Julie Cairney

List of Publications by Year
in descending order

237 papers	9,500 citations	34076 52 h-index	54882 84 g-index
245 all docs	245 docs citations	245 times ranked	8391 citing authors

#	Article	IF	Citations
1	Cu2ZnSnS4 solar cells with over 10% power conversion efficiency enabled by heterojunction heat treatment. Nature Energy, 2018, 3, 764-772.	19.8	623
2	Atom Probe Microscopy. Springer Series in Materials Science, 2012, , .	0.4	501
3	Observation of hydrogen trapping at dislocations, grain boundaries, and precipitates. Science, 2020, 367, 171-175.	6.0	275
4	Microstructural evolution during ageing of Alâ€“Cuâ€“Liâ€“x alloys. Acta Materialia, 2014, 66, 199-208.	3.8	183
5	Long-Chain Terminal Alcohols through Catalytic CO Hydrogenation. Journal of the American Chemical Society, 2013, 135, 7114-7117.	6.6	169
6	Dynamic precipitation, segregation and strengthening of an Al-Zn-Mg-Cu alloy (AA7075) processed by high-pressure torsion. Acta Materialia, 2019, 162, 19-32.	3.8	166
7	Atom probe crystallography. Materials Today, 2012, 15, 378-386.	8.3	158
8	New insights into the phase transformations to isothermal Ï‰ and Ï‰-assisted Î± in near Î²-Ti alloys. Acta Materialia, 2016, 106, 353-366.	3.8	155
9	Characterizing deformed ultrafine-grained and nanocrystalline materials using transmission Kikuchi diffraction in a scanning electron microscope. Acta Materialia, 2014, 62, 69-80.	3.8	142
10	Transmission Kikuchi diffraction in a scanning electron microscope: A review. Materials Science and Engineering Reports, 2016, 110, 1-12.	14.8	138
11	Deformation-induced trace element redistribution in zircon revealed using atom probe tomography. Nature Communications, 2016, 7, 10490.	5.8	137
12	A reproducible method for damageâ€free siteâ€specific preparation of atom probe tips from interfaces. Microscopy Research and Technique, 2012, 75, 484-491.	1.2	134
13	Atom probe tomography. Nature Reviews Methods Primers, 2021, 1, .	11.8	131
14	Effect of ion irradiation on tensile ductility, strength and fictive temperature in metallic glass nanowires. Acta Materialia, 2014, 74, 165-182.	3.8	130
15	Observations of grain boundary impurities in nanocrystalline Al and their influence on microstructural stability and mechanical behaviour. Acta Materialia, 2012, 60, 1038-1047.	3.8	122
16	Phase Stability oftâ€²â€²Zirconiaâ€Based Thermal Barrier Coatings: Mechanistic Insights. Journal of the American Ceramic Society, 2011, 94, s168.	1.9	119
17	Isolated copperâ€“tin atomic interfaces tuning electrocatalytic CO2 conversion. Nature Communications, 2021, 12, 1449.	5.8	119
18	Nanocomposite Tiâ€“Siâ€“N, Zrâ€“Siâ€“N, Tiâ€“Alâ€“Siâ€“N, Tiâ€“Alâ€“Vâ€“Siâ€“N thin film coatings deposited by vacuum arc deposition. Surface and Coatings Technology, 2005, 200, 2228-2235.	2.2	117

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19	Penetration of protective chromia scales by carbon. Scripta Materialia, 2014, 77, 29-32.	2.6	113
20	Cd-Free Cu₂ZnSnS₄solar cell with an efficiency greater than 10% enabled by Al₂O₃passivation layers. Energy and Environmental Science, 2019, 12, 2751-2764.	15.6	112
21	Atomic-scale compositional mapping reveals Mg-rich amorphous calcium phosphate in human dental enamel. Science Advances, 2016, 2, e1601145.	4.7	107
22	On the multiplicity of field evaporation events in atom probe: A new dimension to the analysis of mass spectra. Philosophical Magazine Letters, 2010, 90, 121-129.	0.5	96
23	Strengthening from Nb-rich clusters in a Nb-microalloyed steel. Scripta Materialia, 2012, 66, 710-713.	2.6	91
24	The effect of coordination environment on the activity and selectivity of single-atom catalysts. Coordination Chemistry Reviews, 2022, 461, 214493.	9.5	91
25	Increasing the strength of nanocrystalline steels by annealing: Is segregation necessary?. Scripta Materialia, 2015, 95, 27-30.	2.6	89
26	Reducing the macroparticle content of cathodic arc evaporated TiN coatings. Surface and Coatings Technology, 2004, 183, 283-294.	2.2	87
27	Fatigue properties of AlSi10Mg produced by Additive Layer Manufacturing. International Journal of Fatigue, 2019, 119, 160-172.	2.8	86
28	Tunable Syngas Production through CO₂ Electroreduction on Cobaltâ€“Carbon Composite Electrocatalyst. ACS Applied Materials & Interfaces, 2020, 12, 9307-9315.	4.0	79
29	The mechanism of ï‰-assisted Î± phase formation in near Î²-Ti alloys. Scripta Materialia, 2015, 104, 75-78.	2.6	75
30	Dynamic reconstruction for atom probe tomography. Ultramicroscopy, 2011, 111, 1619-1624.	0.8	72
31	Superelasticity and Tunable Thermal Expansion across a Wide Temperature Range. Journal of Materials Science and Technology, 2016, 32, 705-709.	5.6	72
32	Atom probe specimen fabrication methods using a dual FIB/SEM. Ultramicroscopy, 2007, 107, 756-760.	0.8	71
33	Understanding solid solution strengthening at elevated temperatures in a creep-resistant Mgâ€“Gdâ€“Ca alloy. Acta Materialia, 2019, 181, 185-199.	3.8	71
34	Three-dimensional investigation of particle-stimulated nucleation in a nickel alloy. Acta Materialia, 2007, 55, 5157-5167.	3.8	68
35	Designing Undercoordinated Niâ€“N_x and Feâ€“N_x on Holey Graphene for Electrochemical CO₂ Conversion to Syngas. ACS Nano, 2021, 15, 12006-12018.	7.3	68
36	Techniques for generating 3-D EBSD microstructures by FIB tomography. Materials Characterization, 2007, 58, 961-967.	1.9	66

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37	Degradation of TiN coatings under cyclic loading. Acta Materialia, 2004, 52, 3229-3237.	3.8	65
38	Synthesis and performance evaluation of thin film PPy-PVDF multilayer electroactive polymer actuators. Sensors and Actuators A: Physical, 2011, 165, 321-328.	2.0	65
39	Atomic-Level Insights into the Edge Active ReS₂ Ultrathin Nanosheets for High-Efficiency Light-to-Hydrogen Conversion. , 2020, 2, 1484-1494.		65
40	Phase Evolution upon Aging of Air Plasma Sprayed tâ€²â€Zirconia Coatings: <scp>II</scp>â€“Microstructure Evolution. Journal of the American Ceramic Society, 2013, 96, 299-307.	1.9	63
41	Precipitation and clustering in the early stages of ageing in Inconel 718. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 7770-7774.	2.6	61
42	Investigating the microstructure and composition of cold gas-dynamic spray (CGDS) Ti powder deposited on Al 6063 substrate. Surface and Coatings Technology, 2010, 204, 3739-3749.	2.2	61
43	Optimization of pulsed laser atom probe (PLAP) for the analysis of nanocomposite Tiâ€“Siâ€“N films. Ultramicroscopy, 2010, 110, 836-843.	0.8	60
44	Crystallographic structural analysis in atom probe microscopy via 3D Hough transformation. Ultramicroscopy, 2011, 111, 458-463.	0.8	59
45	Deformation mechanisms operating during nanoindentation of TiN coatings on steel substrates. Surface and Coatings Technology, 2005, 192, 11-18.	2.2	57
46	Elemental partitioning of platinum group metal containing Ni-base superalloys using electron microprobe analysis and atom probe tomography. Acta Materialia, 2010, 58, 1952-1962.	3.8	57
47	Atom probe crystallography: Atomic-scale 3-D orientation mapping. Scripta Materialia, 2012, 66, 907-910.	2.6	57
48	High Efficiency Cu₂ZnSn(S,Se)₄ Solar Cells with Shallow Li_{Zn} Acceptor Defects Enabled by Solutionâ€Based Li Postâ€Deposition Treatment. Advanced Energy Materials, 2021, 11, 2003783.	10.2	57
49	The evolution of microstructure and mechanical properties of Tiâ€“5Alâ€“5Moâ€“5Vâ€“2Crâ€“1Fe during ageing. Journal of Alloys and Compounds, 2015, 629, 260-273.	2.8	56
50	New approaches to nanoparticle sample fabrication for atom probe tomography. Ultramicroscopy, 2015, 159, 413-419.	0.8	56
51	Enhanced photoelectrochemical water-splitting performance with a hierarchical heterostructure: Co3O4 nanodots anchored TiO2@P-C3N4 core-shell nanorod arrays. Chemical Engineering Journal, 2021, 404, 126458.	6.6	56
52	Segregation of B, P, and C in the Ni-Based Superalloy, Inconel 718. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 2183-2191.	1.1	54
53	An automated method of quantifying ferrite microstructures using electron backscatter diffraction (EBSD) data. Ultramicroscopy, 2014, 137, 40-47.	0.8	54
54	A quantitative atom probe study of the Nb excess at prior austenite grain boundaries in a Nb microalloyed strip-cast steel. Acta Materialia, 2012, 60, 5049-5055.	3.8	52

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55	Atom probe crystallography: Characterization of grain boundary orientation relationships in nanocrystalline aluminium. Ultramicroscopy, 2011, 111, 493-499.	0.8	51
56	FeS2 bridging function to enhance charge transfer between MoS2 and gâ€“C3N4 for efficient hydrogen evolution reaction. Chemical Engineering Journal, 2021, 421, 127804.	6.6	51
57	Mining information from atom probe data. Ultramicroscopy, 2015, 159, 324-337.	0.8	50
58	Elastically confined martensitic transformation at the nano-scale in a multifunctional titanium alloy. Acta Materialia, 2017, 135, 330-339.	3.8	50
59	Deformation and fracture of TiN and TiAlN coatings on a steel substrate during nanoindentation. Surface and Coatings Technology, 2006, 200, 3518-3526.	2.2	48
60	Effect of tool wear evolution on chip formation during dry machining ofÂTi-6Al-4V alloy. International Journal of Machine Tools and Manufacture, 2018, 126, 13-17.	6.2	47
61	Impurity Tolerance of Unsaturated Ni-N-C Active Sites for Practical Electrochemical CO₂ Reduction. ACS Energy Letters, 2022, 7, 920-928.	8.8	47
62	The anatomy of grain boundaries: Their structure and atomic-level solute distribution. Scripta Materialia, 2013, 69, 622-625.	2.6	46
63	Correlating Atom Probe Crystallographic Measurements with Transmission Kikuchi Diffraction Data. Microscopy and Microanalysis, 2017, 23, 279-290.	0.2	46
64	Redeposition effects in transmission electron microscope specimens of FeAlâ€“WC composites prepared using a focused ion beam. Micron, 2003, 34, 97-107.	1.1	45
65	Detecting and extracting clusters in atom probe data: A simple, automated method using Voronoi cells. Ultramicroscopy, 2015, 150, 30-36.	0.8	44
66	The application of focused ion beam technology to the characterization of coatings. Surface and Coatings Technology, 2005, 198, 165-168.	2.2	43
67	Fabrication of dies in micro-scale for micro-sheet metal forming. Journal of Materials Processing Technology, 2006, 177, 639-643.	3.1	43
68	Tracing the coupled atomic shear and shuffle for a cubic to a hexagonal crystal transition. Scripta Materialia, 2017, 133, 70-74.	2.6	43
69	Effect of Nb Microalloying and Hot Rolling on Microstructure and Properties of Ultrathin Cast Strip Steels Produced by the CASTRIPÂ® Process. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2011, 42, 2199-2206.	1.1	42
70	Revealing the Distribution of the Atoms within Individual Bimetallic Catalyst Nanoparticles. Angewandte Chemie - International Edition, 2014, 53, 11190-11193.	7.2	42
71	Atom probe study of impurity segregation at grain boundaries in chromia scales grown in CO2 gas. Corrosion Science, 2018, 132, 125-135.	3.0	42
72	Shaping the lens of the atom probe: Fabrication of site specific, oriented specimens and application to grain boundary analysis. Ultramicroscopy, 2011, 111, 435-439.	0.8	41

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73	Hydrogen trapping and desorption of dual precipitates in tempered low-carbon martensitic steel. Acta Materialia, 2020, 196, 516-527.	3.8	41
74	Phase stability of thermal barrier oxides: A comparative study of Y and Yb additions. International Journal of Materials Research, 2007, 98, 1177-1187.	0.1	40
75	Focused-ion-beam Milling: A Novel Approach to Probing the Interior of Particles Used for Inhalation Aerosols. Pharmaceutical Research, 2007, 24, 1608-1617.	1.7	40
76	A New Approach to the Determination of Concentration Profiles in Atom Probe Tomography. Microscopy and Microanalysis, 2012, 18, 359-364.	0.2	40
77	Factors that affect the properties of additively-manufactured AlSi10Mg: Porosity versus microstructure. Additive Manufacturing, 2019, 29, 100805.	1.7	40
78	Zrâ€“Siâ€“N films fabricated using hybrid cathodic arc and chemical vapour deposition: Structure vs. properties. Surface and Coatings Technology, 2006, 200, 4213-4219.	2.2	39
79	The influence of partitioning on the growth of intragranular Î± in near-Î² Ti alloys. Journal of Alloys and Compounds, 2015, 643, 212-222.	2.8	39
80	Transmission electron microscopy of TiN and TiAlN thin films using specimens prepared by focused ion beam milling. Surface and Coatings Technology, 2004, 183, 239-246.	2.2	38
81	Effect of coating thickness on the deformation mechanisms in PVD TiN-coated steel. Surface and Coatings Technology, 2010, 204, 1764-1773.	2.2	38
82	Significantly Raised Visibleâ€Light Photocatalytic H₂ Evolution on a 2D/2D ReS₂/In₂ZnS₄ van der Waals Heterostructure. Small, 2021, 17, e2100296.	5.2	38
83	Applying computational geometry techniques for advanced feature analysis in atom probe data. Ultramicroscopy, 2013, 132, 100-106.	0.8	37
84	The role of Ï‰ in the precipitation of Î± in near-Î² Ti alloys. Scripta Materialia, 2016, 117, 92-95.	2.6	37
85	Effect of niobium clustering and precipitation on strength of an NbTi-microalloyed ferritic steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 607, 226-235.	2.6	36
86	A study on novel AISI 304 stainless steel matrix composites reinforced with (Nb0.75,Ti0.25)C. Wear, 2018, 398-399, 220-226.	1.5	36
87	Deformation and fracture of Tiâ€“Siâ€“N nanocomposite films. Thin Solid Films, 2005, 479, 193-200.	0.8	35
88	Fabrication and characterization of microstructure of stainless steel matrix composites containing up to 25vol% NbC. Materials Characterization, 2016, 119, 65-74.	1.9	35
89	Effect of austenite deformation temperature on Nb clustering and precipitation in microalloyed steel. Scripta Materialia, 2014, 75, 74-77.	2.6	34
90	New frontiers in atom probe tomography: a review of research enabled by cryo and/or vacuum transfer systems. Materials Today Advances, 2020, 7, 100090.	2.5	34

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91	Plastic Deformation of Singleâ€Crystal Diamond Nanopillars. Advanced Materials, 2020, 32, e1906458.	11.1	34
92	Optimisation of specimen temperature and pulse fraction in atom probe microscopy experiments on a microalloyed steel. Ultramicroscopy, 2011, 111, 648-651.	0.8	33
93	The effect of pre-existing defects on the strength and deformation behavior of Î±-Fe nanopillars. Acta Materialia, 2013, 61, 439-452.	3.8	33
94	Linking stress-driven microstructural evolution in nanocrystalline aluminium with grain boundary doping of oxygen. Nature Communications, 2016, 7, 11225.	5.8	33
95	Transmission Electron Microscope Specimen Preparation of Metal Matrix Composites Using the Focused Ion Beam Miller. Microscopy and Microanalysis, 2000, 6, 452-462.	0.2	32
96	Crystal structures of orthorhombic, hexagonal, and cubic compounds of the Sm(x)Yb(2â^'x)TiO5 series. Journal of Solid State Chemistry, 2014, 213, 182-192.	1.4	31
97	Breaking the icosahedra in boron carbide. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 12012-12016.	3.3	31
98	Nucleation driving force for Ï‰-assisted formation of Î± and associated Ï‰ morphology in Î²-Ti alloys. Scripta Materialia, 2018, 155, 149-154.	2.6	31
99	Slurry erosion, sliding wear and corrosion behavior of martensitic stainless steel composites reinforced in-situ with NbC particles. Wear, 2019, 420-421, 149-162.	1.5	31
100	Site-specific specimen preparation for atom probe tomography of grain boundaries. Physica B: Condensed Matter, 2007, 394, 267-269.	1.3	30
101	Thin-film nanocomposites of diamond-like carbon and titanium oxide; Osteoblast adhesion and surface properties. Diamond and Related Materials, 2010, 19, 329-335.	1.8	30
102	Resolving the Morphology of Niobium Carbonitride Nano-Precipitates in Steel Using Atom Probe Tomography. Microscopy and Microanalysis, 2014, 20, 1100-1110.	0.2	30
103	Atom probe study of chromium oxide spinels formed during intergranular corrosion. Scripta Materialia, 2015, 99, 1-4.	2.6	30
104	Performance of graphene, carbon nanotube, and gold nanoparticle chemiresistor sensors for the detection of petroleum hydrocarbons in water. Journal of Nanoparticle Research, 2014, 16, 1.	0.8	29
105	Interpreting atom probe data from chromium oxide scales. Ultramicroscopy, 2015, 159, 354-359.	0.8	29
106	Microstructure characterisation and mechanical properties of a functionally-graded NbC/high chromium white cast iron composite. Materials Characterization, 2018, 136, 196-205.	1.9	29
107	Deposition of nanocomposite TiN-Si3N4 thin films by hybrid cathodic arc and chemical vapor process. Applied Physics A: Materials Science and Processing, 2005, 81, 151-158.	1.1	28
108	Martensitic transformation in an intergranular corrosion area of austenitic stainless steel during thermal cycling. Corrosion Science, 2014, 85, 1-6.	3.0	28

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109	Mapping interfacial excess in atom probe data. Ultramicroscopy, 2015, 159, 438-444.	0.8	28
110	Microstructural investigation of Tiâ€“Siâ€“N hard coatings. Scripta Materialia, 2010, 63, 192-195.	2.6	27
111	Effect of electrolyte storage layer on performance of PPy-PVDF-PPy microactuators. Sensors and Actuators B: Chemical, 2011, 155, 810-816.	4.0	27
112	Pushing the Limits for Microactuators Based on Electroactive Polymers. Journal of Microelectromechanical Systems, 2012, 21, 574-585.	1.7	27
113	A new systematic framework for crystallographic analysis of atom probe data. Ultramicroscopy, 2015, 154, 7-14.	0.8	27
114	Atom probe tomography analysis of the reference zircon gj-1: An interlaboratory study. Chemical Geology, 2018, 495, 27-35.	1.4	27
115	High strength heat-treatable Î²-titanium alloy for additive manufacturing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 791, 139646.	2.6	27
116	Deposition of nanocomposite thin films by a hybrid cathodic arc and chemical vapour technique. Surface and Coatings Technology, 2006, 201, 4139-4144.	2.2	26
117	Cluster strengthening of Nb-microalloyed ultra-thin cast strip steels produced by the CASTRIPÂ® process. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 568, 88-95.	2.6	26
118	Nanoscale pathways for human tooth decay â€“ Central planar defect, organic-rich precipitate and high-angle grain boundary. Biomaterials, 2020, 235, 119748.	5.7	26
119	Characterization of TiN thin films subjected to nanoindentation using focused ion beam milling. Applied Surface Science, 2004, 237, 627-631.	3.1	25
120	The rise of computational techniques in atom probe microscopy. Current Opinion in Solid State and Materials Science, 2013, 17, 224-235.	5.6	25
121	Stabilizing the body centered cubic crystal in titanium alloys by a nano-scale concentration modulation. Journal of Alloys and Compounds, 2017, 700, 155-158.	2.8	25
122	Laser-Assisted Atom Probe Tomography of Deformed Minerals: A Zircon Case Study. Microscopy and Microanalysis, 2017, 23, 404-413.	0.2	25
123	Roles of Nd and Mn in a new creep-resistant magnesium alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 779, 139152.	2.6	25
124	Preparation of transmission electron microscope specimens from FeAl and WC powders using focused-ion beam milling. Materials Characterization, 2001, 46, 297-304.	1.9	24
125	Trace element homogeneity from micron- to atomic scale: Implication for the suitability of the zircon GJ-1 as a trace element reference material. Chemical Geology, 2017, 456, 10-18.	1.4	24
126	Three dimensional imaging of deformation modes in TiN-based thin film coatings. Thin Solid Films, 2007, 515, 3190-3195.	0.8	23

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127	Examination of fracture surfaces using focused ion beam milling. Scripta Materialia, 2000, 42, 473-478.	2.6	22
128	Precipitation of the Î±-phase in an ultrafine grained beta-titanium alloy processed by severe plastic deformation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 605, 144-150.	2.6	22
129	Threeâ€dimensional nanofabrication of polystyrene by focused ion beam. Journal of Microscopy, 2012, 248, 129-139.	0.8	21
130	The effect of clustering on the mobility of dislocations during aging in Nb-microalloyed strip cast steels: In situ heating TEM observations. Scripta Materialia, 2013, 69, 481-484.	2.6	21
131	Insight into the deformation mechanisms of Î±-Fe at the nanoscale. Scripta Materialia, 2011, 65, 1037-1040.	2.6	20
132	Ion-irradiation resistance of the orthorhombic Ln2TiO5 (LnÂ=ÂLa, Pr, Nd, Sm, Eu, Gd, Tb and Dy) series. Journal of Nuclear Materials, 2015, 467, 683-691.	1.3	20
133	Continuous and reversible atomic rearrangement in a multifunctional titanium alloy. Materialia, 2018, 2, 1-8.	1.3	20
134	Designing Co3O4/silica catalysts and intensified ultrafiltration membrane-catalysis process for wastewater treatment. Chemical Engineering Journal, 2021, 419, 129465.	6.6	20
135	Predicting the fatigue life of an AlSi10Mg alloy manufactured via laser powder bed fusion by using data from computed tomography. Additive Manufacturing, 2020, 32, 100899.	1.7	19
136	Crystal chemistry of the orthorhombic Ln2TiO5 compounds with Ln=La, Pr, Nd, Sm, Gd, Tb and Dy. Journal of Solid State Chemistry, 2015, 227, 60-67.	1.4	18
137	Performance of an FeCrAl alloy in a high-temperature CO2 environment. Corrosion Science, 2018, 139, 267-274.	3.0	18
138	Ultrahigh-strength submicron-sized metallic glass wires. Scripta Materialia, 2014, 84-85, 27-30.	2.6	17
139	Point-by-point compositional analysis for atom probe tomography. MethodsX, 2014, 1, 12-18.	0.7	17
140	Some factors affecting EBSD pattern quality of Ga+ ion-milled face centred cubic metal surfaces. Materials Chemistry and Physics, 2007, 106, 142-148.	2.0	16
141	Overcoming challenges in the study of nitrided microalloyed steels using atom probe. Ultramicroscopy, 2012, 112, 32-38.	0.8	15
142	Elemental distributions within multiphase quaternary Pb chalcogenide thermoelectric materials determined through three-dimensional atom probe tomography. Nano Energy, 2016, 26, 157-163.	8.2	15
143	The influence of crystal structure on ion-irradiation tolerance in the Sm(x)Yb(2-x)TiO5 series. Journal of Nuclear Materials, 2016, 471, 17-24.	1.3	15
144	Precipitation of (Ti, Zr, Nb, Ta, Hf)C high entropy carbides in a steel matrix. Materialia, 2020, 9, 100540.	1.3	15

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145	Versatile direct-writing of dopants in a solid state host through recoil implantation. Nature Communications, 2020, 11, 5039.	5.8	15
146	The crystal structures and corresponding ion-irradiation response for the Tb(x)Yb(2â^'x)TiO5 series. Ceramics International, 2018, 44, 511-519.	2.3	15
147	New atom probe approaches to studying segregation in nanocrystalline materials. Ultramicroscopy, 2013, 132, 158-163.	0.8	14
148	A computational geometry framework for the optimisation of atom probe reconstructions. Ultramicroscopy, 2016, 169, 62-68.	0.8	14
149	Atoms on the moveâ€"finding the hydrogen. Science, 2017, 355, 1128-1129.	6.0	14
150	Flame-made amorphous solid acids with tunable acidity for the aqueous conversion of glucose to levulinic acid. Green Chemistry, 2020, 22, 688-698.	4.6	14
151	A multi-ion plasma FIB study: Determining ion implantation depths of Xe, N, O and Ar in tungsten via atom probe tomography. Ultramicroscopy, 2021, 228, 113334.	0.8	14
152	Giant room temperature compression and bending in ferroelectric oxide pillars. Nature Communications, 2022, 13, 335.	5.8	14
153	Defining the Potential of Nanoscale Reâ€Os Isotope Systematics Using Atom Probe Microscopy. Geostandards and Geoanalytical Research, 2018, 42, 279-299.	1.7	13
154	Analytical Techniques for Probing Small-Scale Layers that Preserve Information on Gasâ€"Solid Interactions. Reviews in Mineralogy and Geochemistry, 2018, 84, 103-175.	2.2	13
155	Fracture toughness testing using photogrammetry and digital image correlation. MethodsX, 2018, 5, 1166-1177.	0.7	13
156	The ion-irradiation tolerance of the pyrochlore to fluorite Ho(x)Yb(2-x)TiO5 and Er2TiO5 compounds: A TEM comparative study using both in-situ and bulk ex-situ irradiation approaches. Journal of Nuclear Materials, 2018, 507, 316-326.	1.3	13
157	Thin film composites of nanocrystalline ZrO2 and diamond-like carbon: Synthesis, structural properties and bone cell proliferation. Acta Biomaterialia, 2010, 6, 4154-4160.	4.1	12
158	Advanced volume reconstruction and data mining methods in atom probe tomography. MRS Bulletin, 2016, 41, 46-52.	1.7	12
159	Real-time observation of stress-induced domain evolution in a [011]ÂPIN-PMN-PT relaxor ferroelectric single crystal. Acta Materialia, 2019, 175, 436-444.	3.8	12
160	Understanding the mechanical behavior of nanocrystalline Alâ€"O thin films with complex microstructures. Acta Materialia, 2014, 77, 269-283.	3.8	11
161	Influence of Ni Solute segregation on the intrinsic growth stresses in Cu(Ni) thin films. Scripta Materialia, 2016, 113, 131-134.	2.6	11
162	A New Approach to Understand the Adsorption of Thiophene on Different Surfaces: An Atom Probe Investigation of Self-Assembled Monolayers. Langmuir, 2017, 33, 9573-9581.	1.6	11

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163	Thermally stable epitaxial ZrN/carrier-compensated Sc0.99Mg0.01N metal/semiconductor multilayers for thermionic energy conversion. Journal of Materials Science, 2020, 55, 1592-1602.	1.7	11
164	Understanding the role of facets and twin defects in the optical performance of GaAs nanowires for laser applications. Nanoscale Horizons, 2021, 6, 559-567.	4.1	11
165	The Hidden Pathways in Dense Energy Materials â€“ Oxygen at Defects in Nanocrystalline Metals. Advanced Materials, 2015, 27, 6220-6224.	11.1	10
166	A Gas-Phase Reaction Cell for Modern Atom Probe Systems. Microscopy and Microanalysis, 2019, 25, 410-417.	0.2	10
167	Carbon-Coating Layers on Boron Generated High Critical Current Density in MgB2 Superconductor. ACS Applied Materials & Interfaces, 2020, 12, 8563-8572.	4.0	10
168	Micron-scale polymerâ€“metal cantilever actuators fabricated by focused ion beam. Sensors and Actuators A: Physical, 2011, 172, 462-470.	2.0	9
169	Atom probe microscopy characterization of as quenched Zrâ€“0.8wt% Fe and Zrâ€“0.15wt% Cr binary alloys. Materials Letters, 2013, 91, 63-66.	1.3	9
170	Correlating spatial, temporal and chemical information in atom probe data: new insights from multiple evaporation in microalloyed steels. Philosophical Magazine Letters, 2013, 93, 299-306.	0.5	9
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