Baptiste Gault

List of Publications by Year
in descending order

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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	Multidimensional thermally-induced transformation of nest-structured complex Au-Fe nanoalloys towards equilibrium. Nano Research, 2022, 15, 581-592.	10.4	16
2	Three-Dimensional Atomically Resolved Analytical Imaging with a Field Ion Microscope. Microscopy and Microanalysis, 2022, 28, 1264-1279.	0.4	5
3	Mechanisms of austenite growth during intercritical annealing in medium manganese steels. Scripta Materialia, 2022, 206, 114228.	5.2	27
4	A Liquid Metal Encapsulation for Analyzing Porous Nanomaterials by Atom Probe Tomography. Microscopy and Microanalysis, 2022, 28, 1198-1206.	0.4	5
5	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
6	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
7	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
8	Microstructure manipulation by laser-surface remelting of a full-Heusler compound to enhance thermoelectric properties. Acta Materialia, 2022, 223, 117501.	7.9	7
9	Quantitative analysis of grain boundary diffusion, segregation and precipitation at a sub-nanometer scale. Acta Materialia, 2022, 225, 117522.	7.9	18
10	Measuring oxygen solubility in Ni grains and boundaries after oxidation using atom probe tomography. Scripta Materialia, 2022, 210, 114411.	5.2	6
11	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
12	Revealing in-plane grain boundary composition features through machine learning from atom probe tomography data. Acta Materialia, 2022, 226, 117633.	7.9	9
13	Status and Direction of Atom Probe Analysis of Frozen Liquids. Microscopy and Microanalysis, 2022, 28, 1150-1167.	0.4	8
14	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
15	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
16	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
17	Hierarchical nature of hydrogen-based direct reduction of iron oxides. Scripta Materialia, 2022, 213, 114571.	5.2	43
18	A cracking oxygen story: A new view of stress corrosion cracking in titanium alloys. Acta Materialia, 2022, 227, 117687.	7.9	17

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19	Laser-equipped gas reaction chamber for probing environmentally sensitive materials at near atomic scale. PLoS ONE, 2022, 17, e0262543.	2.5	7
20	Hydrogen trapping and embrittlement in high-strength Al alloys. Nature, 2022, 602, 437-441.	27.8	109
21	Massive interstitial solid solution alloys achieve near-theoretical strength. Nature Communications, 2022, 13, 1102.	12.8	29
22	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
23	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
24	The role of Î² pockets resulting from Fe impurities in hydride formation in titanium. Scripta Materialia, 2022, 213, 114640.	5.2	1
25	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
26	A sustainable ultra-high strength Fe18Mn3Ti maraging steel through controlled solute segregation and Î±-Mn nanoprecipitation. Nature Communications, 2022, 13, 2330.	12.8	22
27	Bubbles and atom clusters in rock melts: A chicken and egg problem. Journal of Volcanology and Geothermal Research, 2022, 428, 107574.	2.1	6
28	Controlled Doping of Electrocatalysts through Engineering Impurities. Advanced Materials, 2022, 34, e2203030.	21.0	12
29	Suppressed hydrogen embrittlement of high-strength Al alloys by Mn-rich intermetallic compound particles. Acta Materialia, 2022, 236, 118110.	7.9	22
30	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
31	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
32	A model to predict image formation in the three-dimensional field ion microscope. Computer Physics Communications, 2021, 260, 107317.	7.5	9
33	Beyond Solid Solution Highâ€Entropy Alloys: Tailoring Magnetic Properties via Spinodal Decomposition. Advanced Functional Materials, 2021, 31, 2007668.	14.9	51
34	Carbon redistribution in quenched and tempered lath martensite. Acta Materialia, 2021, 205, 116521.	7.9	60
35	Properties and influence of microstructure and crystal defects in Fe2VAl modified by laser surface remelting. Scripta Materialia, 2021, 193, 153-157.	5.2	16
36	Nucleation mechanism of hetero-epitaxial recrystallization in wrought nickel-based superalloys. Scripta Materialia, 2021, 191, 7-11.	5.2	23

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37	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
38	Multiscale analysis of grain boundary microstructure in high strength 7xxx Al alloys. Acta Materialia, 2021, 202, 190-210.	7.9	47
39	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
40	Machine-learning-enhanced time-of-flight mass spectrometry analysis. Patterns, 2021, 2, 100192.	5.9	14
41	Fluid inclusion induced hardening: nanoscale evidence from naturally deformed pyrite. Contributions To Mineralogy and Petrology, 2021, 176, 1.	3.1	10
42	Hydride growth mechanism in zircaloy-4: Investigation of the partitioning of alloying elements. Materialia, 2021, 15, 101006.	2.7	14
43	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
44	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
45	The hidden structure dependence of the chemical life of dislocations. Science Advances, 2021, 7, .	10.3	24
46	A model to unravel the beneficial contributions of trace Cu in wrought Alâ€“Mg alloys. Acta Materialia, 2021, 208, 116734.	7.9	9
47	Eutectoid growth of nanoscale amorphous Fe-Si nitride upon nitriding. Acta Materialia, 2021, 209, 116774.	7.9	6
48	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
49	Nbâ€Mediated Grain Growth and Grainâ€Boundary Engineering in Mg₃Sb₂â€Based Thermoelectric Materials. Advanced Functional Materials, 2021, 31, 2100258.	14.9	53
50	Influence of crystalline defects on magnetic nanodomains in a rare-earth-free magnetocrystalline anisotropic alloy. Physical Review Materials, 2021, 5, .	2.4	4
51	3D sub-nanometer analysis of glucose in an aqueous solution by cryo-atom probe tomography. Scientific Reports, 2021, 11, 11607.	3.3	10
52	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
53	Correlating advanced microscopies reveals atomic-scale mechanisms limiting lithium-ion battery lifetime. Nature Communications, 2021, 12, 3740.	12.8	6
54	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

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55	Partitioning of Solutes at Crystal Defects in Borides After Creep and Annealing in a Polycrystalline Superalloy. Jom, 2021, 73, 2293-2302.	1.9	3
56	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
57	Sustainable steel through hydrogen plasma reduction of iron ore: Process, kinetics, microstructure, chemistry. Acta Materialia, 2021, 213, 116971.	7.9	46
58	Atom probe tomography. Nature Reviews Methods Primers, 2021, 1, .	21.2	131
59	Chemical heterogeneity enhances hydrogen resistance in high-strength steels. Nature Materials, 2021, 20, 1629-1634.	27.5	83
60	Twins â€“ A weak link in the magnetic hardening of ThMn12-type permanent magnets. Acta Materialia, 2021, 214, 116968.	7.9	31
61	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
62	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
63	Analytical Three-Dimensional Field Ion Microscopy of an Amorphous Glass FeBSi. Microscopy and Microanalysis, 2021, , 1-9.	0.4	2
64	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
65	High diffusivity pathways govern massively enhanced oxidation during tribological sliding. Acta Materialia, 2021, 221, 117353.	7.9	11
66	Reactive wear protection through strong and deformable oxide nanocomposite surfaces. Nature Communications, 2021, 12, 5518.	12.8	70
67	Discovery and Implications of Hidden Atomic-Scale Structure in a Metallic Meteorite. Nano Letters, 2021, 21, 8135-8142.	9.1	4
68	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
69	Revealing atomic-scale vacancy-solute interaction in nickel. Scripta Materialia, 2021, 203, 114036.	5.2	7
70	On strong-scaling and open-source tools for analyzing atom probe tomography data. Npj Computational Materials, 2021, 7, .	8.7	14
71	Magnetoelectric Tuning of Pinningâ€Type Permanent Magnets through Atomicâ€Scale Engineering of Grain Boundaries. Advanced Materials, 2021, 33, 2006853.	21.0	13
72	Aluminum depletion induced by co-segregation of carbon and boron in a bcc-iron grain boundary. Nature Communications, 2021, 12, 6008.	12.8	24

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73	Substantially enhanced plasticity of bulk metallic glasses by densifying local atomic packing. Nature Communications, 2021, 12, 6582.	12.8	51
74	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
75	Electronic structure based design of thin film metallic glasses with superior fracture toughness. Materials and Design, 2020, 186, 108327.	7.0	13
76	Control of thermally stable core-shell nano-precipitates in additively manufactured Al-Sc-Zr alloys. Additive Manufacturing, 2020, 32, 100910.	3.0	27
77	Direct Imaging of Dopant and Impurity Distributions in 2D MoS₂. Advanced Materials, 2020, 32, e1907235.	21.0	26
78	Atomicâ€Scale Mapping of Impurities in Partially Reduced Hollow TiO₂ Nanowires. Angewandte Chemie - International Edition, 2020, 59, 5651-5655.	13.8	42
79	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
80	Revealing nano-chemistry at lattice defects in thermoelectric materials using atom probe tomography. Materials Today, 2020, 32, 260-274.	14.2	73
81	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
82	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
83	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
84	Nanocrystalline Sm-based 1:12 magnets. Acta Materialia, 2020, 200, 652-658.	7.9	26
85	Extensive nanoprecipitate morphology transformation in a nanostructured ferritic alloy due to extreme thermomechanical processing. Acta Materialia, 2020, 200, 922-931.	7.9	11
86	Different Photostability of BiVO₄ in Near-pH-Neutral Electrolytes. ACS Applied Energy Materials, 2020, 3, 9523-9527.	5.1	41
87	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
88	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
89	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
90	Crystalâ€“Glass Highâ€Entropy Nanocomposites with Near Theoretical Compressive Strength and Large Deformability. Advanced Materials, 2020, 32, e2002619.	21.0	66

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91	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
92	Dynamic Effects in Voltage Pulsed Atom Probe. Microscopy and Microanalysis, 2020, 26, 1133-1146.	0.4	6
93	Analysis of nanoscale fluid inclusions in geomaterials by atom probe tomography: Experiments and numerical simulations. Ultramicroscopy, 2020, 218, 113092.	1.9	8
94	Reversion and re-aging of a peak aged Al-Zn-Mg-Cu alloy. Scripta Materialia, 2020, 188, 269-273.	5.2	37
95	Nanoglassâ€“Nanocrystal Compositeâ€”a Novel Material Class for Enhanced Strengthâ€“Plasticity Synergy. Small, 2020, 16, e2004400.	10.0	12
96	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
97	Segregation-assisted spinodal and transient spinodal phase separation at grain boundaries. Npj Computational Materials, 2020, 6, .	8.7	29
98	Enabling near-atomicâ€“scale analysis of frozen water. Science Advances, 2020, 6, .	10.3	41
99	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
100	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
101	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
102	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
103	High-strength Damascus steel by additive manufacturing. Nature, 2020, 582, 515-519.	27.8	260
104	Lattice Oxygen Exchange in Rutile IrO₂ during the Oxygen Evolution Reaction. Journal of Physical Chemistry Letters, 2020, 11, 5008-5014.	4.6	81
105	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
106	Plasticity assisted redistribution of solutes leading to topological inversion during creep of superalloys. Scripta Materialia, 2020, 186, 287-292.	5.2	26
107	Snoek-type damping performance in strong and ductile high-entropy alloys. Science Advances, 2020, 6, eaba7802.	10.3	56
108	Chemical segregation and precipitation at anti-phase boundaries in thermoelectric Heusler-Fe2VAl. Scripta Materialia, 2020, 186, 370-374.	5.2	9

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109	Reflections on the Analysis of Interfaces and Grain Boundaries by Atom Probe Tomography. Microscopy and Microanalysis, 2020, 26, 247-257.	0.4	30
110	Interplay of Chemistry and Faceting at Grain Boundaries in a Model Al Alloy. Physical Review Letters, 2020, 124, 106102.	7.8	25
111	The effect of Zr on precipitation in oxide dispersion strengthened FeCrAl alloys. Journal of Nuclear Materials, 2020, 533, 152105.	2.7	21
112	Spinodal decomposition in alkali feldspar studied by atom probe tomography. Physics and Chemistry of Minerals, 2020, 47, 30.	0.8	6
113	On the chemistry of grain boundaries in CuInS2 films. Nano Energy, 2020, 76, 105081.	16.0	11
114	Solute hydrogen and deuterium observed at the near atomic scale in high-strength steel. Acta Materialia, 2020, 188, 108-120.	7.9	64
115	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
116	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
117	(Al, Zn)3Zr dispersoids assisted Î·â€² precipitation in anAl-Zn-Mg-Cu-Zr alloy. Materialia, 2020, 10, 100641.	2.7	28
118	Interpreting nanovoids in atom probe tomography data for accurate local compositional measurements. Nature Communications, 2020, 11, 1022.	12.8	23
119	Metrology of small particles and solute clusters by atom probe tomography. Acta Materialia, 2020, 188, 406-415.	7.9	83
120	Cryo-focused ion beam preparation of perovskite based solar cells for atom probe tomography. PLoS ONE, 2020, 15, e0227920.	2.5	26
121	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
122	Unveiling the Re effect in Ni-based single crystal superalloys. Nature Communications, 2020, 11, 389.	12.8	101
123	New approach for FIB-preparation of atom probe specimens for aluminum alloys. PLoS ONE, 2020, 15, e0231179.	2.5	26
124	Formation of a 2D Meta-stable Oxide by Differential Oxidation of AgCu Alloys. ACS Applied Materials & Interfaces, 2020, 12, 23595-23605.	8.0	9
125	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
126	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

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127	Atomic Structure and Chemical Composition of Planar Fault Structures in Co-Base Superalloys. Minerals, Metals and Materials Series, 2020, , 920-928.	0.4	2
128	Grain boundary segregation and precipitation in an Al-Zn-Mg-Cu alloy. MATEC Web of Conferences, 2020, 326, 01004.	0.2	0
129	Atomicâ€Scale Mapping of Impurities in Partially Reduced Hollow TiO 2 Nanowires. Angewandte Chemie, 2020, 132, 5700-5704.	2.0	3
130	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
131	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
132	Prospects of Making Nanoporous Ruthenium from Transition Metal-Ru Alloys. ECS Meeting Abstracts, 2020, MA2020-01, 2713-2713.	0.0	0
133	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
134	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> titanium alloy. Physical Review Materials, 2020, 4, .	2.4	0
135	(Invited) From Atomic-Scale Understanding to Design of Advanced Electrocatalyst Materials. ECS Meeting Abstracts, 2020, MA2020-02, 3154-3154.	0.0	0
136	Cryo-focused ion beam preparation of perovskite based solar cells for atom probe tomography. , 2020, 15, e0227920.		0
137	Cryo-focused ion beam preparation of perovskite based solar cells for atom probe tomography. , 2020, 15, e0227920.		0
138	Cryo-focused ion beam preparation of perovskite based solar cells for atom probe tomography. , 2020, 15, e0227920.		0
139	Cryo-focused ion beam preparation of perovskite based solar cells for atom probe tomography. , 2020, 15, e0227920.		0
140	New approach for FIB-preparation of atom probe specimens for aluminum alloys. , 2020, 15, e0231179.		0
141	New approach for FIB-preparation of atom probe specimens for aluminum alloys. , 2020, 15, e0231179.		0
142	New approach for FIB-preparation of atom probe specimens for aluminum alloys. , 2020, 15, e0231179.		0
143	New approach for FIB-preparation of atom probe specimens for aluminum alloys. , 2020, 15, e0231179.		0
144	New approach for FIB-preparation of atom probe specimens for aluminum alloys. , 2020, 15, e0231179.		0

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145	New approach for FIB-preparation of atom probe specimens for aluminum alloys. , 2020, 15, e0231179.		0
146	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
147	Combined APT, TEM and SAXS Characterisation of Nanometre-Scale Precipitates in Titanium Alloys. Microscopy and Microanalysis, 2019, 25, 2516-2517.	0.4	1
148	Direct atomic insight into the role of dopants in phase-change materials. Nature Communications, 2019, 10, 3525.	12.8	56
149	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
150	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
151	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
152	Deformation of Borides in Nickel-based Superalloys: a Study of Segregation at Dislocations. Microscopy and Microanalysis, 2019, 25, 2538-2539.	0.4	4
153	Carbon partitioning and microstructure evolution during tempering of an Fe-Ni-C steel. Scripta Materialia, 2019, 172, 38-42.	5.2	12
154	Atomic-scale grain boundary engineering to overcome hot-cracking in additively-manufactured superalloys. Acta Materialia, 2019, 177, 209-221.	7.9	165
155	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
156	Atomistic phase field chemomechanical modeling of dislocation-solute-precipitate interaction in Niâ€“Alâ€“Co. Acta Materialia, 2019, 175, 250-261.	7.9	51
157	On Strong Scaling Open Source Tools for Mining Atom Probe Tomography Data. Microscopy and Microanalysis, 2019, 25, 298-299.	0.4	2
158	Application of Atom Probe Tomography to Complex Microstructures of Laser Additively Manufactured Samples. Microscopy and Microanalysis, 2019, 25, 2514-2515.	0.4	0
159	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
160	Hydride Growth Mechanism in Zircaloy-4: Investigation of the Partitioning of Alloying Elements. Microscopy and Microanalysis, 2019, 25, 2506-2507.	0.4	0
161	Hough Transform Based Accurate Composition Extractions From Correlation Histograms in Atom Probe Tomography. Microscopy and Microanalysis, 2019, 25, 324-325.	0.4	1
162	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

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163	An Atomic Renaissance For Pulsed Field Ion Microscopy. Microscopy and Microanalysis, 2019, 25, 304-305.	0.4	0
164	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
165	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
166	On the effect of Re addition on microstructural evolution of a CoNi-based superalloy. Acta Materialia, 2019, 168, 37-51.	7.9	83
167	Unraveling the Metastability of C_n²⁺ (n = 2â€“4) Clusters. Journal of Physical Chemistry Letters, 2019, 10, 581-588.	4.6	24
168	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
169	On the compositional partitioning during phase transformation in a binary ferromagnetic MnAl alloy. Acta Materialia, 2019, 174, 227-236.	7.9	25
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