Baptiste Gault

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/4757664/publications.pdf

Version: 2024-02-01

369	15,884	19657 61	26613 107
papers	citations	h-index	g-index

387	387	387	8697
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Enhanced strength and ductility in a high-entropy alloy via ordered oxygen complexes. Nature, 2018, 563, 546-550.	27.8	988
2	Ultrastrong steel via minimal lattice misfit and high-density nanoprecipitation. Nature, 2017, 544, 460-464.	27.8	843
3	Atom Probe Microscopy. Springer Series in Materials Science, 2012, , .	0.6	501
4	Hot cracking mechanism affecting a non-weldable Ni-based superalloy produced by selective electron Beam Melting. Acta Materialia, 2018, 142, 82-94.	7.9	344
5	Ultrastrong Mediumâ€Entropy Singleâ€Phase Alloys Designed via Severe Lattice Distortion. Advanced Materials, 2019, 31, e1807142.	21.0	301
6	Design of a femtosecond laser assisted tomographic atom probe. Review of Scientific Instruments, 2006, 77, 043705.	1.3	295
7	Interstitial atoms enable joint twinning and transformation induced plasticity in strong and ductile high-entropy alloys. Scientific Reports, 2017, 7, 40704.	3.3	279
8	High-strength Damascus steel by additive manufacturing. Nature, 2020, 582, 515-519.	27.8	260
9	Advances in the calibration of atom probe tomographic reconstruction. Journal of Applied Physics, 2009, 105, .	2.5	214
10	Advances in the reconstruction of atom probe tomography data. Ultramicroscopy, 2011, 111, 448-457.	1.9	209
11	Segregation assisted grain boundary precipitation in a model Al-Zn-Mg-Cu alloy. Acta Materialia, 2018, 156, 318-329.	7.9	189
12	Microstructural evolution during ageing of Alâ€“Cuâ€“Liâ€“x alloys. Acta Materialia, 2014, 66, 199-208.	7.9	183
13	Strengthening and strain hardening mechanisms in a precipitation-hardened high-Mn lightweight steel. Acta Materialia, 2017, 140, 258-273.	7.9	179
14	Atomic-scale grain boundary engineering to overcome hot-cracking in additively-manufactured superalloys. Acta Materialia, 2019, 177, 209-221.	7.9	165
15	Atomic-scale insights into surface species of electrocatalysts in three dimensions. Nature Catalysis, 2018, 1, 300-305.	34.4	161
16	Atom probe crystallography. Materials Today, 2012, 15, 378-386.	14.2	158
17	Spatial Resolution in Atom Probe Tomography. Microscopy and Microanalysis, 2010, 16, 99-110.	0.4	153
18	Degradation of iridium oxides via oxygen evolution from the lattice: correlating atomic scale structure with reaction mechanisms. Energy and Environmental Science, 2019, 12, 3548-3555.	30.8	147

#	Article	IF	Citations
19	Estimation of the Reconstruction Parameters for Atom Probe Tomography. Microscopy and Microanalysis, 2008, 14, 296-305.	0.4	143
20	Impact of directional walk on atom probe microanalysis. Ultramicroscopy, 2012, 113, 182-191.	1.9	135
21	The effect of chromium and cobalt segregation at dislocations on nickel-based superalloys. Scripta Materialia, 2018, 145, 76-80.	5.2	132
22	Atom probe tomography. Nature Reviews Methods Primers, 2021, 1, .	21.2	131
23	Behavior of molecules and molecular ions near a field emitter. New Journal of Physics, 2016, 18, 033031.	2.9	130
24	Qualification of the tomographic reconstruction in atom probe by advanced spatial distribution map techniques. Ultramicroscopy, 2009, 109, 815-824.	1.9	129
25	Reconstructing atom probe data: A review. Ultramicroscopy, 2013, 132, 19-30.	1.9	126
26	Atom probe tomography spatial reconstruction: Status and directions. Current Opinion in Solid State and Materials Science, 2013, 17, 236-247.	11.5	122
27	Current Challenges and Opportunities in Microstructure-Related Properties of Advanced High-Strength Steels. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 5517-5586.	2.2	115
28	Crack initiation mechanisms during very high cycle fatigue of Ni-based single crystal superalloys at high temperature. Acta Materialia, 2020, 188, 131-144.	7.9	112
29	Correlated field evaporation as seen by atom probe tomography. Surface Science, 2007, 601, 536-543.	1.9	110
30	Hydrogen trapping and embrittlement in high-strength Al alloys. Nature, 2022, 602, 437-441.	27.8	109
31	Revealing fracture mechanisms of medium manganese steels with and without delta-ferrite. Acta Materialia, 2019, 164, 683-696.	7.9	108
32	Segregation-driven grain boundary spinodal decomposition as a pathway for phase nucleation in a high-entropy alloy. Acta Materialia, 2019, 178, 1-9.	7.9	102
33	Phase nucleation through confined spinodal fluctuations at crystal defects evidenced in Fe-Mn alloys. Nature Communications, 2018, 9, 1137.	12.8	101
34	Unveiling the Re effect in Ni-based single crystal superalloys. Nature Communications, 2020, 11, 389.	12.8	101
35	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.	1.2	96
36	Atom probe tomography and transmission electron microscopy characterisation of precipitation in an Alâ€“Cuâ€“Liâ€“Mgâ€“Ag alloy. Ultramicroscopy, 2011, 111, 683-689.	1.9	96

#	Article	IF	Citations
37	On the diffusive phase transformation mechanism assisted by extended dislocations during creep of a single crystal CoNi-based superalloy. Acta Materialia, 2018, 155, 362-371.	7.9	89
38	Ti and its alloys as examples of cryogenic focused ion beam milling of environmentally-sensitive materials. Nature Communications, 2019, 10, 942.	12.8	89
39	Estimation of the tip field enhancement on a field emitter under laser illumination. Applied Physics Letters, 2005, 86, 094101.	3.3	84
40	On the effect of Re addition on microstructural evolution of a CoNi-based superalloy. Acta Materialia, 2019, 168, 37-51.	7.9	83
41	Metrology of small particles and solute clusters by atom probe tomography. Acta Materialia, 2020, 188, 406-415.	7.9	83
42	Chemical heterogeneity enhances hydrogen resistance in high-strength steels. Nature Materials, 2021, 20, 1629-1634.	27.5	83
43	Influence of surface migration on the spatial resolution of pulsed laser atom probe tomography. Journal of Applied Physics, 2010, 108, .	2.5	81
44	Characterizing solute hydrogen and hydrides in pure and alloyed titanium at the atomic scale. Acta Materialia, 2018, 150, 273-280.	7.9	81
45	Lattice Oxygen Exchange in Rutile IrO₂ during the Oxygen Evolution Reaction. Journal of Physical Chemistry Letters, 2020, 11, 5008-5014.	4.6	81
46	Origin of the spatial resolution in atom probe microscopy. Applied Physics Letters, 2009, 95, 034103.	3.3	80
47	Some aspects of the field evaporation behaviour of GaSb. Ultramicroscopy, 2011, 111, 487-492.	1.9	77
48	On the origin of a remarkable increase in the strength and stability of an Al rich Al-Ni eutectic alloy by Zr addition. Acta Materialia, 2019, 170, 205-217.	7.9	77
49	On the formation of hierarchical microstructure in a Mo-doped NiCoCr medium-entropy alloy with enhanced strength-ductility synergy. Scripta Materialia, 2020, 175, 1-6.	5.2	75
50	Ag-Segregation to Dislocations in PbTe-Based Thermoelectric Materials. ACS Applied Materials & Interfaces, 2018, 10, 3609-3615.	8.0	74
51	Confined chemical and structural states at dislocations in Fe-9wt%Mn steels: A correlative TEM-atom probe study combined with multiscale modelling. Acta Materialia, 2017, 124, 305-315.	7.9	73
52	On the grain boundary strengthening effect of boron in Î³/Î³â€² Cobalt-base superalloys. Acta Materialia, 2018, 145, 247-254.	7.9	73
53	Revealing nano-chemistry at lattice defects in thermoelectric materials using atom probe tomography. Materials Today, 2020, 32, 260-274.	14.2	73
54	Estimation of the cooling times for a metallic tip under laser illumination. Applied Physics Letters, 2006, 88, 094105.	3.3	72

#	Article	IF	Citations
55	Dynamic reconstruction for atom probe tomography. Ultramicroscopy, 2011, 111, 1619-1624.	1.9	72
56	Toward a laser assisted wide-angle tomographic atom-probe. Surface and Interface Analysis, 2007, 39, 278-282.	1.8	71
57	Reactive wear protection through strong and deformable oxide nanocomposite surfaces. Nature Communications, 2021, 12, 5518.	12.8	70
58	Multi-scale characterization of austenite reversion and martensite recovery in a cold-rolled medium-Mn steel. Acta Materialia, 2019, 166, 512-530.	7.9	67
59	Microstructure formation and mechanical properties of ODS steels built by laser additive manufacturing of nanoparticle coated iron-chromium powders. Acta Materialia, 2021, 206, 116566.	7.9	67
60	Crystalâ€“Glass Highâ€Entropy Nanocomposites with Near Theoretical Compressive Strength and Large Deformability. Advanced Materials, 2020, 32, e2002619.	21.0	66
61	Atom probe microscopy investigation of Mg site occupancy within Î´â€² precipitates in an Alâ€“Mgâ€“Li alloy. Scripta Materialia, 2012, 66, 903-906.	5.2	65
62	Strain-Induced Asymmetric Line Segregation at Faceted Si Grain Boundaries. Physical Review Letters, 2018, 121, 015702.	7.8	65
63	Elemental site occupancy in the L12 A3B ordered intermetallic phase in Co-based superalloys and its influence on the microstructure. Acta Materialia, 2019, 163, 140-153.	7.9	65
64	Elemental distribution in the martensiteâ€“austenite constituent in intercritically reheated coarse-grained heat-affected zone of a high-strength pipeline steel. Scripta Materialia, 2017, 139, 67-70.	5.2	64
65	Solute hydrogen and deuterium observed at the near atomic scale in high-strength steel. Acta Materialia, 2020, 188, 108-120.	7.9	64
66	Influence of composition and precipitation evolution on damage at grain boundaries in a crept polycrystalline Ni-based superalloy. Acta Materialia, 2019, 166, 158-167.	7.9	61
67	Influence of microstructure and atomic-scale chemistry on the direct reduction of iron ore with hydrogen at 700Â°C. Acta Materialia, 2021, 212, 116933.	7.9	61
68	Optimization of pulsed laser atom probe (PLAP) for the analysis of nanocomposite Tiâ€“Siâ€“N films. Ultramicroscopy, 2010, 110, 836-843.	1.9	60
69	Core-shell nanoparticle arrays double the strength of steel. Scientific Reports, 2017, 7, 42547.	3.3	60
70	Competition between formation of carbides and reversed austenite during tempering of a medium-manganese steel studied by thermodynamic-kinetic simulations and atom probe tomography. Acta Materialia, 2018, 147, 165-175.	7.9	60
71	Carbon redistribution in quenched and tempered lath martensite. Acta Materialia, 2021, 205, 116521.	7.9	60
72	On the detection of multiple events in atom probe tomography. Ultramicroscopy, 2018, 189, 54-60.	1.9	59

#	Article	IF	Citations
73	Lattice Rectification in Atom Probe Tomography: Toward True Three-Dimensional Atomic Microscopy. Microscopy and Microanalysis, 2011, 17, 226-239.	0.4	58
74	Thermophysical and Mechanical Properties of Advanced Single Crystalline Co-base Superalloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 4099-4109.	2.2	58
75	Evidence of field evaporation assisted by nonlinear optical rectification induced by ultrafast laser. Physical Review B, 2006, 73, .	3.2	57
76	Atom probe crystallography: Atomic-scale 3-D orientation mapping. Scripta Materialia, 2012, 66, 907-910.	5.2	57
77	The Laplace Project: An integrated suite for preparing and transferring atom probe samples under cryogenic and UHV conditions. PLoS ONE, 2018, 13, e0209211.	2.5	57
78	High-rate superplasticity in an equiatomic medium-entropy VCoNi alloy enabled through dynamic recrystallization of a duplex microstructure of ordered phases. Acta Materialia, 2020, 194, 106-117.	7.9	57
79	Direct atomic insight into the role of dopants in phase-change materials. Nature Communications, 2019, 10, 3525.	12.8	56
80	Thermodynamics of grain boundary segregation, interfacial spinodal and their relevance for nucleation during solid-solid phase transitions. Acta Materialia, 2019, 168, 109-120.	7.9	56
81	Snoek-type damping performance in strong and ductile high-entropy alloys. Science Advances, 2020, 6, eaba7802.	10.3	56
82	Parameter free quantitative analysis of atom probe data by correlation functions: Application to the precipitation in Al-Zn-Mg-Cu. Scripta Materialia, 2018, 154, 106-110.	5.2	55
83	Electrostatic simulations of a local electrode atom probe: The dependence of tomographic reconstruction parameters on specimen and microscope geometry. Ultramicroscopy, 2013, 132, 107-113.	1.9	53
84	Atomically resolved tomography to directly inform simulations for structureâ€“property relationships. Nature Communications, 2014, 5, 5501.	12.8	53
85	Why Tinâ€Doping Enhances the Efficiency of Hematite Photoanodes for Water Splittingâ€”The Full Picture. Advanced Functional Materials, 2018, 28, 1804472.	14.9	53
86	Nbâ€Mediated Grain Growth and Grainâ€Boundary Engineering in Mg₃Sb₂â€Based Thermoelectric Materials. Advanced Functional Materials, 2021, 31, 2100258.	14.9	53
87	Determination of the tip temperature in laser assisted atom-probe tomography using charge state distributions. Journal of Applied Physics, 2008, 104, .	2.5	52
88	Impact of laser pulsing on the reconstruction in an atom probe tomography. Ultramicroscopy, 2010, 110, 1215-1222.	1.9	51
89	Atom probe crystallography: Characterization of grain boundary orientation relationships in nanocrystalline aluminium. Ultramicroscopy, 2011, 111, 493-499.	1.9	51
90	Sodium enhances indium-gallium interdiffusion in copper indium gallium diselenide photovoltaic absorbers. Nature Communications, 2018, 9, 826.	12.8	51

#	Article	IF	Citations
91	On the segregation of Re at dislocations in the Î³' phase of Ni-based single crystal superalloys. Materialia, 2018, 4, 109-114.	2.7	51
92	Atomistic phase field chemomechanical modeling of dislocation-solute-precipitate interaction in Niâ€“Alâ€“Co. Acta Materialia, 2019, 175, 250-261.	7.9	51
93	Beyond Solid Solution Highâ€Entropy Alloys: Tailoring Magnetic Properties via Spinodal Decomposition. Advanced Functional Materials, 2021, 31, 2007668.	14.9	51
94	Substantially enhanced plasticity of bulk metallic glasses by densifying local atomic packing. Nature Communications, 2021, 12, 6582.	12.8	51
95	Mining information from atom probe data. Ultramicroscopy, 2015, 159, 324-337.	1.9	50
96	Investigation of an oxide layer by femtosecond-laser-assisted atom probe tomography. Applied Physics Letters, 2006, 88, 114101.	3.3	49
97	Microstructural degradation of polycrystalline superalloys from oxidized carbides and implications on crack initiation. Scripta Materialia, 2018, 147, 59-63.	5.2	49
98	Correlative Microscopyâ€”Novel Methods and Their Applications to Explore 3D Chemistry and Structure of Nanoscale Lattice Defects: A Case Study in Superalloys. Jom, 2018, 70, 1736-1743.	1.9	49
99	Direct Observation of Local Potassium Variation and Its Correlation to Electronic Inhomogeneity in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mo stretchy="false">(</mml:mo><mml:msub><mml:mi>Ba</mml:mi><mml:mrow><mml:mn>1</mml:mn><mml:mo>â€“</mml:mo><mml:mi>x</mml:mi></mml:mrow></mml:msub><mml:msub><mml:mi>K</mml:mi><mml:mi>x</mml:mi></mml:msub><mml:msub><mml:mi>Fe</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi>As</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mo stretchy="false">)</mml:mo><mml:mi mathvariant="normal">m</mml:mi></mml:math> Physical Review Letters, 2011, 106, 247002.	7.8	48
100	Elemental segregation to antiphase boundaries in a crept CoNi-based single crystal superalloy. Scripta Materialia, 2018, 157, 62-66.	5.2	48
101	Multiscale analysis of grain boundary microstructure in high strength 7xxx Al alloys. Acta Materialia, 2021, 202, 190-210.	7.9	47
102	Multiscale investigations of nanoprecipitate nucleation, growth, and coarsening in annealed low-Cr oxide dispersion strengthened FeCrAl powder. Acta Materialia, 2019, 166, 1-17.	7.9	46
103	Sustainable steel through hydrogen plasma reduction of iron ore: Process, kinetics, microstructure, chemistry. Acta Materialia, 2021, 213, 116971.	7.9	46
104	On the atomic solute diffusional mechanisms during compressive creep deformation of a Co-Al-W-Ta single crystal superalloy. Acta Materialia, 2020, 184, 86-99.	7.9	45
105	Optimisation of mass ranging for atom probe microanalysis and application to the corrosion processes in Zr alloys. Ultramicroscopy, 2011, 111, 480-486.	1.9	44
106	Elemental partitioning and site-occupancy in Î³/Î³â€² forming Co-Ti-Mo and Co-Ti-Cr alloys. Scripta Materialia, 2018, 154, 159-162.	5.2	44
107	Thermoelectric properties of n-type half-Heusler NbCoSn with heavy-element Pt substitution. Journal of Materials Chemistry A, 2020, 8, 14822-14828.	10.3	44
108	Hierarchical nature of hydrogen-based direct reduction of iron oxides. Scripta Materialia, 2022, 213, 114571.	5.2	43

#	Article	IF	Citations
109	Synthesis and stabilization of a new phase regime in a Mo-Si-B based alloy by laser-based additive manufacturing. Acta Materialia, 2018, 151, 31-40.	7.9	42
110	Atomicâ€Scale Mapping of Impurities in Partially Reduced Hollow TiO₂ Nanowires. Angewandte Chemie - International Edition, 2020, 59, 5651-5655.	13.8	42
111	Different Photostability of BiVO₄ in Near-pH-Neutral Electrolytes. ACS Applied Energy Materials, 2020, 3, 9523-9527.	5.1	41
112	Enabling near-atomicâ€“scale analysis of frozen water. Science Advances, 2020, 6, .	10.3	41
113	Nickel segregation on dislocation loops in implanted silicon. Scripta Materialia, 2011, 64, 378-381.	5.2	40
114	A New Approach to the Determination of Concentration Profiles in Atom Probe Tomography. Microscopy and Microanalysis, 2012, 18, 359-364.	0.4	40
115	On the roles of graphene oxide doping for enhanced supercurrent in MgB₂ based superconductors. Nanoscale, 2014, 6, 6166-6172.	5.6	40
116	Atomic scale analysis of grain boundary deuteride growth front in Zircaloy-4. Scripta Materialia, 2018, 156, 42-46.	5.2	40
117	Atom probe tomography of reactor pressure vessel steels: An analysis of data integrity. Ultramicroscopy, 2011, 111, 676-682.	1.9	38
118	Conventional vs harmonic-structured Î²-Ti-25Nb-25Zr alloys: A comparative study of deformation mechanisms. Acta Materialia, 2018, 161, 420-430.	7.9	37
119	Reversion and re-aging of a peak aged Al-Zn-Mg-Cu alloy. Scripta Materialia, 2020, 188, 269-273.	5.2	37
120	High-resolution nanostructural investigation of Zn4Sb3 alloys. Scripta Materialia, 2010, 63, 784-787.	5.2	36
121	Correlative transmission <scp>Kikuchi</scp> diffraction and atom probe tomography study of <scp>Cu(In,Ga)Se₂</scp> grain boundaries. Progress in Photovoltaics: Research and Applications, 2018, 26, 196-204.	8.1	36
122	Could face-centered cubic titanium in cold-rolled commercially-pure titanium only be a Ti-hydride?. Scripta Materialia, 2020, 178, 39-43.	5.2	36
123	Compositional nonuniformities in pulsed laser atom probe tomography analysis of compound semiconductors. Journal of Applied Physics, 2012, 111, 064908.	2.5	35
124	Interfaces and defect composition at the near-atomic scale through atom probe tomography investigations. Journal of Materials Research, 2018, 33, 4018-4030.	2.6	35
125	Investigation of Self-assembled Monolayer by Atom Probe Microscopy. Microscopy and Microanalysis, 2009, 15, 272-273.	0.4	34
126	A Weibull Perspective on the Fracture of Atom Probe Specimens. Microscopy and Microanalysis, 2013, 19, 996-997.	0.4	33

#	Article	IF	Citations
127	Quantification Challenges for Atom Probe Tomography of Hydrogen and Deuterium in Zircaloy-4. Microscopy and Microanalysis, 2019, 25, 481-488.	0.4	33
128	Investigation of solute/interphase interaction during ferrite growth. Acta Materialia, 2017, 124, 536-543.	7.9	32
129	Phase separation in thick InGaN layers â€“ A quantitative, nanoscale study by pulsed laser atom probe tomography. Acta Materialia, 2012, 60, 4277-4285.	7.9	31
130	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.	2.9	31
131	Twins â€“ A weak link in the magnetic hardening of ThMn12-type permanent magnets. Acta Materialia, 2021, 214, 116968.	7.9	31
132	Resolving the Morphology of Niobium Carbonitride Nano-Precipitates in Steel Using Atom Probe Tomography. Microscopy and Microanalysis, 2014, 20, 1100-1110.	0.4	30
133	The Role of Oxidized Carbides on Thermal-Mechanical Performance of Polycrystalline Superalloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 2336-2351.	2.2	30
134	Quasi-Fermi-Level Splitting of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mi>Cu</mml:mi></mml:math> -Poor and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mi>Cu</mml:mi></mml:math> -Rich <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:msub><mml:mrow><mml:mi>Cu</mml:mi><mml:mi>In</mml:mi><mml:mi math	3.8	30
135	In-situ synthesis via laser metal deposition of a lean Cuâ€“3.4Crâ€“0.6Nb (at%) conductive alloy hardened by Cr nano-scale precipitates and by Laves phase micro-particles. Acta Materialia, 2020, 197, 330-340.	7.9	30
136	Reflections on the Analysis of Interfaces and Grain Boundaries by Atom Probe Tomography. Microscopy and Microanalysis, 2020, 26, 247-257.	0.4	30
137	Precipitation formation on â^5 and â^7 grain boundaries in 316L stainless steel and their roles on intergranular corrosion. Acta Materialia, 2021, 210, 116822.	7.9	30
138	CALPHAD-informed phase-field modeling of grain boundary microchemistry and precipitation in Al-Zn-Mg-Cu alloys. Acta Materialia, 2021, 214, 116966.	7.9	30
139	Misorientation-dependent solute enrichment at interfaces and its contribution to defect formation mechanisms during laser additive manufacturing of superalloys. Physical Review Materials, 2019, 3, .	2.4	30
140	Quantitative dopant distributions in GaAs nanowires using atom probe tomography. Ultramicroscopy, 2013, 132, 186-192.	1.9	29
141	Interpreting atom probe data from chromium oxide scales. Ultramicroscopy, 2015, 159, 354-359.	1.9	29
142	Reflections on the Projection of Ions in Atom Probe Tomography. Microscopy and Microanalysis, 2017, 23, 238-246.	0.4	29
143	Segregation-assisted spinodal and transient spinodal phase separation at grain boundaries. Npj Computational Materials, 2020, 6, .	8.7	29
144	On the rhenium segregation at the low angle grain boundary in a single crystal Ni-base superalloy. Scripta Materialia, 2020, 185, 88-93.	5.2	29

#	Article	IF	Citations
145	Enhanced creep performance in a polycrystalline superalloy driven by atomic-scale phase transformation along planar faults. Acta Materialia, 2021, 202, 232-242.	7.9	29
146	Massive interstitial solid solution alloys achieve near-theoretical strength. Nature Communications, 2022, 13, 1102.	12.8	29
147	Atom Probe Microscopy of Self-Assembled Monolayers: Preliminary Results. Langmuir, 2010, 26, 5291-5294.	3.5	28
148	Cluster hardening in Al-3Mg triggered by small Cu additions. Acta Materialia, 2018, 161, 12-20.	7.9	28
149	(Al, Zn)3Zr dispersoids assisted Î·â€² precipitation in anAl-Zn-Mg-Cu-Zr alloy. Materialia, 2020, 10, 100641.	2.7	28
150	Effect of interface dislocations on mass flow during high temperature and low stress creep of single crystal Ni-base superalloys. Scripta Materialia, 2021, 191, 23-28.	5.2	28
151	Grain boundary segregation and its implications regarding the formation of the grain boundary Î± phase in the metastable Î²-Titanium Tiâ€“5Alâ€“5Moâ€“5Vâ€“3Cr alloy. Scripta Materialia, 2022, 207, 114320.	5.2	28
152	Microstructural investigation of Tiâ€“Siâ€“N hard coatings. Scripta Materialia, 2010, 63, 192-195.	5.2	27
153	A new systematic framework for crystallographic analysis of atom probe data. Ultramicroscopy, 2015, 154, 7-14.	1.9	27
154	Atom probe tomography analysis of the reference zircon gj-1: An interlaboratory study. Chemical Geology, 2018, 495, 27-35.	3.3	27
155	Martensite to austenite reversion in a high-Mn steel: Partitioning-dependent two-stage kinetics revealed by atom probe tomography, in-situ magnetic measurements and simulation. Acta Materialia, 2019, 166, 178-191.	7.9	27
156	Control of thermally stable core-shell nano-precipitates in additively manufactured Al-Sc-Zr alloys. Additive Manufacturing, 2020, 32, 100910.	3.0	27
157	Mechanisms of austenite growth during intercritical annealing in medium manganese steels. Scripta Materialia, 2022, 206, 114228.	5.2	27
158	Additive manufacturing of CMSX-4 Ni-base superalloy by selective laser melting: Influence of processing parameters and heat treatment. Additive Manufacturing, 2019, 30, 100874.	3.0	26
159	Quantification of solute deuterium in titanium deuteride by atom probe tomography with both laser pulsing and high-voltage pulsing: influence of the surface electric field. New Journal of Physics, 2019, 21, 053025.	2.9	26
160	Imaging individual solute atoms at crystalline imperfections in metals. New Journal of Physics, 2019, 21, 123020.	2.9	26
161	Direct Imaging of Dopant and Impurity Distributions in 2D MoS₂. Advanced Materials, 2020, 32, e1907235.	21.0	26
162	Nanocrystalline Sm-based 1:12 magnets. Acta Materialia, 2020, 200, 652-658.	7.9	26

#	Article	IF	Citations
163	Plasticity assisted redistribution of solutes leading to topological inversion during creep of superalloys. Scripta Materialia, 2020, 186, 287-292.	5.2	26
164	Cryo-focused ion beam preparation of perovskite based solar cells for atom probe tomography. PLoS ONE, 2020, 15, e0227920.	2.5	26
165	New approach for FIB-preparation of atom probe specimens for aluminum alloys. PLoS ONE, 2020, 15, e0231179.	2.5	26
166	The rise of computational techniques in atom probe microscopy. Current Opinion in Solid State and Materials Science, 2013, 17, 224-235.	11.5	25
167	On the compositional partitioning during phase transformation in a binary ferromagnetic MnAl alloy. Acta Materialia, 2019, 174, 227-236.	7.9	25
168	Interplay of Chemistry and Faceting at Grain Boundaries in a Model Al Alloy. Physical Review Letters, 2020, 124, 106102.	7.8	25
169	Estimating the physical clusterâ€size distribution within materials using atomâ€probe. Microscopy Research and Technique, 2011, 74, 799-803.	2.2	24
170	Accuracy of pulsed laser atom probe tomography for compound semiconductor analysis. Journal of Physics: Conference Series, 2011, 326, 012031.	0.4	24
171	Correlating Atom Probe Tomography with Atomic-Resolved Scanning Transmission Electron Microscopy: Example of Segregation at Silicon Grain Boundaries. Microscopy and Microanalysis, 2017, 23, 291-299.	0.4	24
172	A 2D and 3D nanostructural study of naturally deformed pyrite: assessing the links between trace element mobility and defect structures. Contributions To Mineralogy and Petrology, 2019, 174, 1.	3.1	24
173	Unraveling the Metastability of C_n²⁺ (n = 2â€“4) Clusters. Journal of Physical Chemistry Letters, 2019, 10, 581-588.	4.6	24
174	The hidden structure dependence of the chemical life of dislocations. Science Advances, 2021, 7, .	10.3	24
175	Dopant-segregation to grain boundaries controls electrical conductivity of n-type NbCo(Pt)Sn half-Heusler alloy mediating thermoelectric performance. Acta Materialia, 2021, 217, 117147.	7.9	24
176	A Brief Overview of Atom Probe Tomography Research. Applied Microscopy, 2016, 46, 117-126.	1.4	24
177	Aluminum depletion induced by co-segregation of carbon and boron in a bcc-iron grain boundary. Nature Communications, 2021, 12, 6008.	12.8	24
178	Effect of Nb micro-alloying on austenite nucleation and growth in a medium manganese steel during intercritical annealing. Acta Materialia, 2022, 229, 117786.	7.9	24
179	Optical and thermal processes involved in ultrafast laser pulse interaction with a field emitter. Ultramicroscopy, 2007, 107, 713-719.	1.9	23
180	Interfacial chemistry in an InAs/GaSb superlattice studied by pulsed laser atom probe tomography. Applied Physics Letters, 2012, 100, .	3.3	23

#	Article	IF	Citations
181	Full tip imaging in atom probe tomography. Ultramicroscopy, 2013, 124, 96-101.	1.9	23
182	From solid solution to cluster formation of Fe and Cr in Î± -Zr. Journal of Nuclear Materials, 2015, 467, 320-331.	2.7	23
183	Nano-laminated thin film metallic glass design for outstanding mechanical properties. Scripta Materialia, 2018, 155, 73-77.	5.2	23
184	The effects of carbon on the phase stability and mechanical properties of heat-treated FeNiMnCrAl high entropy alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 748, 59-73.	5.6	23
185	Interpreting nanovoids in atom probe tomography data for accurate local compositional measurements. Nature Communications, 2020, 11, 1022.	12.8	23
186	Nucleation mechanism of hetero-epitaxial recrystallization in wrought nickel-based superalloys. Scripta Materialia, 2021, 191, 7-11.	5.2	23
187	Understanding creep of a single-crystalline Co-Al-W-Ta superalloy by studying the deformation mechanism, segregation tendency and stacking fault energy. Acta Materialia, 2021, 214, 117019.	7.9	23
188	In-process Precipitation During Laser Additive Manufacturing Investigated by Atom Probe Tomography. Microscopy and Microanalysis, 2017, 23, 694-695.	0.4	22
189	Warm ductility enhanced by austenite reversion in ultrafine-grained duplex steel. Acta Materialia, 2018, 148, 344-354.	7.9	22
190	A sustainable ultra-high strength Fe18Mn3Ti maraging steel through controlled solute segregation and Î±-Mn nanoprecipitation. Nature Communications, 2022, 13, 2330.	12.8	22
191	Suppressed hydrogen embrittlement of high-strength Al alloys by Mn-rich intermetallic compound particles. Acta Materialia, 2022, 236, 118110.	7.9	22
192	The effect of Zr on precipitation in oxide dispersion strengthened FeCrAl alloys. Journal of Nuclear Materials, 2020, 533, 152105.	2.7	21
193	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.	2.7	20
194	Insights into microstructural interfaces in aerospace alloys characterised by atom probe tomography. Materials Science and Technology, 2016, 32, 232-241.	1.6	20
195	Impact of local electrostatic field rearrangement on field ionization. Journal Physics D: Applied Physics, 2018, 51, 105601.	2.8	20
196	A near atomic-scale view at the composition of amyloid-beta fibrils by atom probe tomography. Scientific Reports, 2018, 8, 17615.	3.3	20
197	An atom probe tomography and inventory calculation examination of second phase precipitates in neutron irradiated single crystal tungsten. Nuclear Fusion, 2020, 60, 126013.	3.5	20
198	Atom probe analysis of electrode materials for Li-ion batteries: challenges and ways forward. Journal of Materials Chemistry A, 2022, 10, 4926-4935.	10.3	20

#	Article	IF	Citations
199	Restoring the lattice of Si-based atom probe reconstructions for enhanced information on dopant positioning. Ultramicroscopy, 2015, 159, 314-323.	1.9	19
200	Evaluation of Analysis Conditions for Laser-Pulsed Atom Probe Tomography: Example of Cemented Tungsten Carbide. Microscopy and Microanalysis, 2017, 23, 431-442.	0.4	19
201	A nexus between 3D atomistic data hybrids derived from atom probe microscopy and computational materials science: A new analysis of solute clustering in Al-alloys. Scripta Materialia, 2017, 131, 93-97.	5.2	19
202	Cd and Impurity Redistribution at the CdS/CIGS Interface After Annealing of CIGS-Based Solar Cells Resolved by Atom Probe Tomography. IEEE Journal of Photovoltaics, 2017, 7, 313-321.	2.5	19
203	Probing catalytic surfaces by correlative scanning photoemission electron microscopy and atom probe tomography. Journal of Materials Chemistry A, 2020, 8, 388-400.	10.3	19
204	PtIr protective coating system for precision glass molding tools: Design, evaluation and mechanism of degradation. Surface and Coatings Technology, 2020, 385, 125378.	4.8	19
205	Mechanisms of Ti<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si9.svg"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>Al precipitation in hcp <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.svg"><mml:mi>Î±</mml:mi></mml:math>-Ti. Acta Materialia, 2021, 212, 116811.	7.9	19
206	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.	2.9	18
207	Imaging of radiation damage using complementary field ion microscopy and atom probe tomography. Ultramicroscopy, 2015, 159, 387-394.	1.9	18
208	Nanoscale Stoichiometric Analysis of a High-Temperature Superconductor by Atom Probe Tomography. Microscopy and Microanalysis, 2017, 23, 414-424.	0.4	18
209	Atomic diffusion induced degradation in bimetallic layer coated cemented tungsten carbide. Corrosion Science, 2017, 120, 1-13.	6.6	18
210	Elemental segregation to twin boundaries in a MnAl ferromagnetic Heusler alloy. Scripta Materialia, 2018, 155, 144-148.	5.2	18
211	Atomic-scale investigation of hydrogen distribution in a Ti Mo alloy. Scripta Materialia, 2019, 162, 321-325.	5.2	18
212	Controlling the Oxidation of Magnetic and Electrically Conductive Solid-Solution Iron-Rhodium Nanoparticles Synthesized by Laser Ablation in Liquids. Nanomaterials, 2020, 10, 2362.	4.1	18
213	Dynamic strain aging in the intermediate temperature regime of near-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si14.svg"><mml:mi>Î±</mml:mi></mml:math> titanium alloy, IMI 834: Experimental and modeling. Acta Materialia, 2022, 222, 117436.	7.9	18
214	Quantitative analysis of grain boundary diffusion, segregation and precipitation at a sub-nanometer scale. Acta Materialia, 2022, 225, 117522.	7.9	18
215	Tailoring Thermoelectric Transport Properties of Ag-Alloyed PbTe: Effects of Microstructure Evolution. ACS Applied Materials & Interfaces, 2018, 10, 38994-39001.	8.0	17
216	A cracking oxygen story: A new view of stress corrosion cracking in titanium alloys. Acta Materialia, 2022, 227, 117687.	7.9	17

#	Article	IF	Citations
217	Influence of the wavelength on the spatial resolution of pulsed-laser atom probe. Journal of Applied Physics, 2011, 110, .	2.5	16
218	Effect of Nb Addition to Ti-Bearing Super Martensitic Stainless Steel on Control of Austenite Grain Size and Strengthening. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2017, 48, 2460-2471.	2.2	16
219	Automated Atom-By-Atom Three-Dimensional (3D) Reconstruction of Field Ion Microscopy Data. Microscopy and Microanalysis, 2017, 23, 255-268.	0.4	16
220	An Automated Computational Approach for Complete In-Plane Compositional Interface Analysis by Atom Probe Tomography. Microscopy and Microanalysis, 2019, 25, 389-400.	0.4	16
221	Effect of nanoparticle additivation on the microstructure and microhardness of oxide dispersion strengthened steels produced by laser powder bed fusion and directed energy deposition. Procedia CIRP, 2020, 94, 41-45.	1.9	16
222	Properties and influence of microstructure and crystal defects in Fe2VAl modified by laser surface remelting. Scripta Materialia, 2021, 193, 153-157.	5.2	16
223	Multidimensional thermally-induced transformation of nest-structured complex Au-Fe nanoalloys towards equilibrium. Nano Research, 2022, 15, 581-592.	10.4	16
224	Reflections on the Spatial Performance of Atom Probe Tomography in the Analysis of Atomic Neighborhoods. Microscopy and Microanalysis, 2022, 28, 1116-1126.	0.4	16
225	Overcoming challenges in the study of nitrided microalloyed steels using atom probe. Ultramicroscopy, 2012, 112, 32-38.	1.9	15
226	Nearest neighbour diagnostic statistics on the accuracy of APT solute cluster characterisation. Philosophical Magazine, 2013, 93, 975-989.	1.6	15
227	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.	2.7	15
228	Hydriding of titanium: Recent trends and perspectives in advanced characterization and multiscale modeling. Current Opinion in Solid State and Materials Science, 2022, 26, 101020.	11.5	15
229	Machine-learning-based atom probe crystallographic analysis. Ultramicroscopy, 2018, 194, 15-24.	1.9	14
230	Machine-learning-enhanced time-of-flight mass spectrometry analysis. Patterns, 2021, 2, 100192.	5.9	14
231	Hydride growth mechanism in zircaloy-4: Investigation of the partitioning of alloying elements. Materialia, 2021, 15, 101006.	2.7	14
232	On strong-scaling and open-source tools for analyzing atom probe tomography data. Npj Computational Materials, 2021, 7, .	8.7	14
233	Tetragonal fcc-Fe induced by Î³ -carbide precipitates: Atomic scale insights from correlative electron microscopy, atom probe tomography, and density functional theory. Physical Review Materials, 2018, 2, .	2.4	14
234	Sulfur â€“ induced embrittlement in high-purity, polycrystalline copper. Acta Materialia, 2018, 156, 64-75.	7.9	13

#	Article	IF	Citations
235	Electronic structure based design of thin film metallic glasses with superior fracture toughness. Materials and Design, 2020, 186, 108327.	7.0	13
236	Magnetoelectric Tuning of Pinningâ€Type Permanent Magnets through Atomicâ€Scale Engineering of Grain Boundaries. Advanced Materials, 2021, 33, 2006853.	21.0	13
237	On the understanding of the microscopic origin of the properties of diluted magnetic semiconductors by atom probe tomography. Journal of Magnetism and Magnetic Materials, 2009, 321, 935-943.	2.3	12
238	Applications of Spatial Distribution Maps for Advanced Atom Probe Reconstruction and Data Analysis. Microscopy and Microanalysis, 2009, 15, 246-247.	0.4	12
239	On the Multiple Event Detection in Atom Probe Tomography. Microscopy and Microanalysis, 2017, 23, 618-619.	0.4	12
240	Carbon partitioning and microstructure evolution during tempering of an Fe-Ni-C steel. Scripta Materialia, 2019, 172, 38-42.	5.2	12
241	Nanoglassâ€“Nanocrystal Compositeâ€”a Novel Material Class for Enhanced Strengthâ€“Plasticity Synergy. Small, 2020, 16, e2004400.	10.0	12
242	The effect of solute segregation to deformation twin boundaries on the electrical resistivity of a single-phase superalloy. Scripta Materialia, 2020, 186, 208-212.	5.2	12
243	Effect of Cd diffusion on the electrical properties of the Cu(In,Ga)Se2 thin-film solar cell. Solar Energy Materials and Solar Cells, 2021, 224, 110989.	6.2	12
244	Understanding Alkali Contamination in Colloidal Nanomaterials to Unlock Grain Boundary Impurity Engineering. Journal of the American Chemical Society, 2022, 144, 987-994.	13.7	12
245	Controlled Doping of Electrocatalysts through Engineering Impurities. Advanced Materials, 2022, 34, e2203030.	21.0	12
246	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.	3.5	11
247	Stability of a model Fe-14Cr nanostructured ferritic alloy after long-term thermal creep. Scripta Materialia, 2019, 170, 134-139.	5.2	11
248	3D nanostructural characterisation of grain boundaries in atom probe data utilising machine learning methods. PLoS ONE, 2019, 14, e0225041.	2.5	11
249	Extensive nanoprecipitate morphology transformation in a nanostructured ferritic alloy due to extreme thermomechanical processing. Acta Materialia, 2020, 200, 922-931.	7.9	11
250	Intermixing of Fe and Cu on the atomic scale by high-pressure torsion as revealed by DC- and AC-SQUID susceptometry and atom probe tomography. Acta Materialia, 2020, 196, 210-219.	7.9	11
251	On the chemistry of grain boundaries in CuInS2 films. Nano Energy, 2020, 76, 105081.	16.0	11
252	High diffusivity pathways govern massively enhanced oxidation during tribological sliding. Acta Materialia, 2021, 221, 117353.	7.9	11

#	Article	IF	Citations
253	Complementarity of Atom Probe, Small Angle Scattering and Differential Scanning Calorimetry for the Study of Precipitation in Aluminium Alloys. Materials Science Forum, 0, 794-796, 926-932.	0.3	10
254	Advanced data mining in field ion microscopy. Materials Characterization, 2018, 146, 307-318.	4.4	10
255	Fluid inclusion induced hardening: nanoscale evidence from naturally deformed pyrite. Contributions To Mineralogy and Petrology, 2021, 176, 1.	3.1	10
256	3D sub-nanometer analysis of glucose in an aqueous solution by cryo-atom probe tomography. Scientific Reports, 2021, 11, 11607.	3.3	10
257	Origins of the hydrogen signal in atom probe tomography: case studies of alkali and noble metals. New Journal of Physics, 2022, 24, 013008.	2.9	10
258	The effect of hydrogen on the multiscale mechanical behaviour of a La(Fe,Mn,Si)13-based magnetocaloric material. Journal of Alloys and Compounds, 2022, 906, 164274.	5.5	10
259	Atom probe microscopy characterization of as quenched Zrâ€“0.8wt% Fe and Zrâ€“0.15wt% Cr binary alloys. Materials Letters, 2013, 91, 63-66.	2.6	9
260	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.	1.2	9
261	Effects of Carbon Variation on Microstructure Evolution in Weld Heat-Affected Zone of Nb-Ti Microalloyed Steels. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 4824-4837.	2.2	9
262	Microstructural evaluation of a Fe-12Cr nanostructured ferritic alloy designed for impurity sequestration. Journal of Nuclear Materials, 2019, 522, 111-122.	2.7	9
263	Chemical segregation and precipitation at anti-phase boundaries in thermoelectric Heusler-Fe2VAl. Scripta Materialia, 2020, 186, 370-374.	5.2	9
264	Formation of a 2D Meta-stable Oxide by Differential Oxidation of AgCu Alloys. ACS Applied Materials & Interfaces, 2020, 12, 23595-23605.	8.0	9
265	A model to predict image formation in the three-dimensional field ion microscope. Computer Physics Communications, 2021, 260, 107317.	7.5	9
266	A model to unravel the beneficial contributions of trace Cu in wrought Alâ€“Mg alloys. Acta Materialia, 2021, 208, 116734.	7.9	9
267	Revealing in-plane grain boundary composition features through machine learning from atom probe tomography data. Acta Materialia, 2022, 226, 117633.	7.9	9
268	Tomographic Reconstruction in Atom Probe Microscopy: Past, Present.Â.Â. Future?. Microscopy and Microanalysis, 2009, 15, 10-11.	0.4	8
269	Analysis of nanoscale fluid inclusions in geomaterials by atom probe tomography: Experiments and numerical simulations. Ultramicroscopy, 2020, 218, 113092.	1.9	8
270	Status and Direction of Atom Probe Analysis of Frozen Liquids. Microscopy and Microanalysis, 2022, 28, 1150-1167.	0.4	8

#	Article	IF	Citations
271	Light, strong and cost effective: Martensitic steels based on the Fe â€“ Al â€“ C system. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 762, 138088.	5.6	7
272	Building a Library of Simulated Atom Probe Data for Different Crystal Structures and Tip Orientations Using TAPSim. Microscopy and Microanalysis, 2019, 25, 320-330.	0.4	7
273	Nanoscale compositional fluctuations enabled by dynamic strain-induced austenite reversion in a Mn-rich duplex steel. Scripta Materialia, 2020, 181, 101-107.	5.2	7
274	Revealing atomic-scale vacancy-solute interaction in nickel. Scripta Materialia, 2021, 203, 114036.	5.2	7
275	Analysis Techniques for Atom Probe Tomography. Springer Series in Materials Science, 2012, , 213-297.	0.6	7
276	Microstructure manipulation by laser-surface remelting of a full-Heusler compound to enhance thermoelectric properties. Acta Materialia, 2022, 223, 117501.	7.9	7
277	Laser-equipped gas reaction chamber for probing environmentally sensitive materials at near atomic scale. PLoS ONE, 2022, 17, e0262543.	2.5	7
278	Calibration of Atom Probe Tomography Reconstructions Through Correlation with Electron Micrographs. Microscopy and Microanalysis, 2019, 25, 301-308.	0.4	6
279	Dynamic Effects in Voltage Pulsed Atom Probe. Microscopy and Microanalysis, 2020, 26, 1133-1146.	0.4	6
280	Spinodal decomposition in alkali feldspar studied by atom probe tomography. Physics and Chemistry of Minerals, 2020, 47, 30.	0.8	6
281	Eutectoid growth of nanoscale amorphous Fe-Si nitride upon nitriding. Acta Materialia, 2021, 209, 116774.	7.9	6
282	Correlating advanced microscopies reveals atomic-scale mechanisms limiting lithium-ion battery lifetime. Nature Communications, 2021, 12, 3740.	12.8	6
283	Specimen Preparation. Springer Series in Materials Science, 2012, , 71-110.	0.6	6
284	Grain boundary segregation, phase formation, and their influence on the coercivity of rapidly solidified SmFe11Ti hard magnetic alloys. Physical Review Materials, 2020, 4, .	2.4	6
285	Measuring oxygen solubility in Ni grains and boundaries after oxidation using atom probe tomography. Scripta Materialia, 2022, 210, 114411.	5.2	6
286	Hydrogen and deuterium charging of lifted-out specimens for atom probe tomography. Open Research Europe, 0, 1, 122.	2.0	6
287	Bubbles and atom clusters in rock melts: A chicken and egg problem. Journal of Volcanology and Geothermal Research, 2022, 428, 107574.	2.1	6
288	Ultrafast Laser Assisted Field Evaporation and Atom Probe Tomography Applications. Journal of Physics: Conference Series, 2007, 59, 132-135.	0.4	5

#	Article	IF	Citations
289	Light Output Improvement of Oxide-Textured InGaN-Based Light-Emitting Diodes by Bias-Assisted Photoelectrochemical Oxidation With Imprint Technique. IEEE Photonics Technology Letters, 2009, 21, 718-720.	2.5	5
290	Promoting Standards in Quantitative Atom Probe Tomography Analysis. Microscopy and Microanalysis, 2009, 15, 260-261.	0.4	5
291	Challenges Associated with the Characterisation of Nanocrystalline Materials Using Atom Probe Tomography. Materials Science Forum, 2010, 654-656, 2366-2369.	0.3	5
292	Spatial decomposition of molecular ions within 3D atom probe reconstructions. Ultramicroscopy, 2013, 132, 92-99.	1.9	5
293	Influence of experimental parameters on the composition of precipitates in metallic alloys. Ultramicroscopy, 2013, 132, 199-204.	1.9	5
294	High Fidelity Reconstruction of Experimental Field Ion Microscopy Data by Atomic Relaxation Simulations. Microscopy and Microanalysis, 2017, 23, 642-643.	0.4	5
295	Three-Dimensional Atomically Resolved Analytical Imaging with a Field Ion Microscope. Microscopy and Microanalysis, 2022, 28, 1264-1279.	0.4	5
296	Variable chemical decoration of extended defects in Cu-poor <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">C</mml:mi><mml:msub><mml:mi mathvariant="normal">u</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mi>ZnSnS</mml:mi><mml:msub><mml:mi mathvariant="normal">e</mml:mi><mml:mn>4</mml:mn></mml:msub></mml:mrow></mml:math> thin films. Physical Review Materials, 2019, 3, .	2.4	5
297	A Liquid Metal Encapsulation for Analyzing Porous Nanomaterials by Atom Probe Tomography. Microscopy and Microanalysis, 2022, 28, 1198-1206.	0.4	5
298	Interface characteristics in an <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Î±</mml:mi><mml:mo>+</mml:mo><mml:mi>Î²</mml:mi></mml:mi titanium alloy. Physical Review Materials, 2020, 4, .	2.4	5
299	Grain boundary in NbCo(Pt)Sn half-Heusler compounds: Segregation and solute drag on grain boundary migration. Acta Materialia, 2022, 226, 117604.	7.9	5
300	In-situ synchrotron-based high energy X-ray diffraction study of the deformation mechanism of Î´-hydrides in a commercially pure titanium. Scripta Materialia, 2022, 213, 114608.	5.2	5
301	Improved Atom Probe Methodology for Studying Carbon Redistribution in Low-Carbon High-Ms Lath Martensitic Steels. Microscopy and Microanalysis, 2017, 23, 706-707.	0.4	4
302	Deformation of Borides in Nickel-based Superalloys: a Study of Segregation at Dislocations. Microscopy and Microanalysis, 2019, 25, 2538-2539.	0.4	4
303	Microstructural Evolution in an Fe-10Ni-0.1C Steel During Heat Treatment and High Strain-Rate Deformation. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 5056-5076.	2.2	4
304	Influence of crystalline defects on magnetic nanodomains in a rare-earth-free magnetocrystalline anisotropic alloy. Physical Review Materials, 2021, 5, .	2.4	4
305	Discovery and Implications of Hidden Atomic-Scale Structure in a Metallic Meteorite. Nano Letters, 2021, 21, 8135-8142.	9.1	4
306	Tomographic Reconstruction. Springer Series in Materials Science, 2012, , 157-209.	0.6	4

#	Article	IF	Citations
307	Applications, Technical Challenges, and Recent Implementation of a UHV/Cryogenic Specimen Transfer System for Atom Probe Tomography. Microscopy and Microanalysis, 2017, 23, 622-623.	0.4	3
308	Launching Materialia. Acta Biomaterialia, 2018, 75, 1-2.	8.3	3
309	Partitioning of Solutes at Crystal Defects in Borides After Creep and Annealing in a Polycrystalline Superalloy. Jom, 2021, 73, 2293-2302.	1.9	3
310	From Field Desorption Microscopy to Atom Probe Tomography. Springer Series in Materials Science, 2012, , 29-68.	0.6	3
311	Hydrogen and deuterium charging of site-specific specimen for atom probe tomography. Open Research Europe, 0, 1, 122.	2.0	3
312	Atomicâ€Scale Mapping of Impurities in Partially Reduced Hollow TiO 2 Nanowires. Angewandte Chemie, 2020, 132, 5700-5704.	2.0	3
313	A Lattice-Rectified and Detection Efficiency Compensated APT Reconstruction. Microscopy and Microanalysis, 2011, 17, 722-723.	0.4	2
314	The effect orientation of features in reconstructed atom probe data on the resolution and measured composition of T1 plates in an A2198 aluminium alloy. Ultramicroscopy, 2015, 159, 368-373.	1.9	2
315	Correlative Microscopy Observation (3D EBSD + APT + TEM) on Intergranular Corrosion Behaviors in 316L Stainless Steel. Microscopy and Microanalysis, 2019, 25, 748-749.	0.4	2
316	On Strong Scaling Open Source Tools for Mining Atom Probe Tomography Data. Microscopy and Microanalysis, 2019, 25, 298-299.	0.4	2
317	Analytical Three-Dimensional Field Ion Microscopy of an Amorphous Glass FeBSi. Microscopy and Microanalysis, 2021, , 1-9.	0.4	2
318	Experimental Protocols in Atom Probe Tomography. Springer Series in Materials Science, 2012, , 121-155.	0.6	2
319	Atom Probe Tomography at The University of Sydney. Advances in Materials Research, 2008, , 187-216.	0.2	2
320	Atom Probe Microscopy and Materials Science. Springer Series in Materials Science, 2012, , 299-311.	0.6	2
321	Atomic Structure and Chemical Composition of Planar Fault Structures in Co-Base Superalloys. Minerals, Metals and Materials Series, 2020, , 920-928.	0.4	2
322	The effect of Î³ matrix channel width on the compositional evolution in a multi-component nickel-based superalloy. Scripta Materialia, 2022, 219, 114853.	5.2	2
323	Design of a Wide Angle Laser Assited Tomographic Atom Probe. , 2006, , .		1
324	Alternating current bias-assisted photoenhanced oxidation of n-GaN in dionized water. Optoelectronic and Microelectronic Materials and Devices (COMMAD), Conference on, 2008, , .	0.0	1

#	Article	IF	Citations
325	Atom Probe Characterization of Corroded Alloy 600. Microscopy and Microanalysis, 2013, 19, 1020-1021.	0.4	1
326	Recognizing 60 years of achievements in field emission and atomic scale microscopy. Materials Today, 2016, 19, 182-183.	14.2	1
327	Degradation Mechanism of Molds for Precision Glass Molding. Microscopy and Microanalysis, 2017, 23, 698-699.	0.4	1
328	A Methodology for Investigation of Grain-Boundary Diffusion and Segregation. Microscopy and Microanalysis, 2017, 23, 656-657.	0.4	1
329	Atomistic Simulations of Surface Effects Under High Electric Fields. Microscopy and Microanalysis, 2017, 23, 644-645.	0.4	1
330	Correlative Transmission EBSD-APT Analysis of Grain Boundaries in Cu(In,Ga)Se₂ and Cu₂ZnSnSe₄ Based Thin-film Solar Cells. Microscopy and Microanalysis, 2017, 23, 672-673.	0.4	1
331	Combined APT, TEM and SAXS Characterisation of Nanometre-Scale Precipitates in Titanium Alloys. Microscopy and Microanalysis, 2019, 25, 2516-2517.	0.4	1
332	An Integrated Workflow To Investigate Electrocatalytic Surfaces By Correlative X-ray Photoemission Spectroscopy, Scanning Photoemission Electron Microscopy and Atom Probe Tomography. Microscopy and Microanalysis, 2019, 25, 306-307.	0.4	1
333	Hough Transform Based Accurate Composition Extractions From Correlation Histograms in Atom Probe Tomography. Microscopy and Microanalysis, 2019, 25, 324-325.	0.4	1
334	Direct Observation of Hydrogen in Cold-Drawn Pearlitic Steel Wires Using Cryogenic Atom Probe Tomography. Microscopy and Microanalysis, 2019, 25, 2522-2523.	0.4	1
335	Field Ion Microscopy. Springer Series in Materials Science, 2012, , 9-28.	0.6	1
336	The role of Î² pockets resulting from Fe impurities in hydride formation in titanium. Scripta Materialia, 2022, 213, 114640.	5.2	1
337	Tip-field-enhancement characterisation by field ion microscopy. , 0, , .		0
338	Evidence of Field Evaporation Assisted by Nonlinear Optical Rectification Induced by Ultra Fast Laser. , 2006, , .		0
339	First steps in ultrafast laser assisted atom probe tomography. , 2006, , .		0
340	Laser Atom Probe Tomography: some applications. , 2006, , .		0
341	Bringing Standardized Processes to Atom-Probe Tomography - Part 1: Establishing Standardized Terminology. Microscopy and Microanalysis, 2011, 17, 858-859.	0.4	0
342	Quantification of the zinc dopant concentration in GaAs nanowires. , 2012, , .		0

#	Article	IF	Citations
343	Simulation-Enhanced Atom Probe for Complete 3D Atomistic Imaging. Microscopy and Microanalysis, 2013, 19, 998-999.	0.4	0
344	Paths to Open Access: An update from Acta Materialia, Inc.. Acta Biomaterialia, 2017, 60, 1-2.	8.3	0
345	Reversion to Ultrafine-Grained Austenite in a Medium-Mn AHSS. Microscopy and Microanalysis, 2018, 24, 2228-2229.	0.4	0
346	Quantification of Solute Deuterium in Titanium Deuteride by Atom Probe Tomography with Both Laser Pulsing and High-Voltage Pulsing: Influence of the Global and Local Surface Electric Field. Microscopy and Microanalysis, 2019, 25, 2512-2513.	0.4	0
347	New Applications to Atom Probe Tomography: Insights on Trace Element Diffusion in Naturally Deformed Minerals. Microscopy and Microanalysis, 2019, 25, 2498-2499.	0.4	0
348	Application of Atom Probe Tomography to Complex Microstructures of Laser Additively Manufactured Samples. Microscopy and Microanalysis, 2019, 25, 2514-2515.	0.4	0
349	Hydride Growth Mechanism in Zircaloy-4: Investigation of the Partitioning of Alloying Elements. Microscopy and Microanalysis, 2019, 25, 2506-2507.	0.4	0
350	An Atomic Renaissance For Pulsed Field Ion Microscopy. Microscopy and Microanalysis, 2019, 25, 304-305.	0.4	0
351	Application of SIMS and APT to Understand Scale Dependent U-Pb Isotope Behavior in Zircon. Microscopy and Microanalysis, 2020, 26, 2994-2995.	0.4	0
352	Elemental Sub-Lattice Occupation and Microstructural Evolution in Î³/Î³â€² Coâ€“12Tiâ€“4Moâ€“Cr Alloys. Microscopy and Microanalysis, 2021, , 1-5.	0.4	0
353	Open and strong-scaling tools for atom-probe crystallography: high-throughput methods for indexing crystal structure and orientation. Journal of Applied Crystallography, 2021, 54, 1490-1508.	4.5	0
354	Grain boundary segregation and precipitation in an Al-Zn-Mg-Cu alloy. MATEC Web of Conferences, 2020, 326, 01004.	0.2	0
355	Tuning Fundamental Properties of Ir-Based Materials to Enhance Their Electrocatalytic Performance in the Oxygen Evolution Reaction. ECS Meeting Abstracts, 2020, MA2020-01, 1557-1557.	0.0	0
356	Atomic-Scale View into the Degradation of Ir-Ru Alloys during Anodic Oxygen Evolution. ECS Meeting Abstracts, 2020, MA2020-01, 1520-1520.	0.0	0
357	Prospects of Making Nanoporous Ruthenium from Transition Metal-Ru Alloys. ECS Meeting Abstracts, 2020, MA2020-01, 2713-2713.	0.0	0
358	New Frontiers in Electrocatalyst Characterization â€“ Three Dimensional Atomic-Scale Insights By Atom Probe Tomography. ECS Meeting Abstracts, 2020, MA2020-01, 2561-2561.	0.0	0
359	(Invited) From Atomic-Scale Understanding to Design of Advanced Electrocatalyst Materials. ECS Meeting Abstracts, 2020, MA2020-02, 3154-3154.	0.0	0
360	Cryo-focused ion beam preparation of perovskite based solar cells for atom probe tomography. , 2020, 15, e0227920.		0

#	Article	IF	Citations
361	Cryo-focused ion beam preparation of perovskite based solar cells for atom probe tomography. , 2020, 15, e0227920.		0
362	Cryo-focused ion beam preparation of perovskite based solar cells for atom probe tomography. , 2020, 15, e0227920.		0
363	Cryo-focused ion beam preparation of perovskite based solar cells for atom probe tomography. , 2020, 15, e0227920.		0
364	New approach for FIB-preparation of atom probe specimens for aluminum alloys. , 2020, 15, e0231179.		0
365	New approach for FIB-preparation of atom probe specimens for aluminum alloys. , 2020, 15, e0231179.		0
366	New approach for FIB-preparation of atom probe specimens for aluminum alloys. , 2020, 15, e0231179.		0
367	New approach for FIB-preparation of atom probe specimens for aluminum alloys. , 2020, 15, e0231179.		0
368	New approach for FIB-preparation of atom probe specimens for aluminum alloys. , 2020, 15, e0231179.		0
369	New approach for FIB-preparation of atom probe specimens for aluminum alloys. , 2020, 15, e0231179.		0