and simulation of the exposure and response of tungsten to fusion energy conditions. Nuclear Fusion, 2017, 57, 092008.	3.5	113
16	Cascade fragmentation: deviation from power law in primary radiation damage. Materials Research Letters, 2017, 5, 357-363.	8.7	56
17	Hydrogen accumulation around dislocation loops and edge dislocations: from atomistic to mesoscopic scales in BCC tungsten. Physica Scripta, 2017, T170, 014073.	2.5	15
18	An empirical potential for simulating vacancy clusters in tungsten. Journal of Physics Condensed Matter, 2017, 29, 505501.	1.8	45

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19	Helium-Ion-Implantation in Tungsten: Progress towards a Coherent Understanding of the Damage Formed and its Effects on Properties. Procedia IUTAM, 2017, 21, 78-85.	1.2	8
20	Electron Elevator: Excitations across the Band Gap via a Dynamical Gap State. Physical Review Letters, 2016, 116, 043201.	7.8	68
21	Non-Contact Measurement of Thermal Diffusivity in Ion-Implanted Nuclear Materials. Scientific Reports, 2015, 5, 16042.	3.3	78
22	Direct observation of size scaling and elastic interaction between nano-scale defects in collision cascades. Europhysics Letters, 2015, 110, 36001.	2.0	102
23	Incorporating non-adiabatic effects in embedded atom potentials for radiation damage cascade simulations. Journal of Physics Condensed Matter, 2015, 27, 145401.	1.8	18
24	Elastic trapping of dislocation loops in cascades in ion-irradiated tungsten foils. Journal of Physics Condensed Matter, 2014, 26, 375701.	1.8	111
25	Resonant charging and stopping power of slow channelling atoms in a crystalline metal. New Journal of Physics, 2012, 14, 073009.	2.9	15
26	Modelling non-adiabatic processes using correlated electron-ion dynamics. European Physical Journal B, 2010, 77, 305-329.	1.5	33
27	How good is damped molecular dynamics as a method to simulate radiation damage in metals?. New Journal of Physics, 2009, 11, 013004.	2.9	37
28	The Ehrenfest approximation for electrons coupled to a phonon system. Journal of Physics Condensed Matter, 2008, 20, 125212.	1.8	24
29	Atomistic modelling of diffusional phase transformations with elastic strain. Journal of Physics Condensed Matter, 2004, 16, S2679-S2697.	1.8	25