Fredric Granberg

List of Publications by Year in Descending Order

38 papers	1,208 citations	16 h-index	34 g-index
40 ext. papers	1,563 ext. citations	4.1 avg, IF	4.75 L-index

#	Paper	IF	Citations
38	Effect of cascade overlap and C15 clusters on the damage evolution in Fe: An OKMC study. *Materialia*, **2022**, 21, 101344	3.2	
37	Punching of arbitrary face prismatic loops from hydrogen nanobubbles in copper. *Acta Materialia*, **2022**, 225, 117554	8.4	0
36	Effect of interatomic potential on the sputtering of Pd surfaces. *Computational Materials Science*, **2021**, 188, 110134	3.2	
35	Origin of increased helium density inside bubbles in Ni(1⊠)Fe alloys. *Scripta Materialia*, **2021**, 191, 1-6	5.6	6
34	Temperature effect on irradiation damage in equiatomic multi-component alloys. *Computational Materials Science*, **2021**, 197, 110571	3.2	1
33	Parameter-free quantitative simulation of high-dose microstructure and hydrogen retention in ion-irradiated tungsten. *Physical Review Materials*, **2021**, 5,	3.2	6
32	Molecular dynamics simulations of high-dose damage production and defect evolution in tungsten. *Journal of Nuclear Materials*, **2021**, 556, 153158	3.3	1
31	Estimate for thermal diffusivity in highly irradiated tungsten using molecular dynamics simulation. *Physical Review Materials*, **2021**, 5,	3.2	1
30	Segregation of Ni at early stages of radiation damage in NiCoFeCr solid solution alloys. *Acta Materialia*, **2020**, 196, 44-51	8.4	18
29	Low energy sputtering of Mo surfaces. *Journal of Nuclear Materials*, **2020**, 539, 152274	3.3	4
28	Dynamical stability of radiation-induced C15 clusters in iron. *Journal of Nuclear Materials*, **2020**, 528, 151893	3.3	15
27	Absence of a Crystal Direction Regime in which Sputtering Corresponds to Amorphous Material. *Physical Review Letters*, **2020**, 125, 225502	7.4	3
26	Defect accumulation and evolution during prolonged irradiation of Fe and FeCr alloys. *Journal of Nuclear Materials*, **2020**, 528, 151843	3.3	13
25	Optimization of single crystal mirrors for ITER diagnostics. *Fusion Engineering and Design*, **2019**, 146, 1450-1453	1.7	5
24	Radiation stability of nanocrystalline single-phase multicomponent alloys. *Journal of Materials Research*, **2019**, 34, 854-866	2.5	5
23	Cascade overlap with vacancy-type defects in Fe. *European Physical Journal B*, **2019**, 92, 1	1.2	9
22	Collision cascades overlapping with self-interstitial defect clusters in Fe and W. *Journal of Physics Condensed Matter*, **2019**, 31, 245402	1.8	18

21	Effects of precipitates and dislocation loops on the yield stress of irradiated iron. *Scientific Reports*, **2018**, 8, 6914	4.9	30
20	GeV ion irradiation of NiFe and NiCo: Insights from MD simulations and experiments. *Acta Materialia*, **2018**, 151, 191-200	8.4	22
19	Improving atomic displacement and replacement calculations with physically realistic damage models. *Nature Communications*, **2018**, 9, 1084	17.4	146
18	Effects of the short-range repulsive potential on cascade damage in iron. *Journal of Nuclear Materials*, **2018**, 508, 530-539	3.3	33
17	Effect of random surface orientation on W sputtering yields. *Nuclear Materials and Energy*, **2018**, 17, 113-122	2.1	9
16	Primary radiation damage: A review of current understanding and models. *Journal of Nuclear Materials*, **2018**, 512, 450-479	3.3	208
15	Radiation damage buildup and dislocation evolution in Ni and equiatomic multicomponent Ni-based alloys. *Journal of Nuclear Materials*, **2017**, 490, 323-332	3.3	49
14	Radiation damage buildup by athermal defect reactions in nickel and concentrated nickel alloys. *Materials Research Letters*, **2017**, 5, 433-439	7.4	21
13	Atomic-level heterogeneity and defect dynamics in concentrated solid-solution alloys. *Current Opinion in Solid State and Materials Science*, **2017**, 21, 221-237	12	110
12	Damage buildup and edge dislocation mobility in equiatomic multicomponent alloys. *Nuclear Instruments & Methods in Physics Research B*, **2017**, 393, 114-117	1.2	17
11	Local segregation versus irradiation effects in high-entropy alloys: Steady-state conditions in a driven system. *Journal of Applied Physics*, **2017**, 122, 105106	2.5	36
10	Angular and velocity distributions of tungsten sputtered by low energy argon ions. *Journal of Nuclear Materials*, **2017**, 496, 18-23	3.3	9
9	Cascade debris overlap mechanism of <100> dislocation loop formation in Fe and FeCr. *Europhysics Letters*, **2017**, 119, 56003	1.6	33
8	Molecular dynamics simulations of thermally activated edge dislocation unpinning from voids in Fe. *Physical Review Materials*, **2017**, 1,	3.2	8
7	Multiscale modeling of dislocation-precipitate interactions in Fe: From molecular dynamics to discrete dislocations. *Physical Review E*, **2016**, 93, 013309	2.4	53
6	Mechanism of Radiation Damage Reduction in Equiatomic Multicomponent Single Phase Alloys. *Physical Review Letters*, **2016**, 116, 135504	7.4	250
5	Tensile testing of Fe and FeCr nanowires using molecular dynamics simulations. *Journal of Applied Physics*, **2015**, 117, 014313	2.5	20
4	Molecular dynamics investigation of the interaction of dislocations with carbides in BCC Fe. *Nuclear Instruments & Methods in Physics Research B*, **2015**, 352, 77-80	1.2	8

3	Interaction of dislocations with carbides in BCC Fe studied by molecular dynamics. *Journal of Nuclear Materials*, **2015**, 460, 23-29	3.3	16
2	Investigation of the thermal stability of Cu nanowires using atomistic simulations. *Journal of Applied Physics*, **2014**, 115, 213518	2.5	14
1	Interaction of Dislocations with Carbides in BCC Fe Studied by Molecular Dynamics. *Fusion Science and Technology*, **2014**, 66, 283-288	1.1	11