Jonathan A Hinks

List of Publications by Year
in descending order

67 papers	1,378 citations	430442 18 h-index	360668 35 g-index
67 all docs	67 docs citations	67 times ranked	1427 citing authors

#	Article	IF	Citations
1	In-situ TEM observation of the response of ultrafine- and nanocrystalline-grained tungsten to extreme irradiation environments. Scientific Reports, 2014, 4, 4716.	1.6	161
2	Helium bubble formation in ultrafine and nanocrystalline tungsten under different extreme conditions. Journal of Nuclear Materials, 2015, 458, 216-223.	1.3	137
3	Grain size threshold for enhanced irradiation resistance in nanocrystalline and ultrafine tungsten. Materials Research Letters, 2017, 5, 343-349.	4.1	81
4	A review of transmission electron microscopes with in situ ion irradiation. Nuclear Instruments & Methods in Physics Research B, 2009, 267, 3652-3662.	0.6	73
5	Enhanced Sputtering Yields from Single-Ion Impacts on Gold Nanorods. Physical Review Letters, 2013, 111, 065504.	2.9	71
6	Reversible Loss of Bernal Stacking during the Deformation of Few-Layer Graphene in Nanocomposites. ACS Nano, 2013, 7, 7287-7294.	7.3	68
7	In-situ observation and atomic resolution imaging of the ion irradiation induced amorphisation of graphene. Scientific Reports, 2014, 4, 6334.	1.6	62
8	MIAMI: Microscope and ion accelerator for materials investigations. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2011, 29, .	0.9	52
9	A study of the effect of helium concentration and displacement damage on the microstructure of helium ion irradiated tungsten. Journal of Nuclear Materials, 2017, 495, 492-503.	1.3	47
10	New Microscope and Ion Accelerators for Materials Investigations (MIAMI-2) system at the University of Huddersfield. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2019, 931, 37-43.	0.7	42
11	Dynamic microstructural evolution of graphite under displacing irradiation. Carbon, 2014, 68, 273-284.	5.4	33
12	Engineering self-organising helium bubble lattices in tungsten. Scientific Reports, 2017, 7, 7724.	1.6	33
13	Helium bubble formation in nuclear glass by in-situ TEM ion implantation. Journal of Nuclear Materials, 2014, 452, 565-568.	1.3	26
14	Ion implantation in nanodiamonds: size effect and energy dependence. Scientific Reports, 2018, 8, 5099.	1.6	25
15	In situ Observation of Microstructure Evolution in 4Hâ€"SiC under 3.5Â keV He+ Irradiation. Journal of Nuclear Materials, 2016, 471, 149-153.	1.3	24
16	Effect of He implantation on the microstructure of zircaloy-4 studied using in situ TEM. Journal of Nuclear Materials, 2017, 493, 230-238.	1.3	23
17	Influence of pre-implanted helium on dislocation loop type in tungsten under self-ion irradiation. Scripta Materialia, 2018, 150, 61-65.	2.6	22
18	New Insights about the Importance of the Alteration Layer/Glass Interface. Journal of Physical Chemistry C, 2020, 124, 10032-10044.	1.5	21

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19	Effect of He-appm/DPA ratio on the damage microstructure of tungsten. MRS Advances, 2016, 1, 2893-2899.	0.5	19
20	Damage microstructure evolution of helium ion irradiated SiC under fusion relevant temperatures. Journal of the European Ceramic Society, 2018, 38, 3718-3726.	2.8	19
21	Helium irradiation effects in polycrystalline Si, silica, and single crystal Si. Journal of Applied Physics, 2012, 111, .	1.1	18
22	Sputtering yields exceeding 1000 by 80keV Xe irradiation of Au nanorods. Nuclear Instruments & Methods in Physics Research B, 2014, 341, 17-21.	0.6	17
23	An in situ transmission electron microscopy study of the ion irradiation induced amorphisation of silicon by He and Xe. Scripta Materialia, 2016, 113, 190-193.	2.6	17
24	In-situ TEM study of irradiation-induced damage mechanisms in monoclinic-ZrO2. Acta Materialia, 2020, 199, 429-442.	3.8	17
25	The effect of temperature on bubble lattice formation in copper under in situ He ion irradiation. Scripta Materialia, 2017, 131, 108-111.	2.6	16
26	Transmission electron microscopy with in situ ion irradiation. Journal of Materials Research, 2015, 30, 1214-1221.	1.2	15
27	Enhanced Radiation Tolerance of Tungsten Nanoparticles to He Ion Irradiation. Nanomaterials, 2018, 8, 1052.	1.9	14
28	Helium implantation damage resistance in nanocrystalline W-Ta-V-Cr high entropy alloys. Materials Today Energy, 2021, 19, 100599.	2.5	14
29	Rapid and damage-free outgassing of implanted helium from amorphous silicon oxycarbide. Scientific Reports, 2018, 8, 5009.	1.6	13
30	Effect of decades of corrosion on the microstructure of altered glasses and their radiation stability. Npj Materials Degradation, 2020, 4, .	2.6	13
31	Ion-beam-induced bending of semiconductor nanowires. Nanotechnology, 2018, 29, 335701.	1.3	12
32	In-Situ Helium Implantation and TEM Investigation of Radiation Tolerance to Helium Bubble Damage in Equiaxed Nanocrystalline Tungsten and Ultrafine Tungsten-TiC Alloy. Materials, 2020, 13, 794.	1.3	11
33	Characterisation of helium ion irradiated bulk tungsten: A comparison with the in-situ TEM technique. Fusion Engineering and Design, 2019, 138, 210-216.	1.0	10
34	In situ transmission electron microscopy studies of radiation damage in copper indium diselenide. Nuclear Instruments & Methods in Physics Research B, 2006, 242, 686-689.	0.6	9
35	Effects of crystallographic and geometric orientation on ion beam sputtering of gold nanorods. Scientific Reports, 2018, 8, 512.	1.6	9
36	Xenon solubility and formation of supercritical xenon precipitates in glasses under non-equilibrium conditions. Scientific Reports, 2018, 8, 15320.	1.6	9

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37	In situ He+ irradiation of the double solid solution (Ti0.5,Zr0.5)2(Al0.5,Sn0.5)C MAX phase: Defect evolution in the 350â€“800 Â°C temperature range. Acta Materialia, 2021, 206, 116606.	3.8	9
38	In situ TEM investigations of the microstructural changes and radiation tolerance in SiC nanowhiskers irradiated with He ions at high temperatures. Acta Materialia, 2021, 210, 116820.	3.8	9
39	Kink Band Formation in Graphite under Ion Irradiation at 100 and 298 K. Materials Transactions, 2014, 55, 447-450.	0.4	8
40	Shape Modification of Germanium Nanowires during Ion Irradiation and Subsequent Solidâ€Phase Epitaxial Growth. Advanced Materials Interfaces, 2018, 5, 1800276.	1.9	8
41	Investigating Helium Bubble Nucleation and Growth through Simultaneous In-Situ Cryogenic, Ion Implantation, and Environmental Transmission Electron Microscopy. Materials, 2019, 12, 2618.	1.3	8
42	Modification of nanodiamonds by xenon implantation: A molecular dynamics study. Nuclear Instruments & Methods in Physics Research B, 2019, 453, 32-40.	0.6	8
43	Intermetallic Re phases formed in ion irradiated WRe alloy. Journal of Nuclear Materials, 2019, 514, 123-127.	1.3	8
44	Low-temperature investigations of ion-induced amorphisation in silicon carbide nanowhiskers under helium irradiation. Applied Surface Science, 2020, 501, 143969.	3.1	8
45	Transmission Electron Microscopy Study of Graphite under<i>in situ</i>Ion Irradiation. Journal of Physics: Conference Series, 2012, 371, 012046.	0.3	7
46	Understanding amorphization mechanisms using ion irradiation in situ a TEM and 3D damage reconstruction. Ultramicroscopy, 2019, 207, 112838.	0.8	7
47	Copper indium diselenide: crystallography and radiation-induced dislocation loops. Philosophical Magazine, 2011, 91, 517-536.	0.7	6
48	Effects of temperature on the ion-induced bending of germanium and silicon nanowires. Materials Research Express, 2017, 4, 075056.	0.8	5
49	The effect of flux on ion irradiation-enhanced precipitation in AISI-316L: An in-situ TEM study. Journal of Nuclear Materials, 2020, 541, 152414.	1.3	5
50	Transmission electron microscopy of the amorphization of copper indium diselenide by in situ ion irradiation. Journal of Applied Physics, 2012, 111, 053510.	1.1	3
51	An<i>in-situ</i>TEM investigation of He bubble evolution in SiC. Journal of Physics: Conference Series, 2012, 371, 012052.	0.3	3
52	In-situ TEM studies of ion-irradiation induced bubble development and mechanical deformation in model nuclear materials. Materials Research Society Symposia Proceedings, 2014, 1645, 1.	0.1	3
53	Effect of density and Z-contrast on the visibility of noble gas precipitates and voids with insights from Monte-Carlo simulations. Micron, 2019, 126, 102712.	1.1	3
54	Ballistic-damage-induced size changes in equilibrium and under-pressurized Xe precipitates in amorphous silica. Journal of Nuclear Materials, 2019, 519, 229-238.	1.3	3

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55	Radiation Damage Suppression in AISI-316 Steel Nanoparticles: Implications for the Design of Future Nuclear Materials. ACS Applied Nano Materials, 2020, 3, 9652-9662.	2.4	3
56	An<i>in-situ</i>TEM study of the effects of 6 keV He ion irradiation on Si and SiO₂. Journal of Physics: Conference Series, 2012, 371, 012045.	0.3	2
57	Atom-by-Atom STEM Investigation of Defect Engineering in Graphene. Microscopy and Microanalysis, 2014, 20, 1736-1737.	0.2	2
58	Ex Situ and In Situ Studies of Radiation Damage Mechanisms in Zr-Nb Alloys. , 2021, , 408-434.		2
59	In situ growth and coalescence of He-filled bi-dimensional defects in Si by H supply. Journal of Applied Physics, 2014, 115, 223515.	1.1	1
60	Hydrogen induced growth and coalescence of helium-based defects. Physica Status Solidi C: Current Topics in Solid State Physics, 2015, 12, 1156-1159.	0.8	1
61	TEM with in situ Ion Irradiation of Nuclear Materials under In-Service Conditions. Microscopy and Microanalysis, 2016, 22, 1460-1461.	0.2	1
62	Anomalous nucleation of crystals within amorphous germanium nanowires during thermal annealing. Nanotechnology, 2021, 32, 285707.	1.3	1
63	Study on the dissolution of Î²-precipitates in the Zrâ€“1Nb alloy under the influence of Ne ion irradiation. Microscopy (Oxford, England), 2021, 70, 461-468.	0.7	1
64	A New TEM / Ion Accelerator Facility at the University of Salford, UK. Microscopy and Microanalysis, 2009, 15, 1342-1343.	0.2	0
65	Effects of Displacing Radiation on Graphite Observed Using in situ Transmission Electron Microscopy. Materials Research Society Symposia Proceedings, 2012, 1383, 67.	0.1	0
66	Direct Comparison of Tungsten Nanoparticles and Foils under Helium Irradiation at High Temperatures Studied via In-Situ Transmission Electron Microscopy. Microscopy and Microanalysis, 2019, 25, 1576-1577.	0.2	0
67	Nanostructuring Germanium Nanowires by In Situ TEM Ion Irradiation. Particle and Particle Systems Characterization, 2021, 38, 2100154.	1.2	0