

Andrea E. Sand

List of Publications by Year in descending order

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39
papers

1,915
citations

304743

22
h-index

345221

36
g-index

39
all docs

39
docs citations

39
times ranked

1297
citing authors

#	ARTICLE	IF	CITATIONS
1	Comparison of SIA defect morphologies from different interatomic potentials for collision cascades in W. Modelling and Simulation in Materials Science and Engineering, 2021, 29, 065015.	2.0	3
2	Graph theory based approach to characterize self interstitial defect morphology. Computational Materials Science, 2021, 195, 110474.	3.0	7
3	Classification of clusters in collision cascades. Computational Materials Science, 2020, 172, 109364.	3.0	7
4	Effects of cascade-induced dislocation structures on the long-term microstructural evolution in tungsten. Computational Materials Science, 2020, 181, 109727.	3.0	11
5	Deuterium retention in tungsten irradiated by different ions. Nuclear Fusion, 2020, 60, 096002.	3.5	32
6	Incorporating Electronic Effects in Molecular Dynamics Simulations of Neutron and Ion-Induced Collision Cascades. , 2020, , 2413-2436.		1
7	Relaxation volumes of microscopic and mesoscopic irradiation-induced defects in tungsten. Journal of Applied Physics, 2019, 126, .	2.5	35
8	The influence of carbon impurities on the formation of loops in tungsten irradiated with self-ions. Journal of Nuclear Materials, 2019, 527, 151808.	2.7	24
9	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
10	Heavy ion ranges from first-principles electron dynamics. Npj Computational Materials, 2019, 5, .	8.7	21
11	Incorporating Electronic Effects in Molecular Dynamics Simulations of Neutron and Ion-Induced Collision Cascades. , 2019, , 1-25.		0
12	Collision cascades overlapping with self-interstitial defect clusters in Fe and W. Journal of Physics Condensed Matter, 2019, 31, 245402.	1.8	33
13	Radiation damage in tungsten from cascade overlap with voids and vacancy clusters. Journal of Physics Condensed Matter, 2019, 31, 405402.	1.8	22
14	Improving atomic displacement and replacement calculations with physically realistic damage models. Nature Communications, 2018, 9, 1084.	12.8	241
15	Directional Sensitivity in Light-Mass Dark Matter Searches with Single-Electron-Resolution Ionization Detectors. Physical Review Letters, 2018, 120, 111301.	7.8	33
16	Direct observation of the spatial distribution of primary cascade damage in tungsten. Acta Materialia, 2018, 144, 905-917.	7.9	33
17	Object kinetic Monte Carlo model for neutron and ion irradiation in tungsten: Impact of transmutation and carbon impurities. Journal of Nuclear Materials, 2018, 500, 15-25.	2.7	42
18	Incorporating Electronic Effects in Molecular Dynamics Simulations of Neutron and Ion-Induced Collision Cascades. , 2018, , 1-25.		0

#	ARTICLE	IF	CITATIONS
19	Unusual irradiation-induced disordering in Cu ₃ Au near the critical temperature: An in situ study using electron diffraction. <i>Journal of Materials Research</i> , 2018, 33, 3841-3848.	2.6	1
20	Primary radiation damage: A review of current understanding and models. <i>Journal of Nuclear Materials</i> , 2018, 512, 450-479.	2.7	358
21	Defect structures and statistics in overlapping cascade damage in fusion-relevant bcc metals. <i>Journal of Nuclear Materials</i> , 2018, 511, 64-74.	2.7	48
22	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
23	A model of defect cluster creation in fragmented cascades in metals based on morphological analysis. <i>Journal of Physics Condensed Matter</i> , 2018, 30, 405701.	1.8	10
24	A multi-scale model for stresses, strains and swelling of reactor components under irradiation. <i>Nuclear Fusion</i> , 2018, 58, 126002.	3.5	61
25	On the onset of void swelling in pure tungsten under neutron irradiation: An object kinetic Monte Carlo approach. <i>Journal of Nuclear Materials</i> , 2017, 493, 280-293.	2.7	57
26	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
27	Cascade fragmentation: deviation from power law in primary radiation damage. <i>Materials Research Letters</i> , 2017, 5, 357-363.	8.7	56
28	Cascade debris overlap mechanism of $\sim 100\text{\AA}$ dislocation loop formation in Fe and FeCr. <i>Europhysics Letters</i> , 2017, 119, 56003.	2.0	40
29	Surface effects and statistical laws of defects in primary radiation damage: Tungsten vs. iron. <i>Europhysics Letters</i> , 2016, 115, 36001.	2.0	46
30	Subcascade formation and defect cluster size scaling in high-energy collision events in metals. <i>Europhysics Letters</i> , 2016, 115, 26001.	2.0	38
31	Non-equilibrium properties of interatomic potentials in cascade simulations in tungsten. <i>Journal of Nuclear Materials</i> , 2016, 470, 119-127.	2.7	63
32	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
33	On the lower energy limit of electronic stopping in simulated collision cascades in Ni, Pd and Pt. <i>Journal of Nuclear Materials</i> , 2015, 456, 99-105.	2.7	29
34	Multiscale modelling of plasma-wall interactions in fusion reactor conditions. <i>Journal Physics D: Applied Physics</i> , 2014, 47, 224018.	2.8	55
35	Radiation damage production in massive cascades initiated by fusion neutrons in tungsten. <i>Journal of Nuclear Materials</i> , 2014, 455, 207-211.	2.7	79
36	Sputtering of Be/C/W compounds in molecular dynamics and ERO simulations. <i>Journal of Nuclear Materials</i> , 2013, 438, S589-S593.	2.7	4

#	ARTICLE	IF	CITATIONS
37	The effect of C concentration on radiation damage in Fe-Cr-C alloys. Journal of Nuclear Materials, 2013, 442, S782-S785.	2.7	4
38	High-energy collision cascades in tungsten: Dislocation loops structure and clustering scaling laws. Europhysics Letters, 2013, 103, 46003.	2.0	174
39	A solution of the uniform word problem for ortholattices. Mathematical Structures in Computer Science, 2010, 20, 625-638.	0.6	7