

# Zhijie Jiao

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3854053/publications.pdf>

Version: 2024-02-01

65  
papers

2,665  
citations

159358

30  
h-index

182168

51  
g-index

70  
all docs

70  
docs citations

70  
times ranked

1499  
citing authors

#	ARTICLE	IF	CITATIONS
1	Synergies between H, He and radiation damage in dual and triple ion irradiation of candidate fusion blanket materials. <i>Journal of Nuclear Materials</i> , 2022, 565, 153722.	1.3	10
2	Solute segregation and precipitation across damage rates in dual-ion-irradiated T91 steel. <i>Journal of Nuclear Materials</i> , 2022, 563, 153626.	1.3	2
3	Combined effects of irradiation and hydrogen ions on surface oxidation of 308 L austenite stainless steel. <i>Corrosion Science</i> , 2021, 191, 109734.	3.0	6
4	Analytical bond-order potential for silver, palladium, ruthenium and iodine bulk diffusion in silicon carbide. <i>Journal of Physics Condensed Matter</i> , 2020, 32, 085702.	0.7	7
5	Corrosion of phase and phase boundary in proton-irradiated 308L stainless steel weld metal in simulated PWR primary water. <i>Corrosion Science</i> , 2020, 165, 108401.	3.0	23
6	Effect of post-irradiation annealing on microstructure and corrosion of proton-irradiated 308L stainless steel weld metal. <i>Corrosion Science</i> , 2020, 175, 108887.	3.0	11
7	Elucidating He-H assisted cavity evolution in alpha Cr under multiple ion beam irradiation. <i>Scripta Materialia</i> , 2020, 187, 291-295.	2.6	18
8	Emulation of fast reactor irradiated T91 using dual ion beam irradiation. <i>Journal of Nuclear Materials</i> , 2019, 527, 151831.	1.3	39
9	Reveal the fast and charge-insensitive lattice diffusion of silver in cubic silicon carbide via first-principles calculations. <i>Computational Materials Science</i> , 2019, 170, 109190.	1.4	6
10	Proton Irradiation Effects on Hardness and the Volta Potential of Welding 308L Duplex Stainless Steel. <i>Micromachines</i> , 2019, 10, 11.	1.4	7
11	Proton irradiation effects on the electron work function, corrosion and hardness of austenitic stainless steel phases. <i>Corrosion Science</i> , 2019, 157, 498-507.	3.0	11
12	Irradiation-induced precipitation and inverse coarsening of G-phase in austenitic stainless steel weld metal. <i>Materials Characterization</i> , 2019, 151, 396-403.	1.9	14
13	Irradiation-induced segregation at phase boundaries in austenitic stainless steel weld metal. <i>Scripta Materialia</i> , 2018, 149, 11-15.	2.6	18
14	Self-ion emulation of high dose neutron irradiated microstructure in stainless steels. <i>Journal of Nuclear Materials</i> , 2018, 501, 312-318.	1.3	22
15	Effect of post-irradiation annealing on the irradiated microstructure of neutron-irradiated 304L stainless steel. <i>Journal of Nuclear Materials</i> , 2018, 500, 220-234.	1.3	32
16	Microstructure evolution of T91 irradiated in the BOR60 fast reactor. <i>Journal of Nuclear Materials</i> , 2018, 504, 122-134.	1.3	47
17	Radiation-Induced Precipitates in a Self-ion Irradiated Cold-Worked 316 Austenitic Stainless Steel Used for PWR Baffle-Bolts. <i>Minerals, Metals and Materials Series</i> , 2018, , 565-580.	0.3	0
18	Ab initio study of the stability of intrinsic and extrinsic Ag point defects in 3C SiC. <i>Journal of Nuclear Materials</i> , 2018, 510, 596-602.	1.3	10

#	ARTICLE	IF	CITATIONS
19	The influence of carbon on cavity evolution in ion-irradiated ferritic-martensitic steels. Journal of Nuclear Materials, 2018, 509, 722-735.	1.3	20
20	The influence of helium on cavity evolution in ion-irradiated T91. Journal of Nuclear Materials, 2018, 509, 707-721.	1.3	27
21	Solute Clustering in As-irradiated and Post-irradiation-Annealed 304 Stainless Steel. Minerals, Metals and Materials Series, 2018, , 973-991.	0.3	0
22	IASCC Susceptibility of 304L Stainless Steel Irradiated in a BWR and Subjected to Post Irradiation Annealing. Minerals, Metals and Materials Series, 2018, , 1015-1026.	0.3	0
23	Nanoindentation and in situ microcompression in different dose regimes of proton beam irradiated 304 SS. Journal of Nuclear Materials, 2017, 486, 323-331.	1.3	49
24	Effect of irradiation on corrosion of 304 nuclear grade stainless steel in simulated PWR primary water. Corrosion Science, 2017, 127, 91-100.	3.0	65
25	Resolution of the carbon contamination problem in ion irradiation experiments. Nuclear Instruments & Methods in Physics Research B, 2017, 412, 58-65.	0.6	72
26	Multiple ion beam irradiation for the study of radiation damage in materials. Nuclear Instruments & Methods in Physics Research B, 2017, 412, 1-10.	0.6	39
27	The effects of proton irradiation on the microstructural and mechanical property evolution of inconel X-750 with high concentrations of helium. Journal of Nuclear Materials, 2017, 492, 213-226.	1.3	25
28	Methodology for determining void swelling at very high damage under ion irradiation. Journal of Nuclear Materials, 2016, 477, 273-279.	1.3	19
29	Elastic strain energy control of the precipitate free zone around primary carbides in nickel base alloy 725. Acta Materialia, 2016, 120, 138-149.	3.8	12
30	Void swelling and microstructure evolution at very high damage level in self-ion irradiated ferritic-martensitic steels. Journal of Nuclear Materials, 2016, 480, 159-176.	1.3	77
31	Characterization of microstructure and property evolution in advanced cladding and duct: Materials exposed to high dose and elevated temperature. Journal of Materials Research, 2015, 30, 1246-1274.	1.2	36
32	Effect of irradiation mode on the microstructure of self-ion irradiated ferritic-martensitic alloys. Journal of Nuclear Materials, 2015, 465, 116-126.	1.3	70
33	Void swelling in high dose ion-irradiated reduced activation ferritic-martensitic steels. Journal of Nuclear Materials, 2015, 462, 119-125.	1.3	47
34	Effect of pre-implanted helium on void swelling evolution in self-ion irradiated HT9. Journal of Nuclear Materials, 2015, 462, 458-469.	1.3	77
35	Characterization of ion beam irradiated 304 stainless steel utilizing nanoindentation and Laue microdiffraction. Journal of Nuclear Materials, 2015, 458, 70-76.	1.3	61
36	A facility for studying irradiation accelerated corrosion in high temperature water. Journal of Nuclear Materials, 2014, 451, 40-47.	1.3	29

#	ARTICLE	IF	CITATIONS
37	The behavior of vacancy-type dislocation loops under electron irradiation in iron. Journal of Nuclear Materials, 2014, 455, 253-257.	1.3	18
38	Emulation of reactor irradiation damage using ion beams. Scripta Materialia, 2014, 88, 33-36.	2.6	229
39	Aspects of ion irradiations to study localized deformation in austenitic stainless steels. Journal of Nuclear Materials, 2014, 452, 328-334.	1.3	27
40	Precipitate behavior in self-ion irradiated stainless steels at high doses. Journal of Nuclear Materials, 2014, 449, 200-206.	1.3	28
41	Superior corrosion resistance properties of TiN-based coatings on Zircaloy tubes in supercritical water. Journal of Nuclear Materials, 2014, 451, 346-351.	1.3	71
42	Microstructural evolution in proton irradiated NF616 at 773K to 3dpa. Journal of Nuclear Materials, 2013, 442, S800-S804.	1.3	7
43	Microstructural Evolution of Self-Ion Irradiation HT9. , 2013, , .		0
44	Application of the inverse Kirkendall model of radiation-induced segregation to ferriticâ€“martensitic alloys. Journal of Nuclear Materials, 2012, 425, 117-124.	1.3	43
45	Precipitate evolution in ion-irradiated HCM12A. Journal of Nuclear Materials, 2012, 425, 105-111.	1.3	40
46	Role of Localized Deformation in Irradiation-Assisted Stress Corrosion Cracking Initiation. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 136-146.	1.1	39
47	Radiation-induced segregation and phase stability in ferriticâ€“martensitic alloy T 91. Journal of Nuclear Materials, 2011, 417, 140-144.	1.3	58
48	Phase stability in proton and heavy ion irradiated ferriticâ€“martensitic alloys. Journal of Nuclear Materials, 2011, 419, 52-62.	1.3	63
49	Strain-induced precipitate dissolution in an irradiated austenitic alloy. Scripta Materialia, 2011, 65, 159-162.	2.6	14
50	Novel features of radiation-induced segregation and radiation-induced precipitation in austenitic stainless steels. Acta Materialia, 2011, 59, 1220-1238.	3.8	162
51	Segregation behavior in proton- and heavy-ion-irradiated ferriticâ€“martensitic alloys. Acta Materialia, 2011, 59, 4467-4481.	3.8	72
52	Impact of localized deformation on IASCC in austenitic stainless steels. Journal of Nuclear Materials, 2011, 408, 246-256.	1.3	102
53	The role of irradiated microstructure in the localized deformation of austenitic stainless steels. Journal of Nuclear Materials, 2010, 407, 34-43.	1.3	81
54	Irradiation-assisted stress corrosion cracking of austenitic alloys in supercritical water. Journal of Nuclear Materials, 2009, 395, 11-22.	1.3	44

#	ARTICLE	IF	CITATIONS
55	Atom Probe Tomography of Radiation-Induced Precipitation in Ferritic-Martensitic Alloy HCM12A. <i>Microscopy and Microanalysis</i> , 2009, 15, 1374-1375.	0.2	0
56	Localized deformation and IASCC initiation in austenitic stainless steels. <i>Journal of Nuclear Materials</i> , 2008, 382, 203-209.	1.3	81
57	Microstructure of helium-implanted and proton-irradiated T91 ferritic/martensitic steel. <i>Journal of Nuclear Materials</i> , 2007, 367-370, 440-445.	1.3	25
58	Effect of irradiation on stress corrosion cracking in supercritical water. <i>Journal of Nuclear Materials</i> , 2007, 371, 107-117.	1.3	48
59	Deformation microstructure of proton-irradiated stainless steels. <i>Journal of Nuclear Materials</i> , 2007, 361, 218-227.	1.3	72
60	Microstructural evolution of proton irradiated T91. <i>Journal of Nuclear Materials</i> , 2006, 351, 162-173.	1.3	134
61	Corrosion of Austenitic Alloys in Supercritical Water. <i>Corrosion</i> , 2006, 62, 989-1005.	0.5	101
62	Stability of ordinary dislocations on cross-slip planes in $\beta$ -TiAl. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2002, 329-331, 171-176.	2.6	14
63	Stability and cross-slip of [01] superdislocations in $\beta$ -TiAl. <i>Intermetallics</i> , 2001, 9, 891-898.	1.8	6
64	Grain growth kinetics in nanostructured nickel. <i>Scripta Materialia</i> , 1999, 11, 1343-1349.	0.5	72
65	Contribution of Localized Deformation to IGSCC and IASCC in Austenitic Stainless Steels. , 0, , 677-678.		2