Lawrence R Greenwood

List of Publications by Year
in descending order

90	2,153	304743 22	265206 42
papers	citations	h-index	g-index

93	93	93	1063
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Influence of irradiation temperature and dose gradients on the microstructural evolution in neutron-irradiated 316SS. Journal of Nuclear Materials, 2003, 317, 32-45.	2.7	141
2	Neutron dosimetry and damage calculations for the TRIGA MARK-II reactor in Vienna. Journal of Nuclear Materials, 1986, 137, 236-240.	2.7	103
3	A new calculation of thermal neutron damage and helium production in nickel. Journal of Nuclear Materials, 1983, 115, 137-142.	2.7	102
4	Neutron interactions and atomic recoil spectra. Journal of Nuclear Materials, 1994, 216, 29-44.	2.7	92
5	Transmutation of Mo, Re, W, Hf, and V in various irradiation test facilities and STARFIRE. Journal of Nuclear Materials, 1994, 212-215, 635-639.	2.7	91
6	Evaluation of the new cesium-131 seed for use in low-energy x-ray brachytherapy. Medical Physics, 2004, 31, 1529-1538.	3.0	89
7	Subcascade formation in displacement cascade simulations: Implications for fusion reactor materials. Journal of Nuclear Materials, 1999, 271-272, 57-62.	2.7	87
8	Retention of hydrogen in fcc metals irradiated at temperatures leading to high densities of bubbles or voids. Journal of Nuclear Materials, 2006, 356, 122-135.	2.7	85
9	Defect cascades produced by neutron irradiation in YBa2Cu3O7â^Î´. Physica C: Superconductivity and Its Applications, 1994, 232, 309-327.	1.2	78
10	The primary origin of dose rate effects on microstructural evolution of austenitic alloys during neutron irradiation. Journal of Nuclear Materials, 2002, 307-311, 322-326.	2.7	69
11	Displacement damage in silicon carbide irradiated in fission reactors. Journal of Nuclear Materials, 2004, 327, 175-181.	2.7	69
12	Determination of the neutron flux and energy spectrum in the low-temperature fast-neutron facility in CP-5, calculations of primary-recoil and damage-energy distributions, and comparisons with experiment. Journal of Nuclear Materials, 1979, 80, 159-171.	2.7	63
13	Defect structure and evolution in silicon carbide irradiated to 1 dpa-SiC at 1100 Â°C. Journal of Nuclear Materials, 2003, 317, 145-159.	2.7	58
14	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
15	Analysis of data from sensitive U.S. monitoring stations for the Fukushima Dai-ichi nuclear reactor accident. Journal of Environmental Radioactivity, 2012, 114, 15-21.	1.7	51
16	Defect production rates in metals by reactor neutron irradiation at 4.6 K. Journal of Nuclear Materials, 1988, 152, 146-153.	2.7	47
17	Hydrogen generation arising from the59Ni(n, p) reaction and its impact on fissionâ€"fusion correlations. Journal of Nuclear Materials, 1996, 233-237, 1530-1534.	2.7	47
18	Nuclear Archeology in a Bottle: Evidence of Pre-Trinity U.S. Weapons Activities from a Waste Burial Site. Analytical Chemistry, 2009, 81, 1297-1306.	6.5	37

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19	Neutron source characterization and radiation damage calculations for material studies. Journal of Nuclear Materials, 1982, 108-109, 21-27.	2.7	33
20	A comparison of measured and calculated helium production in nickel using newly evaluated neutron cross sections for 59Ni. Journal of Nuclear Materials, 1984, 123, 1002-1010.	2.7	33
21	Displacement damage cross sections for neutron-irradiated silicon carbide. Journal of Nuclear Materials, 2002, 307-311, 895-899.	2.7	28
22	Synergistic influence of displacement rate and helium/dpa ratio on swelling of Feâ€“(9, 12)Cr binary alloys in FFTF at â^¼400 Â°C. Journal of Nuclear Materials, 2004, 329-333, 1008-1012.	2.7	23
23	A high-resolution study of the 40Ca(16O, 12C)44Ti reaction. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1973, 47, 335-338.	4.1	22
24	Measurement of fast-neutron activation cross sections for copper, europium, hafnium, iron, nickel, silver, terbium and titanium at 10.0 and 14.7 MeV and for the Be(d,n) thick-target spectrum. Annals of Nuclear Energy, 1996, 23, 877-899.	1.8	22
25	Neutron irradiation facilities at the intense pulsed neutron source. Journal of Nuclear Materials, 1982, 108-109, 3-9.	2.7	21
26	Vitrification and testing of a Hanford high-level waste sample. Part 1: Glass fabrication, and chemical and radiochemical analysis. Journal of Nuclear Materials, 2005, 345, 19-30.	2.7	21
27	Accelerated materials evaluation for nuclear applications. Journal of Nuclear Materials, 2017, 488, 46-62.	2.7	21
28	The influence of transmutation, void swelling, and flux/spectra uncertainties on the electrical properties of copper and copper alloys. Journal of Nuclear Materials, 1994, 212-215, 404-409.	2.7	19
29	The influence of starting state on neutron induced density changes observed in Nb-1Zr and Mo-41Re at high exposures. Journal of Nuclear Materials, 1994, 212-215, 426-430.	2.7	19
30	Vitrification and testing of a Hanford high-level waste sample. Part 2: Phase identification and waste form leachability. Journal of Nuclear Materials, 2005, 345, 31-40.	2.7	19
31	Swelling of spinel after low-dose neutron irradiation. Journal of Nuclear Materials, 1986, 141-143, 382-386.	2.7	16
32	An assessment of the 59Ni isotopic tailoring technique to study the influence of ratio. Journal of Nuclear Materials, 1994, 212-215, 492-497.	2.7	16
33	The dependence of helium generation rate on nickel content of Feâ€“Crâ€“Ni alloys irradiated to high dpa levels in EBR-II. Journal of Nuclear Materials, 1998, 258-263, 1740-1744.	2.7	16
34	SPECOMP Calculations of Radiation Damage in Compounds. , 1989, , 598-602.		16
35	Swelling, irradiation creep and growth of pure rhenium irradiated with fast neutrons at 1030â€“1330Â°C. Journal of Nuclear Materials, 2000, 283-287, 380-385.	2.7	15
36	High-sensitivity quadrupole mass spectometry system for the determination of hydrogen in irradiated materials. Journal of Nuclear Materials, 2000, 283-287, 1006-1010.	2.7	14

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37	Damage parameters for candidate fusion materials irradiation test facilities. Journal of Nuclear Materials, 1990, 174, 125-134.	2.7	13
38	Influence of flux-spectra differences on transmutation, dimensional changes and fracture of vanadium alloys. Journal of Nuclear Materials, 1996, 233-237, 406-410.	2.7	13
39	Accelerated helium and hydrogen production in 54Fe doped alloys â€“ measurements and calculations for the FIST experiment. Journal of Nuclear Materials, 2000, 283-287, 1438-1442.	2.7	13
40	INTERNATIONAL REACTOR DOSIMETRY FILE: IRDF-2002. , 2003, , .		12
41	New method for measuring ion temperatures in hot Dâ€“T plasma. Review of Scientific Instruments, 1985, 56, 1078-1080.	1.3	11
42	Impact of transmutation issues on interpretation of data obtained from fast reactor irradiation experiments. Journal of Nuclear Materials, 2004, 329-333, 1147-1150.	2.7	11
43	Measurements of neutron spectra and fluxes at spallation-neutron sources and their application to radiation effects research. Journal of Nuclear Materials, 1981, 96, 37-50.	2.7	10
44	Production of long-lived activities in fusion materials. Journal of Nuclear Materials, 1988, 155-157, 585-588.	2.7	8
45	Helium generation rates in isotopically tailored Feî—¸Crî—¸Ni alloys irradiated in FFTF/MOTA. Journal of Nuclear Materials, 1992, 191-194, 1051-1055.	2.7	8
46	Recent results for the ferritics isotopic tailoring (FIST) experiment. Journal of Nuclear Materials, 2002, 307-311, 212-216.	2.7	8
47	Microstructure and tensile properties of T (d,n) and Be (d,n) neutron irradiated nickel, niobium and 316SS. Journal of Nuclear Materials, 1979, 85-86, 889-893.	2.7	7
48	A new technique for enhancing helium production in ferritic materials. Journal of Nuclear Materials, 1988, 155-157, 1335-1339.	2.7	7
49	Determination of neutron exposure of AISI 304 stainless steel from a BWR top guide using retrospective dosimetry. Journal of Nuclear Materials, 2007, 361, 1-9.	2.7	7
50	Least-Squares Neutron Spectral Adjustment with STAYSL PNNL. EPJ Web of Conferences, 2016, 106, 07001.	0.3	7
51	6Li-salicylate neutron detectors with pulse shape discrimination. Nuclear Instruments & Methods, 1979, 165, 129-131.	1.2	6
52	Experience in irradiation testing of low-activation structural materials in fast reactor BOR-60. Journal of Nuclear Materials, 1998, 258-263, 1458-1465.	2.7	6
53	Fission product analysis of HEU irradiated within a boron carbide capsule: comparison of detection methodology at PNNL and AWE. Journal of Radioanalytical and Nuclear Chemistry, 2016, 307, 1729-1734.	1.5	6
54	Low-background gamma-ray spectrometry for the international monitoring system. Applied Radiation and Isotopes, 2017, 126, 240-242.	1.5	6

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55	An Evaluation of Neutron Energy Spectrum Effects in Iron Based on Molecular Dynamics Displacement Cascade Simulations. , 2000, , 548-559.		6
56	A Reevaluation of Helium/dpa and Hydrogen/dpa Ratios for Fast Reactor and Thermal Reactor Data Used in Fission-Fusion Correlations. , 1999, , 794-807.		6
57	Neutron source characterization for fusion materials studies. Journal of Nuclear Materials, 1981, 104, 1433-1437.	2.7	5
58	Recent developments in neutron dosimetry and radiation damage calculations for fusion materials studies. Journal of Nuclear Materials, 1984, 123, 1011-1016.	2.7	5
59	Construction of a shallow underground low-background detector for a CTBT radionuclide laboratory. Journal of Radioanalytical and Nuclear Chemistry, 2013, 296, 1061-1064.	1.5	5
60	Design and testing of a 10B4C capsule for spectral-tailoring in mixed-spectrum reactors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2014, 743, 121-123.	1.6	5
61	Radiation effects related to repaired BWR core shrouds. Journal of Nuclear Materials, 2021, 551, 152932.	2.7	5
62	An Evaluation of Through-Thickness Changes in Primary Damage Production in Commercial Reactor Pressure Vessels. , 2001, , 204-217.		5
63	4+ and 6+ core-excited states in 20Ne. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1974, 52, 51-53.	4.1	4
64	Stable multibubble sonoluminescence bubble patterns. Ultrasonics, 2006, 44, e445-e449.	3.9	4
65	New ideas in dosimetry and damage calculations for fusion materials irradiations. Journal of Nuclear Materials, 1986, 141-143, 654-657.	2.7	3
66	Measurement of the 9Be(n,2n)8Be reaction cross section in the 9Be(d,n) thick-target neutron spectrum. Annals of Nuclear Energy, 1994, 21, 155-164.	1.8	3
67	Calculation and measurement of helium generation and solid transmutants in Cuâ€“Znâ€“Ni alloys. Journal of Nuclear Materials, 1998, 258-263, 985-989.	2.7	3
68	Neutron Irradiation of Superconductors and Damage Energy Scaling of Different Neutron Spectra. , 1986, , 865-872.		3
69	An Assessment of Potential Gamma Ray Enhancement of Embrittlement in ABWR Pressure Vessel Walls. , 1999, , 52-74.		3
70	Integral tests of nuclear activation cross sections for Be (d,n) sources, Ed = 14â€“40 MeV. Journal of Nuclear Materials, 1979, 85-86, 473-477.	2.7	2
71	l determinations for 12C + 12C. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1982, 108, 95-97.	4.1	2
72	Helium production in HFIR-irradiated pure elements. Journal of Nuclear Materials, 1986, 141-143, 824-828.	2.7	2

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73	The low-temperature neutron irradiation facility at Oak Ridge National Laboratory. Journal of Nuclear Materials, 1989, 166, 379-390.	2.7	2
74	The impact of spectral effects in fast reactors on data analysis and development of fission-fusion correlations. Journal of Nuclear Materials, 1992, 191-194, 1096-1100.	2.7	2
75	Neutronics comparisons of d-Li and t-H2O neutron sources. Journal of Nuclear Materials, 1995, 218, 37-41.	2.7	2
76	Gas Production in Reactor Materials. Journal of ASTM International, 2006, 3, 13485.	0.2	2
77	RETROSPECTIVE REACTOR DOSIMETRY FOR NEUTRON FLUENCE, HELIUM, AND BORON MEASUREMENTS. , 2003, , .		2
78	Tritium production and distribution in a zircaloy-clad Li7Pb2 assembly irradiated in the oak ridge research reactor. Journal of Nuclear Materials, 1983, 118, 275-285.	2.7	1
79	The breeding blanket interface (BBI): recent results for the solid breeder and the aqueous salt solution blanket concepts. , 0, , .		1
80	Comparison of measured and calculated transmutation in copper at spallation neutron sources. Journal of Nuclear Materials, 1992, 191-194, 1383-1386.	2.7	1
81	From Molecular Dynamics to Kinetic Rate Theory: A Simple Example of Multiscale Modeling. Materials Research Society Symposia Proceedings, 1998, 538, 203.	0.1	1
82	Integral Testing of Spallation Cross Sections for Neutron Dosimetry at 113 and 256 MeV. , 2001, , 409-416.		1
83	A Comparison of the NRT Displacement Model and Primary Damage Formation Observed in Molecular Dynamics Cascade Simulations. , 2001, , 633-640.		1
84	Enhancement of STAYSL_PNNL with IRDFF/V1.05 to 60 MeV. , 2018, , 265-275.		0
85	Surprisingly Large Generation and Retention of Helium and Hydrogen in Pure Nickel Irradiated at High Temperatures and High Neutron Exposures. , 2004, , 529-539.		0
86	Calculated Production of High-Energy Neutrons by 800-MeV Protons. , 0, , 3-3-9.		0
87	Measurement and Calculation of Helium Generation in Beryllium Pebbles Irradiated in EBR-II. , 2000, , 1062-1074.		0
88	Isotopic Tailoring with 59Ni to Study Helium Generation Rates and Their Effect on Tensile Properties of Neutron-Irradiated Fe-Cr-Ni Alloys. , 1994, , 921-939.		0
89	Calculation of Transmutation in Copper and Comparison with Measured Electrical Properties. , 1994, , 500-508.		0
90	Radiation Dosimetry at the BNL High Flux Beam Reactor and Medical Research Reactor. , 2001, , 223-230.		0