

Paul A J Bagot

List of Publications by Year in descending order

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108
papers

4,632
citations

126907

33
h-index

114465

63
g-index

109
all docs

109
docs citations

109
times ranked

5150
citing authors

#	ARTICLE	IF	CITATIONS
1	Atom Probe Tomography of a Cu-Doped TiNiSn Thermoelectric Material: Nanoscale Structure and Optimization of Analysis Conditions. <i>Microscopy and Microanalysis</i> , 2022, 28, 1340-1347.	0.4	3
2	A new class of alumina-forming superalloy for 3D printing. <i>Additive Manufacturing</i> , 2022, 52, 102608.	3.0	5
3	Interaction of transmutation products with precipitates, dislocations and grain boundaries in neutron irradiated W. <i>Materialia</i> , 2022, 22, 101370.	2.7	17
4	Quantifying the effect of oxygen on micro-mechanical properties of a near-alpha titanium alloy. <i>Journal of Materials Research</i> , 2021, 36, 2529-2544.	2.6	15
5	Developing Atom Probe Tomography of Phyllosilicates in Preparation for Extra-Terrestrial Sample Return. <i>Geostandards and Geoanalytical Research</i> , 2021, 45, 427-441.	3.1	5
6	Structural and compositional analysis of (InGa)(AsSb)/GaAs/GaP Stranski-Krastanov quantum dots. <i>Light: Science and Applications</i> , 2021, 10, 125.	16.6	14
7	Xenon plasma focussed ion beam preparation of an Al-6XXX alloy sample for atom probe tomography including analysis of an $\text{Al}(\text{Fe},\text{Mn})\text{Si}$ dispersoid. <i>Materials Characterization</i> , 2021, 178, 111194.	4.4	10
8	The Kinetics of Primary Alpha Plate Growth in Titanium Alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2020, 51, 131-141.	2.2	14
9	The effect of hydrogen on the early stages of oxidation of a magnesium alloy. <i>Corrosion Science</i> , 2020, 165, 108391.	6.6	8
10	Using alpha hulls to automatically and reproducibly detect edge clusters in atom probe tomography datasets. <i>Materials Characterization</i> , 2020, 160, 110078.	4.4	7
11	Impurity and texture driven HCP-to-FCC transformations in Ti-X thin films during in situ TEM annealing and FIB milling. <i>Acta Materialia</i> , 2020, 184, 199-210.	7.9	31
12	New frontiers in atom probe tomography: a review of research enabled by cryo and/or vacuum transfer systems. <i>Materials Today Advances</i> , 2020, 7, 100090.	5.2	34
13	The Effects of Chemistry Variations in New Nickel-Based Superalloys for Industrial Gas Turbine Applications. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2020, 51, 4902-4921.	2.2	15
14	A study of the interaction of oxygen with the β phase in the model alloy Ti-7wt%Al. <i>Scripta Materialia</i> , 2020, 185, 111-116.	5.2	13
15	New insights into the oxidation mechanisms of a Ferritic-Martensitic steel in high-temperature steam. <i>Acta Materialia</i> , 2020, 194, 522-539.	7.9	46
16	The effect of composition variations on the response of steels subjected to high fluence neutron irradiation. <i>Materialia</i> , 2020, 11, 100717.	2.7	14
17	Reflections on the Analysis of Interfaces and Grain Boundaries by Atom Probe Tomography. <i>Microscopy and Microanalysis</i> , 2020, 26, 247-257.	0.4	30
18	Element segregation and β formation in primary β of a near- β Ti-alloy. <i>Materials Characterization</i> , 2020, 164, 110327.	4.4	24

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19	Combined APT, TEM and SAXS Characterisation of Nanometre-Scale Precipitates in Titanium Alloys. <i>Microscopy and Microanalysis</i> , 2019, 25, 2516-2517.	0.4	1
20	Atom Probe Tomography of Au-Cu Bimetallic Nanoparticles Synthesized by Inert Gas Condensation. <i>Journal of Physical Chemistry C</i> , 2019, 123, 26481-26489.	3.1	7
21	Novel Synthesis and Multi-technique Characterisation of Au-Cu Nanoparticles. <i>Microscopy and Microanalysis</i> , 2019, 25, 2526-2527.	0.4	0
22	Observing hydrogen in steel using cryogenic atom probe tomography: A simplified approach. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 32280-32291.	7.1	25
23	Radiation-induced segregation in W-Re: from kinetic Monte Carlo simulations to atom probe tomography experiments. <i>European Physical Journal B</i> , 2019, 92, 1.	1.5	15
24	Decoration of voids with rhenium and osmium transmutation products in neutron irradiated single crystal tungsten. <i>Scripta Materialia</i> , 2019, 173, 96-100.	5.2	41
25	Insight into the impact of atomic- and nano-scale indium distributions on the optical properties of InGaN/GaN quantum well structures grown on m-plane freestanding GaN substrates. <i>Journal of Applied Physics</i> , 2019, 125, 225704.	2.5	5
26	An in-situ approach for preparing atom probe tomography specimens by xenon plasma-focussed ion beam. <i>Ultramicroscopy</i> , 2019, 202, 121-127.	1.9	29
27	A Gas-Phase Reaction Cell for Modern Atom Probe Systems. <i>Microscopy and Microanalysis</i> , 2019, 25, 410-417.	0.4	10
28	Effect of Nb and Fe on damage evolution in a Zr-alloy during proton and neutron irradiation. <i>Acta Materialia</i> , 2019, 165, 603-614.	7.9	44
29	Bimetallic Fe-Ni/SiO ₂ catalysts for furfural hydrogenation: Identification of the interplay between Fe and Ni during deposition-precipitation and thermal treatments. <i>Catalysis Today</i> , 2019, 334, 162-172.	4.4	46
30	Impact of local electrostatic field rearrangement on field ionization. <i>Journal Physics D: Applied Physics</i> , 2018, 51, 105601.	2.8	20
31	The effect of oxidation on the subsurface microstructure of a Ti-6Al-4V alloy. <i>Scripta Materialia</i> , 2018, 148, 24-28.	5.2	33
32	The effect of phase chemistry on the extent of strengthening mechanisms in model Ni-Cr-Al-Ti-Mo based superalloys. <i>Acta Materialia</i> , 2018, 153, 290-302.	7.9	60
33	A novel ultra-high strength maraging steel with balanced ductility and creep resistance achieved by nanoscale δ -NiAl and Laves phase precipitates. <i>Acta Materialia</i> , 2018, 149, 285-301.	7.9	135
34	Characterization of Phase Chemistry and Partitioning in a Family of High-Strength Nickel-Based Superalloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018, 49, 2302-2310.	2.2	22
35	Characterizing solute hydrogen and hydrides in pure and alloyed titanium at the atomic scale. <i>Acta Materialia</i> , 2018, 150, 273-280.	7.9	81
36	Gamma Prime Precipitate Evolution During Aging of a Model Nickel-Based Superalloy. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018, 49, 718-728.	2.2	56

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37	Nanomagnetic properties of the meteorite cloudy zone. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E11436-E11445.	7.1	36
38	Characterizing nanoscale precipitation in a titanium alloy by laser-assisted atom probe tomography. Materials Characterization, 2018, 141, 129-138.	4.4	17
39	Atom probe tomography analysis of the reference zircon gl-1: An interlaboratory study. Chemical Geology, 2018, 495, 27-35.	3.3	27
40	Extending continuum models for atom probe simulation. Materials Characterization, 2018, 146, 299-306.	4.4	9
41	On the Effect of Environmental Exposure on Dwell Fatigue Performance of a Fine-Grained Nickel-Based Superalloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 3908-3922.	2.2	13
42	In-Service Oxidation and Microstructural Evolution of a Nickel Superalloy in a Formula 1 Car Exhaust. Oxidation of Metals, 2018, 89, 375-394.	2.1	8
43	Understanding irradiation-induced nanoprecipitation in zirconium alloys using parallel TEM and APT. Journal of Nuclear Materials, 2018, 510, 460-471.	2.7	17
44	The atomic structure of polar and non-polar InGaN quantum wells and the green gap problem. Ultramicroscopy, 2017, 176, 93-98.	1.9	24
45	Nanoscale Stoichiometric Analysis of a High-Temperature Superconductor by Atom Probe Tomography. Microscopy and Microanalysis, 2017, 23, 414-424.	0.4	18
46	Atom Probe Analysis of <i>Ex Situ</i> Gas-Charged Stable Hydrides. Microscopy and Microanalysis, 2017, 23, 307-313.	0.4	6
47	Validity of Vegard's rule for Al _{1-x} In _x N (0.08 ≤ x ≤ 0.28) thin films grown on GaN templates. Physics D: Applied Physics, 2017, 50, 205107.	2.8	10
48	Comparing the Consistency of Atom Probe Tomography Measurements of Small-Scale Segregation and Clustering Between the LEAP 3000 and LEAP 5000 Instruments. Microscopy and Microanalysis, 2017, 23, 227-237.	0.4	18
49	On the microtwinning mechanism in a single crystal superalloy. Acta Materialia, 2017, 135, 314-329.	7.9	102
50	Automated Atom-By-Atom Three-Dimensional (3D) Reconstruction of Field Ion Microscopy Data. Microscopy and Microanalysis, 2017, 23, 255-268.	0.4	16
51	Direct observation of individual hydrogen atoms at trapping sites in a ferritic steel. Science, 2017, 355, 1196-1199.	12.6	224
52	An Atom Probe Tomography study of site preference and partitioning in a nickel-based superalloy. Acta Materialia, 2017, 125, 156-165.	7.9	113
53	Sequential nucleation of phases in a 17-4PH steel: Microstructural characterisation and mechanical properties. Acta Materialia, 2017, 125, 38-49.	7.9	121
54	A SANS and APT study of precipitate evolution and strengthening in a maraging steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 702, 414-424.	5.6	31

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55	Ion-irradiation induced clustering in W-Re-Ta, W-Re and W-Ta alloys: An atom probe tomography and nanoindentation study. <i>Acta Materialia</i> , 2017, 124, 71-78.	7.9	107
56	The effect of boron on oxide scale formation in a new polycrystalline superalloy. <i>Scripta Materialia</i> , 2017, 127, 156-159.	5.2	19
57	Application of Atom Probe Tomography to Nitride Semiconductors. <i>Microscopy and Microanalysis</i> , 2017, 23, 666-667.	0.4	0
58	Insights into microstructural interfaces in aerospace alloys characterised by atom probe tomography. <i>Materials Science and Technology</i> , 2016, 32, 232-241.	1.6	20
59	Effect of the milling atmosphere on the microstructure and mechanical properties of a ODS Fe-14Cr model alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 671, 264-274.	5.6	15
60	The microstructure of non-polar a-plane (112 $\bar{0}$) InGaN quantum wells. <i>Journal of Applied Physics</i> , 2016, 119, .	2.5	22
61	Advances in atom probe tomography instrumentation: Implications for materials research. <i>MRS Bulletin</i> , 2016, 41, 40-45.	3.5	28
62	The formation of ordered clusters in Ti ϵ -7Al and Ti ϵ -6Al ϵ -4V. <i>Acta Materialia</i> , 2016, 112, 141-149.	7.9	44
63	Characterization of Ordering in A-Site Deficient Perovskite Ca _{1-x} La _{2x/3} TiO ₃ Using STEM/EELS. <i>Inorganic Chemistry</i> , 2016, 55, 9937-9948.	4.0	12
64	Isothermal omega formation and evolution in the Beta-Ti alloy Ti-5Al-5Mo-5V-3Cr. <i>Philosophical Magazine Letters</i> , 2016, 96, 416-424.	1.2	15
65	Atomic-scale Studies of Uranium Oxidation and Corrosion by Water Vapour. <i>Scientific Reports</i> , 2016, 6, 25618.	3.3	28
66	Atom-Probe Tomography: Detection Efficiency and Resolution of Nanometer-Scale Precipitates in a Ti-5553 Alloy. <i>Microscopy and Microanalysis</i> , 2016, 22, 702-703.	0.4	1
67	Continuous and discontinuous precipitation in Fe-1 at.%Cr-1 at.%Mo alloy upon nitriding; crystal structure and composition of ternary nitrides. <i>Philosophical Magazine</i> , 2016, 96, 1509-1537.	1.6	18
68	Precipitation of the ordered $\hat{1}\pm 2$ phase in a near- $\hat{1}\pm$ titanium alloy. <i>Scripta Materialia</i> , 2016, 117, 81-85.	5.2	40
69	On the effect of boron on grain boundary character in a new polycrystalline superalloy. <i>Acta Materialia</i> , 2016, 103, 688-699.	7.9	149
70	Oxidation behaviour of a next generation polycrystalline Mn containing Ni-based superalloy. <i>Scripta Materialia</i> , 2016, 113, 51-54.	5.2	33
71	Practical Issues for Atom Probe Tomography Analysis of III-Nitride Semiconductor Materials. <i>Microscopy and Microanalysis</i> , 2015, 21, 544-556.	0.4	25
72	Structural, electronic, and optical properties of m -plane InGaN/GaN quantum wells: Insights from experiment and atomistic theory. <i>Physical Review B</i> , 2015, 92, .	3.2	57

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73	A combined approach for deposition and characterization of atomically engineered catalyst nanoparticles. <i>Journal of Lithic Studies</i> , 2015, 1, 125-131.	0.5	12
74	Ion-irradiation-induced clustering in Wâ€“Re and Wâ€“Reâ€“Os alloys: A comparative study using atom probe tomography and nanoindentation measurements. <i>Acta Materialia</i> , 2015, 87, 121-127.	7.9	111
75	Thermalâ€“mechanical fatigue behaviour of a new single crystal superalloy: Effects of Si and Re alloying. <i>Acta Materialia</i> , 2015, 95, 456-467.	7.9	38
76	Mining information from atom probe data. <i>Ultramicroscopy</i> , 2015, 159, 324-337.	1.9	50
77	Precipitation processes in the Beta-Titanium alloy Tiâ€“5Alâ€“5Moâ€“5Vâ€“3Cr. <i>Journal of Alloys and Compounds</i> , 2015, 646, 946-953.	5.5	54
78	Imaging of radiation damage using complementary field ion microscopy and atom probe tomography. <i>Ultramicroscopy</i> , 2015, 159, 387-394.	1.9	18
79	Indium clustering in <i>c</i> -plane InGaN quantum wells as evidenced by atom probe tomography. <i>Applied Physics Letters</i> , 2015, 106, .	3.3	46
80	A New Polycrystalline Co-Ni Superalloy. <i>Jom</i> , 2014, 66, 2495-2501.	1.9	59
81	An integrated high temperature environmental cell for atom probe tomography studies of gas-surface reactions: Instrumentation and results. <i>Ultramicroscopy</i> , 2014, 141, 16-21.	1.9	16
82	In-service materials support for safety critical applications â€“ A case study of a high strength Ti-alloy using advanced experimental and modelling techniques. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 599, 166-173.	5.6	27
83	Atomic Imaging of Carbon-Supported Pt, Pt/Co, and Ir@Pt Nanocatalysts by Atom-Probe Tomography. <i>ACS Catalysis</i> , 2014, 4, 695-702.	11.2	50
84	Oxidation and Surface Segregation Behavior of a Ptâ€“Pdâ€“Rh Alloy Catalyst. <i>Journal of Physical Chemistry C</i> , 2014, 118, 26130-26138.	3.1	26
85	Solute redistribution in the nanocrystalline structure formed in bearing steels. <i>Scripta Materialia</i> , 2013, 69, 630-633.	5.2	62
86	Atomic engineering of platinum alloy surfaces. <i>Ultramicroscopy</i> , 2013, 132, 205-211.	1.9	16
87	Characterization of Oxidation and Reduction of a Palladiumâ€“Rhodium Alloy by Atom-Probe Tomography. <i>Journal of Physical Chemistry C</i> , 2012, 116, 4760-4766.	3.1	28
88	Characterization of Oxidation and Reduction of Ptâ€“Ru and Ptâ€“Rhâ€“Ru Alloys by Atom Probe Tomography and Comparison with Ptâ€“Rh. <i>Journal of Physical Chemistry C</i> , 2012, 116, 17633-17640.	3.1	38
89	Collision dynamics and reactive uptake of OH radicals at liquid surfaces of atmospheric interest. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 8457.	2.8	37
90	Reactive Scattering as a Chemically Specific Analytical Probe of Liquid Surfaces. <i>Journal of Physical Chemistry Letters</i> , 2011, 2, 12-18.	4.6	25

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91	Hydrogen production from formic acid decomposition at room temperature using a Ag@Pd core-shell nanocatalyst. <i>Nature Nanotechnology</i> , 2011, 6, 302-307.	31.5	1,028
92	Characterization of oxidation and reduction of a platinum-rhodium alloy by atom-probe tomography. <i>Catalysis Today</i> , 2011, 175, 552-557.	4.4	41
93	A model for oxidation-driven surface segregation and transport on Pt-alloys studied by atom probe tomography. <i>Surface Science</i> , 2011, 605, 1544-1549.	1.9	12
94	O(³ P) Atoms as a Probe of Surface Ordering in 1-Alkyl-3-methylimidazolium-Based Ionic Liquids. <i>Journal of Physical Chemistry Letters</i> , 2010, 1, 429-433.	4.6	36
95	O(³ P) Atoms as a Chemical Probe of Surface Ordering in Ionic Liquids. <i>Journal of Physical Chemistry A</i> , 2010, 114, 4896-4904.	2.5	45
96	How Penetrable Are Thioalkyl Self-Assembled Monolayers?. <i>Journal of Physical Chemistry Letters</i> , 2010, 1, 1917-1921.	4.6	29
97	Dynamics of the Reaction of O(³ P) Atoms with Alkylthiol Self-assembled Monolayers. <i>Journal of Physical Chemistry A</i> , 2009, 113, 4320-4329.	2.5	27
98	3D atom probe study of gaseous adsorption on alloy catalyst surfaces III: Ternary alloys @ NO on Pt@Rh@Ru and Pt@Rh@Ir. <i>Surface Science</i> , 2008, 602, 1381-1391.	1.9	31
99	Influence of Molecular and Supramolecular Structure on the Gas-Liquid Interfacial Reactivity of Hydrocarbon Liquids with O(³ P) Atoms. <i>Journal of Physical Chemistry C</i> , 2008, 112, 1524-1532.	3.1	27
100	Dynamics of Inelastic Scattering of OH Radicals from Reactive and Inert Liquid Surfaces. <i>Journal of Physical Chemistry C</i> , 2008, 112, 10868-10877.	3.1	74
101	Dynamics of interfacial reactions between O(³ P) atoms and long-chain liquid hydrocarbons. <i>Physica Scripta</i> , 2007, 76, C42-C47.	2.5	23
102	3D atom probe study of gas adsorption and reaction on alloy catalyst surfaces II: Results on Pt and Pt@Rh. <i>Surface Science</i> , 2007, 601, 2245-2255.	1.9	39
103	Temperature Dependence of OH Yield, Translational Energy, and Vibrational Branching in the Reaction of O(³ P)(g) with Liquid Squalane. <i>Journal of Physical Chemistry C</i> , 2007, 111, 14833-14842.	3.1	34
104	Automobile exhaust catalysis at the atomic scale: atom-probe investigations on platinum alloys. <i>Surface and Interface Analysis</i> , 2007, 39, 172-177.	1.8	18
105	3D atom probe study of gas adsorption and reaction on alloy catalyst surfaces I: Instrumentation. <i>Surface Science</i> , 2006, 600, 3028-3035.	1.9	51
106	Fundamental surface science studies of automobile exhaust catalysis. <i>Materials Science and Technology</i> , 2004, 20, 679-694.	1.6	24
107	PosgenPy: An Automated and Reproducible Approach to Assessing the Validity of Cluster Search Parameters in Atom Probe Tomography Datasets. <i>Microscopy and Microanalysis</i> , 0, , 1-10.	0.4	0
108	Developing Atom Probe Tomography to Characterize Sr-Loaded Bioactive Glass for Bone Scaffolding. <i>Microscopy and Microanalysis</i> , 0, , 1-11.	0.4	2