Stuart Maloy

List of Publications by Year
in descending order

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253 papers	7,362 citations	61984 43 h-index	85541 71 g-index
275 all docs	275 docs citations	275 times ranked	4051 citing authors

#	Article	IF	Citations
1	Insights from microstructure and mechanical property comparisons of three pilgered ferritic ODS tubes. Materials and Design, 2022, 213, 110333.	7.0	6
2	Void swelling of conventional and composition engineered HT9 alloys after high-dose self-ion irradiation. Journal of Nuclear Materials, 2022, 560, 153492.	2.7	7
3	The influence of nitrogen and nitrides on the structure and properties of proton irradiated ferritic/martensitic steel. Journal of Nuclear Materials, 2022, 561, 153528.	2.7	2
4	Projection-capacitor discharge resistance welding of 430 stainless steel and 14YWT. Journal of Manufacturing Processes, 2022, 75, 1189-1201.	5.9	5
5	Solid-State Welding of the Nanostructured Ferritic Alloy 14YWT Using a Capacitive Discharge Resistance Welding Technique. Metals, 2022, 12, 23.	2.3	1
6	High-Throughput Nanoindentation Mapping of Additively Manufactured T91 Steel. Jom, 2022, 74, 1469-1476.	1.9	6
7	A Novel Microshear Geometry for Exploring the Influence of Void Swelling on the Mechanical Properties Induced by MeV Heavy Ion Irradiation. Materials, 2022, 15, 4253.	2.9	2
8	Experimental methodology and theoretical framework in describing constrained plastic flow of FCC microscale tensile specimens. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 799, 140124.	5.6	10
9	Tensile properties and microstructure of additively manufactured Grade 91 steel for nuclear applications. Journal of Nuclear Materials, 2021, 544, 152723.	2.7	23
10	In Situ Micro-Pillar Compression to Examine Radiation-Induced Hardening Mechanisms of FeCrAl Alloys. Acta Materialia, 2021, 202, 255-265.	7.9	34
11	Microstructural and micro-mechanical analysis of 14YWT nanostructured Ferritic alloy after varying thermo-mechanical processing paths into tubing. Materials Characterization, 2021, 171, 110744.	4.4	5
12	Comparison of void swelling of ferritic-martensitic and ferritic HT9 alloys after high-dose self-ion irradiation. Materials Characterization, 2021, 173, 110908.	4.4	11
13	Helium implantation damage resistance in nanocrystalline W-Ta-V-Cr high entropy alloys. Materials Today Energy, 2021, 19, 100599.	4.7	14
14	Enhancement of Nanostructured Ferritic Alloy 14YWT Properties via Heat Treatment for Post-Consolidation Processing. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2021, 52, 2821-2829.	2.2	2
15	The effects of microstructures and radiation damage on the deformation behavior of a HT-9 alloy using microtensile testing. Materials Characterization, 2021, 174, 110972.	4.4	7
16	Joining of Nanostructured Ferritic 14YWT Alloys by Spark Plasma Technique. Journal of Materials Engineering and Performance, 2021, 30, 5736-5741.	2.5	2
17	Investigation of hardening mechanisms and size effects in proton-irradiated HT-9 steels. Journal of Nuclear Materials, 2021, 548, 152866.	2.7	3
18	Spatial and temporal variation of hardness of a printed steel part. Acta Materialia, 2021, 209, 116775.	7.9	25

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19	Ultrafine intralath precipitation of V(C,N) in 12Cr-1MoWV (wt.%) ferritic/martensitic steel. Scripta Materialia, 2021, 197, 113787.	5.2	7
20	Helium-bubble-enhanced disordering of intermetallic phase under irradiation. Materials Characterization, 2021, 176, 111094.	4.4	3
21	A NEA review on innovative structural materials solutions, including advanced manufacturing processes for nuclear applications based on technology readiness assessment. Nuclear Materials and Energy, 2021, 27, 101006.	1.3	5
22	Additive Manufacturing of structural materials for nuclear application and rapid mesoscale mechanical testing. Microscopy and Microanalysis, 2021, 27, 2154-2155.	0.4	0
23	Enhanced mechanical properties of additive manufactured Grade 91 steel. Scripta Materialia, 2021, 199, 113888.	5.2	11
24	Stable, Ductile and Strong Ultrafine HT-9 Steels via Large Strain Machining. Nanomaterials, 2021, 11, 2538.	4.1	3
25	Limitations of Thermal Stability Analysis via In-Situ TEM/Heating Experiments. Nanomaterials, 2021, 11, 2541.	4.1	0
26	Deformation twinning versus slip in Ni-based alloys, containing Pt2Mo-structured, Ni2Cr-typed precipitates. Materials and Design, 2021, 207, 109820.	7.0	11
27	Demonstration of a High-Throughput Tensile Testing Technique Using Femtosecond Laser-Fabricated Tensile Bars in AISI 316 and Additively Manufactured Grade 91 Steel. Jom, 2021, 73, 4240-4247.	1.9	2
28	Irradiation stability and induced ferromagnetism in a nanocrystalline CoCrCuFeNi highly-concentrated alloy. Nanoscale, 2021, 13, 20437-20450.	5.6	9
29	Microstructure response of ferritic/martensitic steel HT9 after neutron irradiation: Effect of temperature. Journal of Nuclear Materials, 2020, 528, 151845.	2.7	21
30	Micro- and mesoscale mechanical properties of an ultra-fine grained CrFeMnNi high entropy alloy produced by large strain machining. Scripta Materialia, 2020, 178, 508-512.	5.2	32
31	Sizing up mechanical testing: Comparison of microscale and mesoscale mechanical testing techniques on a FeCrAl welded tube. Journal of Materials Research, 2020, 35, 2817-2830.	2.6	8
32	Phase Stability of Ni/Ni3Al Multilayers Under Thermal Annealing and Irradiation. Jom, 2020, 72, 3995-4001.	1.9	4
33	In-situ observation of nano-oxide and defect evolution in 14YWT alloys. Materials Characterization, 2020, 170, 110686.	4.4	7
34	High-Efficiency Three-Dimensional Visualization of Complex Microstructures via Multidimensional STEM Acquisition and Reconstruction. Microscopy and Microanalysis, 2020, 26, 240-246.	0.4	5
35	Proton irradiation and characterization of additively manufactured 304L stainless steels. Journal of Nuclear Materials, 2020, 531, 152007.	2.7	12
36	Shear Punch Testing of Neutron-Irradiated HT-9 and 14YWT. Jom, 2020, 72, 1703-1709.	1.9	4

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37	Temperature threshold for preferential bubble formation on grain boundaries in tungsten under in-situ helium irradiation. Scripta Materialia, 2020, 180, 6-10.	5.2	29
38	Microstructure Development with Thermomechanical Processing in Alloy MA956. ISIJ International, 2020, 60, 546-555.	1.4	1
39	Revealing the synergistic effects of sequential and simultaneous dual beam irradiations in tungsten via in-situ TEM. Journal of Nuclear Materials, 2020, 538, 152150.	2.7	28
40	Damage relief of ion-irradiated Inconel alloy 718 via annealing. Nuclear Instruments & Methods in Physics Research B, 2020, 479, 157-162.	1.4	2
41	Nitrogen effects on radiation response in 12Cr ferritic/martensitic alloys. Scripta Materialia, 2020, 189, 145-150.	5.2	9
42	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.	2.9	11
43	Microstructure evolution in MA956 neutron irradiated in ATR at 328ÂÂ°C to 4.36 dpa. Journal of Nuclear Materials, 2020, 533, 152094.	2.7	4
44	Surface engineering of IN-718 by low-temperature carburisation: properties and thermal stability. Surface Engineering, 2019, 35, 281-293.	2.2	4
45	Overview of Reactor Systems and Operational Environments for Structural Materials in Gen-IV Fission Reactors. , 2019, , 23-49.		1
46	Characterization of 14YWT oxide dispersion strengthened structural materials under electrically-assisted tension. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 745, 484-494.	5.6	11
47	A novel approach for manufacturing oxide dispersion strengthened (ODS) steel cladding tubes using cold spray technology. Nuclear Engineering and Technology, 2019, 51, 1069-1074.	2.3	12
48	Correlation of in-situ transmission electron microscopy and microchemistry analysis of radiation-induced precipitation and segregation in ion irradiated advanced ferritic/martensitic steels. Scripta Materialia, 2019, 162, 460-464.	5.2	12
49	Response of 14YWT alloys under neutron irradiation: A complementary study on microstructure and mechanical properties. Acta Materialia, 2019, 167, 181-196.	7.9	33
50	Micropillar compression response of femtosecond laser-cut single crystal Cu and proton irradiated Cu. Scripta Materialia, 2019, 170, 145-149.	5.2	28
51	Î±â€² formation kinetics and radiation induced segregation in neutron irradiated 14YWT nanostructured ferritic alloys. Scientific Reports, 2019, 9, 8345.	3.3	12
52	Intermediate temperature corrosion behaviour of Fe-12Cr-6Al-2Mo-0.2Si-0.03Y alloy (C26M) at 300â€“600â€¯Â°C. Corrosion Science, 2019, 157, 274-283.	6.6	17
53	Manufacturing Oxide Dispersion-Strengthened (ODS) Steel Fuel Cladding Tubes Using the Cold Spray Process. Jom, 2019, 71, 2868-2873.	1.9	13
54	Microstructure response of ferritic/martensitic steel HT9 after neutron irradiation: effect of dose. Journal of Nuclear Materials, 2019, 523, 421-433.	2.7	25

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55	Microscale shear specimens for evaluating the shear deformation in single-crystal and nanocrystalline Cu and at Cuâ€“Si interfaces. Journal of Materials Research, 2019, 34, 1574-1583.	2.6	12
56	Effect of High-Density Nanoparticles on Recrystallization and Texture Evolution in Ferritic Alloys. Crystals, 2019, 9, 172.	2.2	4
57	Outstanding radiation resistance of tungsten-based high-entropy alloys. Science Advances, 2019, 5, eaav2002.	10.3	360
58	Nanomechanical properties of pristine and heavy ion irradiated nanocrystalline tungsten. Scripta Materialia, 2019, 166, 159-163.	5.2	14
59	Unprecedented irradiation resistance of nanocrystalline tungsten with equiaxed nanocrystalline grains to dislocation loop accumulation. Acta Materialia, 2019, 165, 118-128.	7.9	61
60	In-situ irradiation tolerance investigation of high strength ultrafine tungsten-titanium carbide alloy. Acta Materialia, 2019, 164, 547-559.	7.9	37
61	Emulating Neutron-Induced Void Swelling in Stainless Steels Using Ion Irradiation. Minerals, Metals and Materials Series, 2019, , 669-680.	0.4	1
62	Failure Analysis of a Radio-Activated Accelerator Component. , 2019, , .		0
63	Loop and void damage during heavy ion irradiation on nanocrystalline and coarse grained tungsten: Microstructure, effect of dpa rate, temperature, and grain size. Acta Materialia, 2018, 149, 206-219.	7.9	92
64	Radiation resistance of oxide dispersion strengthened alloys: Perspectives from in situ observations and rate theory calculations. Scripta Materialia, 2018, 148, 33-36.	5.2	14
65	Microstructure and mechanical properties of FeCrAl alloys under heavy ion irradiations. Journal of Nuclear Materials, 2018, 503, 250-262.	2.7	60
66	Texture evolution and microcracking mechanisms in as-extruded and cross-rolled conditions of a 14YWT nanostructured ferritic alloy. Acta Materialia, 2018, 152, 338-357.	7.9	26
67	Chemical vapor deposition of Mo tubes for fuel cladding applications. Surface and Coatings Technology, 2018, 337, 510-515.	4.8	8
68	Detailed transmission electron microscopy study on the mechanism of dislocation loop rafting in tungsten. Acta Materialia, 2018, 147, 277-283.	7.9	37
69	Softening due to Grain Boundary Cavity Formation and its Competition with Hardening in Helium Implanted Nanocrystalline Tungsten. Scientific Reports, 2018, 8, 2897.	3.3	35
70	High temperature microstructural stability and recrystallization mechanisms in 14YWT alloys. Acta Materialia, 2018, 148, 467-481.	7.9	36
71	Direct comparison of nanoindentation and tensile test results on reactor-irradiated materials. Journal of Nuclear Materials, 2018, 504, 135-143.	2.7	39
72	Emulating Neutron-Induced Void Swelling in Stainless Steels Using Ion Irradiation. Minerals, Metals and Materials Series, 2018, , 669-680.	0.4	1

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73	Thermal desorption spectroscopy of high fluence irradiated ultrafine and nanocrystalline tungsten: helium trapping and desorption correlated with morphology. Nuclear Fusion, 2018, 58, 016020.	3.5	25
74	Nanohardness measurements of heavy ion irradiated coarse- and nanocrystalline-grained tungsten at room and high temperature. Journal of Nuclear Materials, 2018, 509, 276-284.	2.7	25
75	Effect of dose on irradiation-induced loop density and Burgers vector in ion-irradiated ferritic/martensitic steel HT9. Philosophical Magazine, 2018, 98, 2440-2456.	1.6	16
76	Does sink efficiency unequivocally characterize how grain boundaries impact radiation damage?. Physical Review Materials, 2018, 2, .	2.4	5
77	Effect of self-ion irradiation on the microstructural changes of alloy EK-181 in annealed and severely deformed conditions. Journal of Nuclear Materials, 2017, 487, 96-104.	2.7	30
78	Stability of nanosized oxides in ferrite under extremely high dose self ion irradiations. Journal of Nuclear Materials, 2017, 486, 86-95.	2.7	51
79	Grain size threshold for enhanced irradiation resistance in nanocrystalline and ultrafine tungsten. Materials Research Letters, 2017, 5, 343-349.	8.7	81
80	Effect of tube processing methods on microstructure, mechanical properties and irradiation response of 14YWT nanostructured ferritic alloys. Acta Materialia, 2017, 134, 116-127.	7.9	49
81	Stability of nanoclusters in an oxide dispersion strengthened alloy under neutron irradiation. Scripta Materialia, 2017, 138, 57-61.	5.2	15
82	Ion-irradiation-induced microstructural modifications in ferritic/martensitic steel T91. Journal of Nuclear Materials, 2017, 490, 305-316.	2.7	32
83	Influence of injected interstitials on the void swelling in two structural variants of 304L stainless steel induced by self-ion irradiation at 500 Â°C. Nuclear Instruments & Methods in Physics Research B, 2017, 409, 323-327.	1.4	23
84	A comparative assessment of the fracture toughness behavior of ferritic-martensitic steels and nanostructured ferritic alloys. Journal of Nuclear Materials, 2017, 484, 157-167.	2.7	20
85	Spherical nanoindentation of proton irradiated 304 stainless steel: A comparison of small scale mechanical test techniques for measuring irradiation hardening. Journal of Nuclear Materials, 2017, 493, 368-379.	2.7	40
86	On delamination toughening of a 14YWT nanostructured ferritic alloy. Acta Materialia, 2017, 136, 61-73.	7.9	23
87	Irradiation-resistant ferritic and martensitic steels as core materials for Generation IV nuclear reactors. , 2017, , 329-355.		15
88	Stereographic Methods for 3D Characterization of Dislocations. Microscopy and Microanalysis, 2017, 23, 210-211.	0.4	13
89	Temperature dependent dispersoid stability in ion-irradiated ferritic-martensitic dual-phase oxide-dispersion-strengthened alloy: Coherent interfaces vs. incoherent interfaces. Acta Materialia, 2016, 116, 29-42.	7.9	73
90	MoSi₂ Oxidation in 670â€“1498 K Water Vapor. Journal of the American Ceramic Society, 2016, 99, 1412-1419.	3.8	21

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91	Grazing incidence X-ray diffraction and transmission electron microscopy studies on the oxide formation of molybdenum in a water vapor environment. Scripta Materialia, 2016, 120, 49-53.	5.2	6
92	High energy X-ray diffraction study of the relationship between the macroscopic mechanical properties and microstructure of irradiated HT-9 steel. Journal of Nuclear Materials, 2016, 475, 46-56.	2.7	9
93	Neutron irradiation effects in Fe and Fe-Cr at 300ÂÂ°C. Acta Materialia, 2016, 111, 407-416.	7.9	54
94	Radiation response of alloy T91 at damage levels up to 1000 peak dpa. Journal of Nuclear Materials, 2016, 482, 257-265.	2.7	59
95	Tensile deformation and fracture properties of a 14YWT nanostructured ferritic alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 675, 437-448.	5.6	37
96	Characterization and comparative analysis of the tensile properties of five tempered martensitic steels and an oxide dispersion strengthened ferritic alloy irradiated at â‰ˆ295ÂÂ°C to â‰ˆ6.5Âdpa. Journal of Nuclear Materials, 2016, 468, 232-239.	2.7	28
97	Degradation of HT9 under simultaneous ion beam irradiation and liquid metal corrosion. Journal of Nuclear Materials, 2016, 479, 382-389.	2.7	34
98	Effect of shock loading on the microstructure, mechanical properties and grain boundary characteristics of HT-9 ferritic/martensitic steels. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 651, 75-82.	5.6	10
99	Effect of tube processing methods on the texture and grain boundary characteristics of 14YWT nanostructured ferritic alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 661, 222-232.	5.6	32
100	Thermally Induced Interdiffusion and Precipitation in a Ni/Ni₃Al System. Materials Research Letters, 2015, 3, 169-176.	8.7	5
101	An intermetallic forming steel under radiation for nuclear applications. Journal of Nuclear Materials, 2015, 458, 361-368.	2.7	8
102	Superior radiation-resistant nanoengineered austenitic 304L stainless steel for applications in extreme radiation environments. Scientific Reports, 2015, 5, 7801.	3.3	82
103	Proton irradiation damage of an annealed Alloy 718 beam window. Journal of Nuclear Materials, 2015, 459, 103-113.	2.7	6
104	Investigation of Portevinâ^'Le Chatelier effect in HT-9 steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 631, 120-125.	5.6	21
105	Microstructure, chemistry and mechanical properties of Ni-based superalloy Rene N4 under irradiation at room temperature. Acta Materialia, 2015, 95, 357-365.	7.9	46
106	Resilient ZnO nanowires in an irradiation environment: An in situ study. Acta Materialia, 2015, 95, 156-163.	7.9	22
107	Atom probe study of irradiation-enhanced Î±â€² precipitation in neutron-irradiated Feâ€“Cr model alloys. Journal of Nuclear Materials, 2015, 462, 242-249.	2.7	46
108	In-situ tube burst testing and high-temperature deformation behavior of candidate materials for accident tolerant fuel cladding. Journal of Nuclear Materials, 2015, 466, 417-425.	2.7	23

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109	Surface modification of low activation ferriticâ€“martensitic steel EK-181 (Rusfer) by high temperature pulsed plasma flows. Nuclear Instruments & Methods in Physics Research B, 2015, 365, 218-221.	1.4	6
110	Concepts for the Development of Nanoscale Stable Precipitation-Strengthened Steels Manufactured by Conventional Methods. Jom, 2014, 66, 2467-2475.	1.9	1
111	Investigation of temperature dependence of fracture toughness in high-dose HT9 steel using small-specimen reuse technique. Journal of Nuclear Materials, 2014, 444, 206-213.	2.7	11
112	High temperature oxidation of molybdenum in water vapor environments. Journal of Nuclear Materials, 2014, 448, 441-447.	2.7	72
113	Effect of bulk oxygen on 14YWT nanostructured ferritic alloys. Journal of Nuclear Materials, 2014, 444, 35-38.	2.7	30
114	In situ neutron diffraction study on temperature dependent deformation mechanisms of ultrafine grained austenitic Feâ€“14Crâ€“16Ni alloy. International Journal of Plasticity, 2014, 53, 125-134.	8.8	10
115	Temperature and grain size dependent plastic instability and strain rate sensitivity of ultrafine grained austenitic Feâ€“14Crâ€“16Ni alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 597, 415-421.	5.6	20
116	Emulation of reactor irradiation damage using ion beams. Scripta Materialia, 2014, 88, 33-36.	5.2	229
117	Fracture behavior of 9Cr nanostructured ferritic alloy with improved fracture toughness. Journal of Nuclear Materials, 2014, 449, 39-48.	2.7	33
118	Nanoindentation creep study on an ion beam irradiated oxide dispersion strengthened alloy. Journal of Nuclear Materials, 2014, 451, 162-167.	2.7	32
119	Thermal annealing recovery of fracture toughness in HT9 steel after irradiation to high doses. Journal of Nuclear Materials, 2014, 449, 263-272.	2.7	14
120	Process development for 9Cr nanostructured ferritic alloy (NFA) with high fracture toughness. Journal of Nuclear Materials, 2014, 449, 290-299.	2.7	41
121	Temperature dependence of dissolution rate of a lead oxide mass exchanger in leadâ€“bismuth eutectic. Journal of Nuclear Materials, 2014, 450, 270-277.	2.7	24
122	In situ study of defect migration kinetics in nanoporous Ag with enhanced radiation tolerance. Scientific Reports, 2014, 4, 3737.	3.3	67
123	Small Specimen Reuse Technique to Evaluate Fracture Toughness of High Dose HT9 Steel. , 2014, , 1-22.		1
124	Mechanical Performance of Ferritic Martensitic Steels for High Dose Applications in Advanced Nuclear Reactors. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 70-83.	2.2	60
125	Heavy-ion irradiation defect accumulation in ZrN characterized by TEM, GIXRD, nanoindentation, and helium desorption. Journal of Nuclear Materials, 2013, 435, 77-87.	2.7	109
126	Study of irradiated mod.9Crâ€“1Mo steel by synchrotron extended X-ray absorption fine structure. Journal of Nuclear Materials, 2013, 441, 674-680.	2.7	12

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127	SANS and TEM of ferriticâ€“martensitic steel T91 irradiated in FFTF up to 184dpa at 413Â°C. Journal of Nuclear Materials, 2013, 440, 91-97.	2.7	36
128	He+ ion irradiation response of Feâ€“TiO2 multilayers. Journal of Nuclear Materials, 2013, 435, 96-101.	2.7	15
129	Neutron and X-ray diffraction analysis of the effect of irradiation dose and temperature on microstructure of irradiated HT-9 steel. Journal of Nuclear Materials, 2013, 443, 522-530.	2.7	22
130	Heavy Liquid Metal Corrosion of Structural Materials in Advanced Nuclear Systems. Jom, 2013, 65, 1057-1066.	1.9	27
131	Transmission electron microscopy (TEM) on oxide layers formed on D9 stainless steel in lead bismuth eutectic (LBE). Corrosion Science, 2013, 66, 196-202.	6.6	54
132	Irradiation dose and temperature dependence of fracture toughness in high dose HT9 steel from the fuel duct of FFTF. Journal of Nuclear Materials, 2013, 432, 1-8.	2.7	23
133	Role of stored defects on the mechanical response of shock prestrained HT-9 Steel. AIP Conference Proceedings, 2012, , .	0.4	1
134	Application of small-scale testing for investigation of ion-beam-irradiated materials. Journal of Materials Research, 2012, 27, 2724-2736.	2.6	80
135	The Suitability of the Materials Test Station for Fusion Materials Irradiations. Fusion Science and Technology, 2012, 62, 289-294.	1.1	2
136	On the structure and chemistry of complex oxide nanofeatures in nanostructured ferritic alloy U14YWT. Philosophical Magazine, 2012, 92, 2089-2107.	1.6	40
137	Development and analysis of diffusion bonding techniques for LBE-cooled spallation targets. Journal of Nuclear Materials, 2012, 431, 185-195.	2.7	1
138	Fabrication of a tantalum-clad tungsten target for LANSCE. Journal of Nuclear Materials, 2012, 431, 172-184.	2.7	35
139	Water corrosion measurements on tungsten irradiated with high energy protons and spallation neutrons. Journal of Nuclear Materials, 2012, 431, 140-146.	2.7	14
140	Phase stability of an HT-9 duct irradiated in FFTF. Journal of Nuclear Materials, 2012, 430, 194-204.	2.7	55
141	In situ neutron diffraction and Elasticâ€“Plastic Self-Consistent polycrystal modeling of HT-9. Journal of Nuclear Materials, 2012, 425, 228-232.	2.7	5
142	Enhanced radiation tolerance of ultrafine grained Feâ€“Crâ€“Ni alloy. Journal of Nuclear Materials, 2012, 420, 235-240.	2.7	78
143	Structural, electrical and magnetic measurements on oxide layers grown on 316L exposed to liquid leadâ€“bismuth eutectic. Journal of Nuclear Materials, 2012, 421, 140-146.	2.7	18
144	Impact properties of irradiated HT9 from the fuel duct of FFTF. Journal of Nuclear Materials, 2012, 421, 104-111.	2.7	20

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145	Issues to consider using nano indentation on shallow ion beam irradiated materials. Journal of Nuclear Materials, 2012, 425, 136-139.	2.7	176
146	Irradiation creep and density changes observed in MA957 pressurized tubes irradiated to doses of 40â€“110dpa at 400â€“750Â°C in FFTF. Journal of Nuclear Materials, 2012, 428, 170-175.	2.7	22
147	On the LME susceptibility of Si enriched steels. Journal of Nuclear Materials, 2012, 429, 105-112.	2.7	39
148	Thermal stability of ultrafine grained Feâ€“Crâ€“Ni alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 542, 64-70.	5.6	32
149	Small-Scale Testing of In-Core Fast Reactor Materials. Journal of Nuclear Science and Technology, 2011, 48, 575-579.	1.3	6
150	In situ nanocompression testing of irradiatedÂcopper. Nature Materials, 2011, 10, 608-613.	27.5	268
151	Defect studies of stainless steel via positron annihilation energy spectroscopy. Journal of Physics: Conference Series, 2011, 265, 012011.	0.4	1
152	Plastic deformation in zirconium nitride observed by nanoindentation and TEM. Journal of Nuclear Materials, 2011, 416, 253-261.	2.7	12
153	Macro and microscale mechanical testing and local electrode atom probe measurements of STIP irradiated F82H, Feâ€“8Cr ODS and Feâ€“8Crâ€“2W ODS. Journal of Nuclear Materials, 2011, 417, 274-278.	2.7	21
154	Shear punch testing of candidate reactor materials after irradiation in fast reactors and spallation environments. Journal of Nuclear Materials, 2011, 417, 1005-1008.	2.7	12
155	Core materials development for the fuel cycle R&D program. Journal of Nuclear Materials, 2011, 415, 302-305.	2.7	30
156	Relative Defect Density Measurements of Laser Shock Peened 316L Stainless Steel Using Positron Annihilation Spectroscopy. Journal of Nondestructive Evaluation, 2011, 30, 221-224.	2.4	2
157	Large and Small Scale Materials Testing of HT-9 Irradiated in the STIP Irradiation Program. Experimental Mechanics, 2011, 51, 1095-1102.	2.0	19
158	Microstructural stability of an HT-9 fuel assembly duct irradiated in FFTF. Journal of Nuclear Materials, 2011, 414, 237-242.	2.7	37
159	Nanostructured Engineering Alloys for Nuclear Application. Materials Research Society Symposia Proceedings, 2011, 1298, 217.	0.1	1
160	Small-Scale Testing of In-Core Fast Reactor Materials. Journal of Nuclear Science and Technology, 2011, 48, 575-579.	1.3	0
161	Models of liquid metal corrosion. Journal of Nuclear Materials, 2010, 404, 82-96.	2.7	113
162	Liquid metal embrittlement of silicon enriched steel for nuclear applications. Journal of Nuclear Materials, 2010, 398, 116-121.	2.7	35

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163	Micro-structural characterization of laboratory heats of the Ferric/Martensitic steels HT-9 and T91. Journal of Nuclear Materials, 2010, 403, 7-14.	2.7	17
164	Grain refinement of T91 alloy by equal channel angular pressing. Journal of Nuclear Materials, 2009, 389, 221-224.	2.7	32
165	He ion irradiation damage in Fe/W nanolayer films. Journal of Nuclear Materials, 2009, 389, 233-238.	2.7	179
166	Oxygen effects on irradiated tantalum alloys. Journal of Nuclear Materials, 2009, 384, 25-29.	2.7	13
167	Nanoindentation on ion irradiated steels. Journal of Nuclear Materials, 2009, 389, 239-247.	2.7	111
168	Microstructural analysis of an HT9 fuel assembly duct irradiated in FFTF to 155dpa at 443Â°C. Journal of Nuclear Materials, 2009, 393, 235-241.	2.7	75
169	Positron Annihilation Energy and Lifetime Spectroscopy Studies for Radiation Defects in Stainless Steel. , 2009, , .		0
170	An exploratory study to determine applicability of nano-hardness and micro-compression measurements for yield stress estimation. Journal of Nuclear Materials, 2008, 375, 135-143.	2.7	96
171	AFM and MFM characterization of oxide layers grown on stainless steels in lead bismuth eutectic. Journal of Nuclear Materials, 2008, 376, 289-292.	2.7	18
172	Dose dependence of mechanical properties in tantalum and tantalum alloys after low temperature irradiation. Journal of Nuclear Materials, 2008, 377, 72-79.	2.7	37
173	Modeling and simulation of irradiation hardening in structural ferritic steels for advanced nuclear reactors. Journal of Nuclear Materials, 2008, 377, 136-140.	2.7	49
174	Cladding and duct materials for advanced nuclear recycle reactors. Jom, 2008, 60, 15-23.	1.9	58
175	Corrosion of ODS steels in leadâ€“bismuth eutectic. Journal of Nuclear Materials, 2008, 373, 246-253.	2.7	79
176	The design, setup and operational testing of the irradiation and corrosion experiment (ICE). Journal of Nuclear Materials, 2008, 376, 392-395.	2.7	18
177	Status of materials handbooks for particle accelerator and nuclear reactor applications. Journal of Nuclear Materials, 2008, 377, 94-96.	2.7	8
178	Nanoscale characterization of HT-9 exposed to lead bismuth eutectic at 550Â°C for 3000h. Journal of Nuclear Materials, 2008, 381, 211-215.	2.7	17
179	A computational method to identify interstitial sites in complex materials. Scripta Materialia, 2008, 58, 739-742.	5.2	22
180	Structural, elastic, and electronic properties of Fe3C from first principles. Journal of Applied Physics, 2008, 103, .	2.5	134

#	Article	IF	Citations
181	Helium bubble nucleation in bcc iron studied by kinetic Monte Carlo simulations. Journal of Nuclear Materials, 2007, 361, 141-148.	2.7	45
182	The effects of helium on irradiation damage in single crystal iron. Journal of Nuclear Materials, 2007, 367-370, 451-456.	2.7	11
183	Kinetics of the Migration and Clustering of Extrinsic Gas in bcc Metals. Journal of ASTM International, 2007, 4, 100698.	0.2	2
184	Gamma-induced positron annihilation spectroscopy and application to radiation-damaged alloys. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2006, 562, 688-691.	1.6	10
185	Positron annihilation spectroscopy of proton irradiated single crystal BCC iron. Journal of Nuclear Materials, 2006, 351, 149-154.	2.7	3
186	Tensile testing of EP-823 and HT-9 after irradiation in STIP II. Journal of Nuclear Materials, 2006, 356, 56-61.	2.7	31
187	Summary of the 7th International Workshop on Spallation Materials Technology (IWSMT-7). Journal of Nuclear Materials, 2006, 356, 325-330.	2.7	1
188	The effects of fast reactor irradiation conditions on the tensile properties of two ferritic/martensitic steels. Journal of Nuclear Materials, 2006, 356, 62-69.	2.7	29
189	Influence of Shock Prestraining and Grain Size on the Dynamic-Tensile-Extrusion Response of Copper: Experiments and Simulation. AIP Conference Proceedings, 2006, , .	0.4	29
190	Kinetics of the Nucleation and Growth of Helium Bubbles in bcc Iron. Materials Research Society Symposia Proceedings, 2006, 929, 1.	0.1	1
191	Performance of a Clad Tungsten Rod Spallation Neutron Source Target. Nuclear Technology, 2005, 151, 303-313.	1.2	7
192	Annealing effects on mechanical properties and microstructure of F82H irradiated at â©½60Â°C with 800MeV protons. Journal of Nuclear Materials, 2005, 343, 241-246.	2.7	5
193	The effect of 800MeV proton irradiation on the mechanical properties of tungsten at room temperature and at 475Â°C. Journal of Nuclear Materials, 2005, 343, 219-226.	2.7	26
194	Tensile properties of the NLF reduced activation ferritic/martensitic steels after irradiation in a fast reactor spectrum to a maximum dose of 67dpa. Journal of Nuclear Materials, 2005, 341, 141-147.	2.7	7
195	Materials issues in a high power spallation target. Journal of Nuclear Materials, 2005, 343, 367.	2.7	4
196	The high temperature three point bend testing of proton irradiated 316L stainless steel and Mod 9Crâ€“1Mo. Journal of Nuclear Materials, 2005, 343, 191-196.	2.7	6
197	Microstructural evolution of both as-irradiated and subsequently deformed microstructures of 316L stainless steel irradiated at 30â€“160Â°C at LANSCE. Journal of Nuclear Materials, 2005, 345, 136-145.	2.7	12
198	The influence of shock-pulse shape on the structure/property behavior of copper and 316 L austenitic stainless steel. Acta Materialia, 2005, 53, 3293-3303.	7.9	61

#	Article	IF	Citations
199	The influence of explosive-driven shock prestraining at 35 GPa and of high deformation on the structure/property behavior of 316 L austenitic stainless steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2005, 36, 1825-1831.	2.2	11
200	Influence of shock prestraining on the formation of shear localization in 304 stainless steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2005, 36, 1471-1486.	2.2	59
201	The influence of explosive-driven â€œtaylor-waveâ€•shock prestraining on the structure/property behavior of 304 stainless steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2004, 35, 2617-2624.	2.2	24
202	Deuterium retention and release from highly irradiated annealed tungsten after exposure to a deuterium DC glow discharge. Journal of Nuclear Materials, 2004, 329-333, 977-981.	2.7	17
203	Failure analysis of a radio-activated accelerator component. Journal of Failure Analysis and Prevention, 2003, 3, 71-80.	0.0	1
204	Summary of the results from post-irradiation examination of spent targets at the FZ-Juelich. Journal of Nuclear Materials, 2003, 318, 56-69.	2.7	28
205	High temperature tensile testing of modified 9Crâ€“1Mo after irradiation with high energy protons. Journal of Nuclear Materials, 2003, 318, 200-206.	2.7	35
206	Comparison of fission neutron and proton/spallation neutron irradiation effects on the tensile behavior of type 316 and 304 stainless steel. Journal of Nuclear Materials, 2003, 318, 283-291.	2.7	36
207	Discussion session summary: radiation effects. Journal of Nuclear Materials, 2003, 318, 369-370.	2.7	0
208	The performance of high-temperature superconductors in space radiation environments. IEEE Transactions on Applied Superconductivity, 2003, 13, 1600-1603.	1.7	5
209	Temperature effects on the mechanical properties of candidate SNS target container materials after proton and neutron irradiation. Journal of Nuclear Materials, 2002, 303, 34-43.	2.7	32
210	Microstructural evolution in modified 9Crâ€“1Mo ferritic/martensitic steel irradiated with mixed high-energy proton and neutron spectra at low temperatures. Journal of Nuclear Materials, 2002, 307-311, 266-271.	2.7	24
211	Hydrogen release from 800 MeV proton-irradiated tungsten. Journal of Nuclear Materials, 2002, 307-311, 1418-1423.	2.7	13
212	Helium and hydrogen generation in pure metals irradiated with high-energy protons and spallation neutrons in LANSCE. Journal of Nuclear Materials, 2002, 307-311, 1471-1477.	2.7	14
213	Hydrogen Release From 800-MeV Proton-Irradiated Tungsten Rods. Physica Scripta, 2001, T94, 137.	2.5	3
214	Microstructural origins of radiation-induced changes in mechanical properties of 316 L and 304 L austenitic stainless steels irradiated with mixed spectra of high-energy protons and spallation neutrons. Journal of Nuclear Materials, 2001, 296, 112-118.	2.7	21
215	The mechanical properties of 316L/304L stainless steels, Alloy 718 and Mod 9Crâ€“1Mo after irradiation in a spallation environment. Journal of Nuclear Materials, 2001, 296, 119-128.	2.7	113
216	The mechanical properties of an Alloy 718 window after irradiation in a spallation environment. Journal of Nuclear Materials, 2001, 296, 139-144.	2.7	26

#	Article	IF	Citations
217	Correlation of radiation-induced changes in mechanical properties and microstructural development of Alloy 718 irradiated with mixed spectra of high-energy protons and spallation neutrons. Journal of Nuclear Materials, 2001, 296, 145-154.	2.7	36
218	Determination of helium and hydrogen yield from measurements on pure metals and alloys irradiated by mixed high energy proton and spallation neutron spectra in LANSCE. Journal of Nuclear Materials, 2001, 296, 66-82.	2.7	57
219	Fracture Toughness Characterization of 304L and 316L Austenitic Stainless Steels and Alloy 718 After Irradiation in High-Energy, Mixed Proton/Neutron Spectrum. , 2001, , 125-147.		4
220	Microstructural Alteration of Structural Alloys by Low Temperature Irradiation with High Energy Protons and Spallation Neutrons. , 2001, , 588-611.		3
221	Retention of Very High Levels of Helium and Hydrogen Generated in Various Structural Alloys by 800 MeV Protons and Spallation Neutrons. , 2001, , 612-630.		4
222	The Effect of High Energy Protons and Neutrons on the Tensile Properties of Materials Selected for the Target and Blanket Components in the Accelerator Production of Tritium Project. , 2001, , 644-659.		5
223	High-Energy Spallation Neutron Effects on the Tensile Properties of Materials for the Target and Blanket Components for the Accelerator Production of Tritium Project. , 2001, , 660-671.		0
224	Hydrogen and Helium Gas Formation and their Release Kinetics in Tungsten Rods after Irradiation with 800 MeV Protons. , 2001, , 762-774.		0
225	Spectral Unfolding of Mixed Proton/Neutron Fluences in the LANSCE Irradiation Environment. , 2001, , 167-174.		0
226	The Accelerator Production of Tritium Materials Test Program. Nuclear Technology, 2000, 132, 103-114.	1.2	6
227	Mechanical properties and microstructure in low-activation martensitic steels F82H and Optimax after 800-MeV proton irradiation. Journal of Nuclear Materials, 2000, 283-287, 513-517.	2.7	44
228	Microstructural evolution of Alloy 718 at high helium and hydrogen generation rates during irradiation with 600â€“800 MeV protons. Journal of Nuclear Materials, 2000, 283-287, 324-328.	2.7	31
229	Shear punch and tensile measurements of mechanical property changes induced in various austenitic alloys by high-energy mixed proton and neutron irradiation at low temperatures. Journal of Nuclear Materials, 2000, 283-287, 418-422.	2.7	26
230	Helium/Hydrogen Measurements in High-Energy Proton-Irradiated Tungsten. , 2000, , 1109-1121.		0
231	Microstructure in Martensitic Steel DIN 1.4926 after 800 MeV proton irradiation. Journal of Nuclear Materials, 1999, 265, 203-207.	2.7	25
232	Materials Selection and Qualification Processes at a High-Power Spallation Neutron Source. Materials Characterization, 1999, 43, 97-123.	4.4	6
233	Mechanical properties of monocrystalline C11b MoSi2 with small aluminum additions. Scripta Materialia, 1997, 37, 1599-1604.	5.2	38
234	High strain rate deformation of Ti48Al2Nb2Cr. Acta Materialia, 1996, 44, 1741-1756.	7.9	53

#	Article	IF	Citations
235	Elastic properties of C40 transition metal disilicides. Acta Materialia, 1996, 44, 3035-3048.	7.9	136
236	TEM Characterization of Invariant Line Interfaces and Structural Ledges in a Mo-Si Alloy. Materials Science Forum, 1996, 207-209, 117-120.	0.3	4
237	Impression creep behavior of SiC particle-MoSi₂ composites. Journal of Materials Research, 1996, 11, 1528-1536.	2.6	27
238	High strain rate deformation of NiAl. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1995, 192-193, 249-254.	5.6	11
239	Single crystal elastic constants of NbSi₂. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1995, 71, 373-382.	0.6	12
240	Morphology and interface structure of Mo5Si3precipitates in MoSi2. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1995, 72, 997-1013.	0.6	15
241	High temperature plastic anisotropy in MoSi2 single crystals. Acta Metallurgica Et Materialia, 1995, 43, 657-668.	1.8	90
242	Dislocation Decomposition, Dissociation, and Deformation in MoSi2 AND Î±-Al2Q3 Single Crystals. , 1995, , 53-62.		0
243	Chemical Reactions in the Processing of MoSi2 Carbon Compacts. Journal of the American Ceramic Society, 1993, 76, 2005-2009.	3.8	17
244	{103}âŸ331âŸ© slip in MoSi2. Philosophical Magazine Letters, 1993, 67, 313-321.	1.2	22
245	Precipitation of Mo₅Si₃ in MoSi₂. Journal of Materials Research, 1993, 8, 1079-1085.	2.6	13
246	Creep Behavior of MoSi2-SiC Composites. Materials Research Society Symposia Proceedings, 1993, 322, 197.	0.1	4
247	The Temperature and Strain Rate Dependence of the Flow Stress in MoSi2 Single Crystals. Materials Research Society Symposia Proceedings, 1993, 322, 21.	0.1	2
248	Dislocation decomposition and dissociation in molybdenum disilicide. Proceedings Annual Meeting Electron Microscopy Society of America, 1993, 51, 912-913.	0.0	0
249	On the slip systems in MoSi2. Acta Metallurgica Et Materialia, 1992, 40, 3159-3165.	1.8	65
250	Effects of carbon additions on the high temperature mechanical properties of molybdenum disilicide. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1992, 155, 159-163.	5.6	62
251	Dislocations, twins, grain boundaries and precipitates in MoSi2. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1992, 155, 241-249.	5.6	43
252	Carbon Additions to Molybdenum Disilicide: Improved High-Temperature Mechanical Properties. Journal of the American Ceramic Society, 1991, 74, 2704-2706.	3.8	162

#	Article	IF	Citations
253	Kinetics of the Migration and Clustering of Extrinsic Gas in bcc Metals. , 0, , 177-177-13.		0