# Graeme Greaves

List of Publications by Year
in descending order

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| 54 | 1,216 | 430442 | 395343 |
|---|---|---|---|
| papers | citations | 18 | 33 |
| | | h-index | g-index |

| 55 | 55 | 55 | 1189 |
|---|---|---|---|
| all docs | docs citations | times ranked | 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 | Enhanced Sputtering Yields from Single-Ion Impacts on Gold Nanorods. Physical Review Letters, 2013, 111, 065504. | 2.9 | 71 |
| 5 | In-situ observation and atomic resolution imaging of the ion irradiation induced amorphisation of graphene. Scientific Reports, 2014, 4, 6334. | 1.6 | 62 |
| 6 | 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 |
| 7 | 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 |
| 8 | Thermal stability and irradiation response of nanocrystalline CoCrCuFeNi high-entropy alloy. Nanotechnology, 2019, 30, 294004. | 1.3 | 38 |
| 9 | Dynamic microstructural evolution of graphite under displacing irradiation. Carbon, 2014, 68, 273-284. | 5.4 | 33 |
| 10 | Engineering self-organising helium bubble lattices in tungsten. Scientific Reports, 2017, 7, 7724. | 1.6 | 33 |
| 11 | Energetic particle irradiation study of TiN coatings: are these films appropriate for accident tolerant fuels?. Journal of Nuclear Materials, 2018, 512, 239-245. | 1.3 | 31 |
| 12 | Helium bubble formation in nuclear glass by in-situ TEM ion implantation. Journal of Nuclear Materials, 2014, 452, 565-568. | 1.3 | 26 |
| 13 | Ion implantation in nanodiamonds: size effect and energy dependence. Scientific Reports, 2018, 8, 5099. | 1.6 | 25 |
| 14 | Chemical effects on He bubble superlattice formation in high entropy alloys. Current Opinion in Solid State and Materials Science, 2019, 23, 100762. | 5.6 | 24 |
| 15 | 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 |
| 16 | Investigating sluggish diffusion in a concentrated solid solution alloy using ion irradiation with in situ TEM. Intermetallics, 2019, 110, 106461. | 1.8 | 22 |
| 17 | A candidate fusion engineering material, WC-FeCr. Scripta Materialia, 2018, 155, 129-133. | 2.6 | 21 |
| 18 | Effect of He-appm/DPA ratio on the damage microstructure of tungsten. MRS Advances, 2016, 1, 2893-2899. | 0.5 | 19 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Helium irradiation effects in polycrystalline Si, silica, and single crystal Si. Journal of Applied Physics, 2012, 111, . | 1.1 | 18 |
| 20 | 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 |
| 21 | 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 |
| 22 | Comparative irradiation response of an austenitic stainless steel with its high-entropy alloy counterpart. Intermetallics, 2021, 132, 107130. | 1.8 | 17 |
| 23 | 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 |
| 24 | In-situ TEM investigation of nano-scale helium bubble evolution in tantalum-doped tungsten at 800Â°C. Journal of Nuclear Materials, 2021, 550, 152910. | 1.3 | 16 |
| 25 | Enhanced Radiation Tolerance of Tungsten Nanoparticles to He Ion Irradiation. Nanomaterials, 2018, 8, 1052. | 1.9 | 14 |
| 26 | Thermodynamics of an austenitic stainless steel (AISI-348) under in situ TEM heavy ion irradiation. Acta Materialia, 2019, 179, 360-371. | 3.8 | 14 |
| 27 | Helium implantation damage resistance in nanocrystalline W-Ta-V-Cr high entropy alloys. Materials Today Energy, 2021, 19, 100599. | 2.5 | 14 |
| 28 | Rapid and damage-free outgassing of implanted helium from amorphous silicon oxycarbide. Scientific Reports, 2018, 8, 5009. | 1.6 | 13 |
| 29 | Ion-beam-induced bending of semiconductor nanowires. Nanotechnology, 2018, 29, 335701. | 1.3 | 12 |
| 30 | A candidate accident tolerant fuel system based on a highly concentrated alloy thin film. Materials Today Energy, 2019, 12, 356-362. | 2.5 | 12 |
| 31 | 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 |
| 32 | Effects of crystallographic and geometric orientation on ion beam sputtering of gold nanorods. Scientific Reports, 2018, 8, 512. | 1.6 | 9 |
| 33 | 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 |
| 34 | 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 |
| 35 | Irradiation stability and induced ferromagnetism in a nanocrystalline CoCrCuFeNi highly-concentrated alloy. Nanoscale, 2021, 13, 20437-20450. | 2.8 | 9 |
| 36 | Kink Band Formation in Graphite under Ion Irradiation at 100 and 298 K. Materials Transactions, 2014, 55, 447-450. | 0.4 | 8 |

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|---|---|---|---|
| 37 | Shape Modification of Germanium Nanowires during Ion Irradiation and Subsequent Solidâ€Phase Epitaxial Growth. Advanced Materials Interfaces, 2018, 5, 1800276. | 1.9 | 8 |
| 38 | 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 |
| 39 | Intermetallic Re phases formed in ion irradiated WRe alloy. Journal of Nuclear Materials, 2019, 514, 123-127. | 1.3 | 8 |
| 40 | Low-temperature investigations of ion-induced amorphisation in silicon carbide nanowhiskers under helium irradiation. Applied Surface Science, 2020, 501, 143969. | 3.1 | 8 |
| 41 | Observations of He platelets during He ion irradiation in 3C SiC. Journal of Nuclear Materials, 2022, 559, 153426. | 1.3 | 8 |
| 42 | Understanding amorphization mechanisms using ion irradiation in situ a TEM and 3D damage reconstruction. Ultramicroscopy, 2019, 207, 112838. | 0.8 | 7 |
| 43 | Prototypic Lightweight Alloy Design for Stellarâ€Radiation Environments. Advanced Science, 2020, 7, 2002397. | 5.6 | 7 |
| 44 | Synthesis and in situ ion irradiation of A-site deficient zirconate perovskite ceramics. Journal of Materials Chemistry A, 2020, 8, 19454-19466. | 5.2 | 7 |
| 45 | Effects of temperature on the ion-induced bending of germanium and silicon nanowires. Materials Research Express, 2017, 4, 075056. | 0.8 | 5 |
| 46 | 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 |
| 47 | Dual-Beam Irradiation Stability of Amorphous Silicon Oxycarbide at 300Â°C and 500Â°C. Jom, 2020, 72, 4002-4007. | 0.9 | 4 |
| 48 | 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 |
| 49 | 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 |
| 50 | A cross-sectional transmission electron microscopy study of iron recovered from a laser-heated diamond anvil cell. Journal of Physics: Conference Series, 2008, 126, 012047. | 0.3 | 2 |
| 51 | TEM with in situ Ion Irradiation of Nuclear Materials under In-Service Conditions. Microscopy and Microanalysis, 2016, 22, 1460-1461. | 0.2 | 1 |
| 52 | Anomalous nucleation of crystals within amorphous germanium nanowires during thermal annealing. Nanotechnology, 2021, 32, 285707. | 1.3 | 1 |
| 53 | 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 |
| 54 | Nanostructuring Germanium Nanowires by In Situ TEM Ion Irradiation. Particle and Particle Systems Characterization, 2021, 38, 2100154. | 1.2 | 0 |