

Douglas L Porter

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

76
papers

2,381
citations

24
h-index

48
g-index

86
ext. papers

2,570
ext. citations

3.1
avg. IF

4.61
L-index

#	Paper	IF	Citations
76	An Analysis of Fluff Formation in Metallic Fuel via Data Analyses from EBR-II Experiments and BISON Fuel Code Modeling. <i>Journal of Nuclear Materials</i> , 2022 , 153813	3.3	
75	Initial demonstration of automated fuel performance modeling with 1977 EBR-II metallic fuel pins using BISON code with FIPD and IMIS databases. <i>Nuclear Engineering and Design</i> , 2021 , 382, 111393	1.8	7
74	Automatic information extraction from neutron radiography imaging to estimate axial fuel expansion in EBR-II. <i>Journal of Nuclear Materials</i> , 2021 , 557, 153250	3.3	0
73	Behavior of metallic fast reactor fuels during an overpower transient. <i>Journal of Nuclear Materials</i> , 2021 , 557, 153304	3.3	1
72	Cladding Profilometry Analysis of Experimental Breeder Reactor-II Metallic Fuel Pins with HT9, D9, and SS316 Cladding. <i>Energies</i> , 2021 , 14, 515	3.1	5
71	Fuel Design and Fabrication: Fast-Reactor Metal Fuels 2021 , 308-317		1
70	Irradiation performance of nonfertile (Pu-MA-Zr) fast reactor metal fuels. <i>Journal of Nuclear Materials</i> , 2020 , 542, 152480	3.3	2
69	U-10Zr and U-5Fs: Fuel/cladding chemical interaction behavior differences. <i>Journal of Nuclear Materials</i> , 2020 , 528, 151840	3.3	7
68	HT9 swelling in high burnup fast reactor fuel pin components. <i>Journal of Nuclear Materials</i> , 2019 , 519, 205-216	3.3	5
67	Postirradiation examination on metallic fuel in the AFC-2 irradiation test series. <i>Journal of Nuclear Materials</i> , 2018 , 509, 454-464	3.3	8
66	Scanning electron microscopy examination of a Fast Flux Test Facility irradiated U-10Zr fuel cross section clad with HT-9. <i>Journal of Nuclear Materials</i> , 2017 , 494, 227-239	3.3	36
65	Metallography and fuel cladding chemical interaction in fast flux test facility irradiated metallic U-10Zr MFF-3 and MFF-5 fuel pins. <i>Journal of Nuclear Materials</i> , 2016 , 473, 167-177	3.3	24
64	The Role of Grain Size on Neutron Irradiation Response of Nanocrystalline Copper. <i>Materials</i> , 2016 , 9,	3.5	10
63	Fabrication and testing of U ²³⁵ Mo monolithic plate fuel with Zircaloy cladding. <i>Journal of Nuclear Materials</i> , 2016 , 479, 402-410	3.3	3
62	Performance of low smeared density sodium-cooled fast reactor metal fuel. <i>Journal of Nuclear Materials</i> , 2015 , 465, 464-470	3.3	9
61	Microstructure and mechanical behavior of neutron irradiated ultrafine grained ferritic steel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014 , 615, 128-138	5.3	22
60	Reduction of FCCI effects in lanthanide-iron diffusion couples by doping with palladium. <i>Journal of Nuclear Materials</i> , 2013 , 440, 178-192	3.3	27

59	Volatile species retention during metallic fuel casting. <i>Journal of Nuclear Materials</i> , 2013 , 441, 530-534	3.3	8
58	Microstructural characterization of high burn-up mixed oxide fast reactor fuel. <i>Journal of Nuclear Materials</i> , 2013 , 441, 267-273	3.3	23
57	Reducing fuel-cladding chemical interaction: The effect of palladium on the reactivity of neodymium on iron in diffusion couples. <i>Journal of Nuclear Materials</i> , 2013 , 432, 539-544	3.3	11
56	Full-length U-Pu-Zr (x = 0, 8, 19 wt.%) fast reactor fuel test in FFTF. <i>Journal of Nuclear Materials</i> , 2012 , 427, 46-57	3.3	20
55	Metallic Fuels: The EBR-II Legacy and Recent Advances. <i>Procedia Chemistry</i> , 2012 , 7, 513-520		23
54	Elemental Solubility Tendency for the Phases of Uranium by Classical Models Used to Predict Alloy Behavior 2012 , 357-370		1
53	Extending Sodium Fast Reactor Driver Fuel Use to Higher Temperatures. <i>Nuclear Technology</i> , 2011 , 173, 218-225	1.4	3
52	Lanthanides in metallic nuclear fuels: Their behavior and methods for their control. <i>Journal of Nuclear Materials</i> , 2011 , 419, 263-271	3.3	60
51	Fatigue crack analysis of EBR-II Ni-bonded duplex tubing. <i>Journal of Nuclear Materials</i> , 2011 , 410, 76-83	3.3	
50	Metallic fuels for advanced reactors. <i>Journal of Nuclear Materials</i> , 2009 , 392, 139-150	3.3	128
49	A US perspective on fast reactor fuel fabrication technology and experience. Part II: Ceramic fuels. <i>Journal of Nuclear Materials</i> , 2009 , 393, 1-11	3.3	21
48	A US perspective on fast reactor fuel fabrication technology and experience part I: metal fuels and assembly design. <i>Journal of Nuclear Materials</i> , 2009 , 389, 458-469	3.3	71
47	Metallic fast reactor fuel fabrication for the global nuclear energy partnership. <i>Journal of Nuclear Materials</i> , 2009 , 392, 158-163	3.3	26
46	EBR-II Superheater Duplex Tube Examination. <i>Nuclear Technology</i> , 2008 , 164, 465-473	1.4	1
45	The early characterization of irradiation effects in stainless steels at the Experimental Breeder Reactor-II. <i>Jom</i> , 2008 , 60, 34-37	2.1	
44	Fatigue testing of metallurgically-bonded EBR-II superheater tubes. <i>Journal of Nuclear Materials</i> , 2008 , 376, 38-46	3.3	2
43	Characterization of phases in δ -U from boiling-water reactors by transmission electron microscopy. <i>Journal of Nuclear Materials</i> , 2007 , 362, 104-115	3.3	11
42	Fuels for sodium-cooled fast reactors: US perspective. <i>Journal of Nuclear Materials</i> , 2007 , 371, 202-231	3.3	180

41	An approach to fuel development and qualification. <i>Journal of Nuclear Materials</i> , 2007 , 371, 232-242	3-3	30
40	Measurement of Helium Generation in AISI 304 Reflector and Blanket Assemblies after Long-term Irradiation in EBR-II. <i>Journal of ASTM International</i> , 2007 , 4, 100342		1
39	The effect of dose rate on the response of austenitic stainless steels to neutron radiation. <i>Journal of Nuclear Materials</i> , 2006 , 348, 148-164	3-3	40
38	Swelling and Mechanical Property Changes in Russian and American Austenitic Steels in EBR-II and BN350. <i>Nuclear Technology</i> , 2003 , 144, 369-378	1.4	3
37	Irradiation creep of annealed 304L stainless steel at low dose levels. <i>Journal of Nuclear Materials</i> , 2003 , 317, 167-174	3-3	12
36	Nuclear fuel considerations for the 21st century. <i>Progress in Nuclear Energy</i> , 2002 , 40, 513-521	2-3	17
35	The effects of long-time irradiation and thermal aging on 304 stainless steel. <i>Journal of Nuclear Materials</i> , 2000 , 282, 171-179	3-3	4
34	Soluble interleukin-2 receptor concentration as a biochemical indicator for acute graft-versus-host disease after allogeneic bone marrow transplantation. <i>Journal of Hematotherapy and Stem Cell Research</i> , 2000 , 9, 393-400		19
33	Relationship between in-reactor stress relaxation and irradiation creep. <i>Journal of Nuclear Materials</i> , 1998 , 252, 89-97	3-3	16
32	316 stainless steel cavity swelling in a PWR. <i>Journal of Nuclear Materials</i> , 1995 , 224, 207-215	3-3	24
31	Experience with advanced driver fuels in EBR-II. <i>Journal of Nuclear Materials</i> , 1993 , 204, 119-123	3-3	33
30	Irradiation behavior of metallic fast reactor fuels. <i>Journal of Nuclear Materials</i> , 1992 , 188, 3-9	3-3	55
29	Irradiation creep and swelling of annealed Type 304L stainless steel at ~ 390°C and high neutron fluence. <i>Journal of Nuclear Materials</i> , 1991 , 179-181, 581-584	3-3	33
28	Experimental studies of U-Pu-Zr fast reactor fuel pins in the experimental breeder reactor-II. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1990 , 21, 1863-1870		72
27	Fuel constituent redistribution during the early stages of U-Pu-Zr irradiation. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1990 , 21, 1871-1876		37
26	Swelling behavior of U-Pu-Zr fuel. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1990 , 21, 517-528		81
25	Irradiation creep and embrittlement behavior of AISI 316 stainless steel at very high neutron fluences. <i>Journal of Nuclear Materials</i> , 1988 , 159, 114-121	3-3	33
24	Irradiation creep and swelling of AISI 316 to exposures of 130 dpa at 385±00°C. <i>Journal of Nuclear Materials</i> , 1988 , 155-157, 1006-1013	3-3	43

23	New developments in irradiation-induced microstructural evolution of austenitic alloys and their consequences on mechanical properties. <i>Radiation Effects</i> , 1987 , 101, 37-53		15
22	A third stage of irradiation creep involving its cessation at high neutron exposures. <i>Journal of Nuclear Materials</i> , 1987 , 148, 279-287	3.3	27
21	Whole-core damage analysis of EBR-II driver fuel elements following SHRT program. <i>Nuclear Engineering and Design</i> , 1987 , 101, 67-74	1.8	12
20	Microstructural examination of fast-neutron irradiated Li ₂ O. <i>Journal of Nuclear Materials</i> , 1985 , 133-134, 209-215	3.3	4
19	Neutron irradiation and compatibility testing of Li ₂ O. <i>Journal of Nuclear Materials</i> , 1984 , 123, 929-933	3.3	7
18	Direct evidence for stress-enhanced swelling in type 316 stainless steel. <i>Journal of Nuclear Materials</i> , 1983 , 116, 272-276	3.3	22
17	Enhanced irradiation creep deformation due to gradual temperature reductions. <i>Journal of Nuclear Materials</i> , 1982 , 110, 95-107	3.3	1
16	Irradiation-induced microstructural changes in neutron-irradiated cold-worked and aged type 316 stainless steel. <i>Journal of Nuclear Materials</i> , 1980 , 92, 155-159	3.3	3
15	In-reactor precipitation and ferritic transformation in neutron-irradiated stainless steels. <i>Journal of Nuclear Materials</i> , 1979 , 83, 90-97	3.3	41
14	Microstructural Development in MgO-Partially Stabilized Zirconia (Mg-PSZ). <i>Journal of the American Ceramic Society</i> , 1979 , 62, 298-305	3.8	304
13	Transformation-toughening in partially-stabilized zirconia (PSZ). <i>Acta Metallurgica</i> , 1979 , 27, 1649-1654		168
12	Ferrite formation in neutron-irradiated type 304L stainless steel. <i>Journal of Nuclear Materials</i> , 1979 , 79, 406-411	3.3	48
11	THE FRACTURE TOUGHNESS OF CERAMICS 1978 , 529-556		23
10	Reply to Further Discussion of Precipitation in Partially Stabilized Zirconia□ <i>Journal of the American Ceramic Society</i> , 1977 , 60, 280-280	3.8	13
9	Mechanisms of Toughening Partially Stabilized Zirconia (PSZ). <i>Journal of the American Ceramic Society</i> , 1977 , 60, 183-184	3.8	355
8	Comments on Precipitation in Partially Stabilized Zirconia□ <i>Journal of the American Ceramic Society</i> , 1976 , 59, 179-179	3.8	6
7	Reply by. <i>Journal of the American Ceramic Society</i> , 1976 , 59, 179-182	3.8	5
6	Fuel Performance Design Basis for the Versatile Test Reactor. <i>Nuclear Science and Engineering</i> , 1-13	1.2	0

5	Interaction of Void-Induced Phase Instability and Subsequent Void Growth in AISI 304 Stainless Steel	884-884-10
4	History Dependence and Consequences of the Microchemical Evolution of AISI 316	295-295-15 3
3	Swelling of AISI Type 304L Stainless Steel in Response to Simultaneous Variations in Stress and Displacement Rate	212-212-9 3
2	Measurement of Helium Generation in AISI 304 Reflector and Blanket Assemblies after Long-term Irradiation in EBR-II	109-109-8 2
1	Metallic Fuel Performance Benchmarks for Versatile Test Reactor Applications. <i>Nuclear Science and Engineering</i> ,	1-25 1.2 1