Jonathan Hyde

List of Publications by Year
in descending order

64	2,125	236612	233125
papers	citations	25 h-index	45 g-index

65	65	65	1237
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Applications of atom-probe tomography to the characterisation of solute behaviours. Materials Science and Engineering Reports, 2010, 69, 37-62.	14.8	227
2	Spinodal decomposition in Fe-Cr alloys: Experimental study at the atomic level and comparison with computer modelsâ€"I. Introduction and methodology. Acta Metallurgica Et Materialia, 1995, 43, 3385-3401.	1.9	198
3	A sensitivity analysis of the maximum separation method for the characterisation of solute clusters. Ultramicroscopy, 2011, 111, 440-447.	0.8	153
4	Microstructural characterization of irradiation-induced Cu-enriched clusters in reactor pressure vessel steels. Journal of Nuclear Materials, 2001, 298, 211-224.	1.3	110
5	Nuclear reactor materials at the atomic scale. Materials Today, 2009, 12, 30-37.	8.3	98
6	Spinodal decomposition in Fe-Cr alloys: Experimental study at the atomic level and comparison with computer modelsâ€"II. Development of domain size and composition amplitude. Acta Metallurgica Et Materialia, 1995, 43, 3403-3413.	1.9	85
7	Spinodal decomposition in Fe-Cr alloys: Experimental study at the atomic level and comparison with computer modelsâ€"III. Development of morphology. Acta Metallurgica Et Materialia, 1995, 43, 3415-3426.	1.9	70
8	Precipitation in long term thermally aged high copper, high nickel model RPV steel welds. Progress in Nuclear Energy, 2012, 57, 86-92.	1.3	68
9	Post-irradiation annealing of Niâ€“Mnâ€“Si-enriched clusters in a neutron-irradiated RPV steel weld using Atom Probe Tomography. Journal of Nuclear Materials, 2015, 459, 127-134.	1.3	65
10	Microstructural evolution in medium copper low alloy steels irradiated in a pressurized water reactor and a material test reactor. Journal of Nuclear Materials, 2003, 312, 163-173.	1.3	62
11	An Analysis of the Structure of Irradiation induced Cu-enriched Clusters in Low and High Nickel Welds. Materials Research Society Symposia Proceedings, 2000, 650, 661.	0.1	56
12	Improvements in three-dimensional atom probe design. Applied Surface Science, 1994, 76-77, 374-381.	3.1	53
13	A comparison of the structure of solute clusters formed during thermal ageing and irradiation. Ultramicroscopy, 2011, 111, 664-671.	0.8	48
14	Lateral and depth scale calibration of the position sensitive atom probe. Applied Surface Science, 1994, 76-77, 382-391.	3.1	42
15	Analysis of Radiation Damage in Light Water Reactors: Comparison of Cluster Analysis Methods for the Analysis of Atom Probe Data. Microscopy and Microanalysis, 2017, 23, 366-375.	0.2	40
16	Measurement of the amplitude of a spinodal. Surface Science, 1991, 246, 304-314.	0.8	39
17	Atom probe tomography of reactor pressure vessel steels: An analysis of data integrity. Ultramicroscopy, 2011, 111, 676-682.	0.8	38
18	Comparison of low temperature decomposition in Feî—¸Cr and duplex stainless steels. Applied Surface Science, 1995, 87-88, 323-328.	3.1	37

#	Article	IF	Citations
19	Statistical analysis of atom probe data: Detecting the early stages of solute clustering and/or co-segregation. Ultramicroscopy, 2009, 109, 502-509.	0.8	37
20	Quantitative methods for the APT analysis of thermally aged RPV steels. Ultramicroscopy, 2013, 132, 258-264.	0.8	36
21	Effects of heavy-ion irradiation on solute segregation to dislocations in oxide-dispersion-strengthened Eurofer 97 steel. Journal of Nuclear Materials, 2011, 412, 100-105.	1.3	35
22	A model of irradiation damage in high nickel submerged arc welds. International Journal of Pressure Vessels and Piping, 2002, 79, 649-660.	1.2	29
23	Characterisation of interfacial segregation to Cu-enriched precipitates in two thermally aged reactor pressure vessel steel welds. Ultramicroscopy, 2015, 159, 292-298.	0.8	28
24	The measurement of stress and phase fraction distributions in pre and post-transition Zircaloy oxides using nano-beam synchrotron X-ray diffraction. Journal of Nuclear Materials, 2016, 479, 559-575.	1.3	28
25	Three-dimensional characterization and modelling of spinodally decomposed iron-chromium alloys. Surface Science, 1992, 266, 370-377.	0.8	26
26	A study of the effect of ageing temperature on phase separation in Feî—¸45%Cr alloys. Applied Surface Science, 1995, 87-88, 311-317.	3.1	24
27	A topological approach to materials characterisation. Scripta Metallurgica Et Materialia, 1991, 25, 1435-1440.	1.0	23
28	Visualisation of three-dimensional microstructures. Surface Science, 1992, 266, 471-480.	0.8	23
29	Detecting Clusters in Atom Probe Data with Gaussian Mixture Models. Microscopy and Microanalysis, 2017, 23, 269-278.	0.2	23
30	A critical comparison between experimental results and numerical simulations of phase separation in the Fe-Cr system. Applied Surface Science, 1994, 76-77, 233-241.	3.1	22
31	The association of hydrogen with nanometre bubbles of helium implanted into zirconium. Scripta Materialia, 2018, 152, 102-106.	2.6	22
32	Atom probe analysis and modelling of interfaces in magnetic multilayers. Ultramicroscopy, 1992, 47, 367-374.	0.8	20
33	Uncertainties and assumptions associated with APT and SANS characterisation of irradiation damage in RPV steels. Journal of Nuclear Materials, 2014, 449, 308-314.	1.3	19
34	The dominant mechanisms for the formation of solute-rich clusters in low-Cu steels under irradiation. Materials Today Energy, 2020, 17, 100472.	2.5	19
35	New dimensions in atom-probe analysis. Surface Science, 1992, 266, 481-493.	0.8	18
36	Modelling spinodal decomposition at the atomic scale: beyond the Cahn - Hilliard model. Modelling and Simulation in Materials Science and Engineering, 1996, 4, 33-54.	0.8	18

#	Article	IF	Citations
37	Position sensitive atom probe study of the decomposition of a Cu-2.6at%Co alloy. Applied Surface Science, 1993, 67, 368-379.	3.1	16
38	The effect of Ni on the microstructural evolution of high Cu reactor pressure vessel steel welds after thermal ageing for up to 100,000â€‾h. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 736, 111-119.	2.6	16
39	Atomic-scale characterisation of precipitation in copper-cobalt alloys. Applied Surface Science, 1994, 76-77, 203-212.	3.1	14
40	Secondary precipitation within the cementite phase of reactor pressure vessel steels. Scripta Materialia, 2016, 115, 118-122.	2.6	14
41	The effect of composition variations on the response of steels subjected to high fluence neutron irradiation. Materialia, 2020, 11, 100717.	1.3	14
42	Studies of radiation embrittlement of model alloys by positron annihilation, thermo-electric and magnetic measurements. NDT and E International, 2004, 37, 19-22.	1.7	11
43	Characterisation of the early stages of solute clustering in 1Niâ€“1.3Mn welds containing Cu. Ultramicroscopy, 2009, 109, 510-517.	0.8	11
44	Temper Embrittlement, Irradiation Induced Phosphorus Segregation and Implications for Post-Irradiation Annealing of Reactor Pressure Vessels. , 1999, , 296-316.		10
45	APT and TEM study of behaviour of alloying elements in neutron-irradiated zirconium-based alloys. Scripta Materialia, 2022, 208, 114323.	2.6	9
46	Estimation of composition amplitude: Pa and LBM versus V. Surface Science, 1992, 266, 446-452.	0.8	8
47	Data analysis in the optical PoSAP. Applied Surface Science, 1996, 94-95, 457-463.	3.1	7
48	Using alpha hulls to automatically and reproducibly detect edge clusters in atom probe tomography datasets. Materials Characterization, 2020, 160, 110078.	1.9	7
49	A more holistic characterisation of internal interfaces in a variety of materials via complementary use of transmission Kikuchi diffraction and Atom probe tomography. Applied Surface Science, 2020, 528, 147011.	3.1	7
50	Observation of Mn-Ni-Si-rich features in thermally-aged model reactor pressure vessel steels. Scripta Materialia, 2021, 191, 126-130.	2.6	7
51	Comparison of models for deconvoluting the compositions of coexisting phases. Applied Surface Science, 1993, 67, 429-435.	3.1	6
52	Structural analysis with the position sensitive atom probe. Surface Science, 1992, 266, 463-470.	0.8	5
53	Radiation Embrittlement of Reactor Pressure Vessel Steels. , 2003, , 351-398.		4
54	Microstructural Aspects of Irradiation Damage in A508 Gr 4N Forging Steel: Composition and Flux Effects. , 2004, , 194-207.		4

#	Article	IF	Citations
55	Analysis of data from an optical atom probe. Applied Surface Science, 1994, 76-77, 409-415.	3.1	3
56	SANS examination of irradiated RPV steel welds during in-situ annealing. Journal of Nuclear Materials, 2015, 461, 45-50.	1.3	3
57	Ultra-high-resolution chemical analysis by field-ion microscopy, atom probe and position-sensitive atom-probe techniques. Ultramicroscopy, 1992, 47, 199-211.	0.8	2
58	Simulation of the early stages of ordering in Ti-15at.% Al alloy. Philosophical Magazine Letters, 1995, 71, 247-255.	0.5	2
59	Dynamical Ising Model Simulations of Nucleation and Growth in Copper-Cobalt Alloys. Materials Research Society Symposia Proceedings, 1992, 291, 623.	0.1	1
60	Microstructural characterisation techniques for the study of reactor pressure vessel (RPV) embrittlement. , 2015, , 211-294.		1
61	Research Tools: Microstructure, Mechanical Properties, and Computational Thermodynamics. , 2019, , 103-161.		1
62	Early Stages of Solute Clustering in Irradiated 1 Ni â€“ 1.3 Mn Welds. Microscopy and Microanalysis, 2009, 15, 1352-1353.	0.2	0
63	A sensitivity study using maximum entropy to interpret SANS data from the Ringhals Unit 3 NPP. Journal of Nuclear Materials, 2018, 509, 417-424.	1.3	0
64	PosgenPy: An Automated and Reproducible Approach to Assessing the Validity of Cluster Search Parameters in Atom Probe Tomography Datasets. Microscopy and Microanalysis, 0, , 1-10.	0.2	0