

Julie Cairney

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235
papers

6,953
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44
h-index

72
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245
ext. papers

8,209
ext. citations

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avg, IF

6.14
L-index

#	Paper	IF	Citations
235	Cu ₂ ZnSnS ₄ solar cells with over 10% power conversion efficiency enabled by heterojunction heat treatment. <i>Nature Energy</i> , 2018 , 3, 764-772	62.3	429
234	Atom Probe Microscopy. <i>Springer Series in Materials Science</i> , 2012 ,	0.9	415
233	Long-chain terminal alcohols through catalytic CO hydrogenation. <i>Journal of the American Chemical Society</i> , 2013 , 135, 7114-7	16.4	144
232	Atom probe crystallography. <i>Materials Today</i> , 2012 , 15, 378-386	21.8	134
231	Characterizing deformed ultrafine-grained and nanocrystalline materials using transmission Kikuchi diffraction in a scanning electron microscope. <i>Acta Materialia</i> , 2014 , 62, 69-80	8.4	125
230	A reproducible method for damage-free site-specific preparation of atom probe tips from interfaces. <i>Microscopy Research and Technique</i> , 2012 , 75, 484-91	2.8	122
229	Microstructural evolution during ageing of AlCuLi _x alloys. <i>Acta Materialia</i> , 2014 , 66, 199-208	8.4	122
228	Observation of hydrogen trapping at dislocations, grain boundaries, and precipitates. <i>Science</i> , 2020 , 367, 171-175	33.3	120
227	New insights into the phase transformations to isothermal β and β -assisted β in near β Ti alloys. <i>Acta Materialia</i> , 2016 , 106, 353-366	8.4	111
226	Transmission Kikuchi diffraction in a scanning electron microscope: A review. <i>Materials Science and Engineering Reports</i> , 2016 , 110, 1-12	30.9	107
225	Deformation-induced trace element redistribution in zircon revealed using atom probe tomography. <i>Nature Communications</i> , 2016 , 7, 10490	17.4	105
224	Observations of grain boundary impurities in nanocrystalline Al and their influence on microstructural stability and mechanical behaviour. <i>Acta Materialia</i> , 2012 , 60, 1038-1047	8.4	105
223	Nanocomposite TiSiN, ZrSiN, TiAlSiN, TiAl ₂ SiN thin film coatings deposited by vacuum arc deposition. <i>Surface and Coatings Technology</i> , 2005 , 200, 2228-2235	4.4	104
222	Dynamic precipitation, segregation and strengthening of an Al-Zn-Mg-Cu alloy (AA7075) processed by high-pressure torsion. <i>Acta Materialia</i> , 2019 , 162, 19-32	8.4	102
221	Effect of ion irradiation on tensile ductility, strength and fictive temperature in metallic glass nanowires. <i>Acta Materialia</i> , 2014 , 74, 165-182	8.4	100
220	Phase Stability of t ² -Zirconia-Based Thermal Barrier Coatings: Mechanistic Insights. <i>Journal of the American Ceramic Society</i> , 2011 , 94, s168-s177	3.8	87
219	On the multiplicity of field evaporation events in atom probe: A new dimension to the analysis of mass spectra. <i>Philosophical Magazine Letters</i> , 2010 , 90, 121-129	1	82

218	Penetration of protective chromia scales by carbon. <i>Scripta Materialia</i> , 2014 , 77, 29-32	5.6	81
217	Atomic-scale compositional mapping reveals Mg-rich amorphous calcium phosphate in human dental enamel. <i>Science Advances</i> , 2016 , 2, e1601145	14.3	76
216	Reducing the macroparticle content of cathodic arc evaporated TiN coatings. <i>Surface and Coatings Technology</i> , 2004 , 183, 283-294	4.4	75
215	Strengthening from Nb-rich clusters in a Nb-microalloyed steel. <i>Scripta Materialia</i> , 2012 , 66, 710-713	5.6	70
214	Increasing the strength of nanocrystalline steels by annealing: Is segregation necessary?. <i>Scripta Materialia</i> , 2015 , 95, 27-30	5.6	68
213	Dynamic reconstruction for atom probe tomography. <i>Ultramicroscopy</i> , 2011 , 111, 1619-24	3.1	67
212	Atom probe specimen fabrication methods using a dual FIB/SEM. <i>Ultramicroscopy</i> , 2007 , 107, 756-60	3.1	65
211	Cd-Free Cu ₂ ZnSnS ₄ solar cell with an efficiency greater than 10% enabled by Al ₂ O ₃ passivation layers. <i>Energy and Environmental Science</i> , 2019 , 12, 2751-2764	35.4	63
210	Techniques for generating 3-D EBSD microstructures by FIB tomography. <i>Materials Characterization</i> , 2007 , 58, 961-967	3.9	63
209	Synthesis and performance evaluation of thin film PPy-PVDF multilayer electroactive polymer actuators. <i>Sensors and Actuators A: Physical</i> , 2011 , 165, 321-328	3.9	62
208	The mechanism of assisted phase formation in near Ti alloys. <i>Scripta Materialia</i> , 2015 , 104, 75-78	5.6	61
207	Optimization of pulsed laser atom probe (PLAP) for the analysis of nanocomposite Ti-Si-N films. <i>Ultramicroscopy</i> , 2010 , 110, 836-43	3.1	59
206	Atom probe crystallography: Atomic-scale 3-D orientation mapping. <i>Scripta Materialia</i> , 2012 , 66, 907-910	5.6	57
205	Degradation of TiN coatings under cyclic loading. <i>Acta Materialia</i> , 2004 , 52, 3229-3237	8.4	57
204	Crystallographic structural analysis in atom probe microscopy via 3D Hough transformation. <i>Ultramicroscopy</i> , 2011 , 111, 458-63	3.1	56
203	Superelasticity and Tunable Thermal Expansion across a Wide Temperature Range. <i>Journal of Materials Science and Technology</i> , 2016 , 32, 705-709	9.1	56
202	Investigating the microstructure and composition of cold gas-dynamic spray (CGDS) Ti powder deposited on Al 6063 substrate. <i>Surface and Coatings Technology</i> , 2010 , 204, 3739-3749	4.4	55
201	Fatigue properties of AlSi10Mg produced by Additive Layer Manufacturing. <i>International Journal of Fatigue</i> , 2019 , 119, 160-172	5	55

200	Deformation mechanisms operating during nanoindentation of TiN coatings on steel substrates. <i>Surface and Coatings Technology</i> , 2005 , 192, 11-18	4.4	51
199	Precipitation and clustering in the early stages of ageing in Inconel 718. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010 , 527, 7770-7774	5.3	50
198	Elemental partitioning of platinum group metal containing Ni-base superalloys using electron microprobe analysis and atom probe tomography. <i>Acta Materialia</i> , 2010 , 58, 1952-1962	8.4	50
197	Three-dimensional investigation of particle-stimulated nucleation in a nickel alloy. <i>Acta Materialia</i> , 2007 , 55, 5157-5167	8.4	50
196	Phase Evolution upon Aging of Air Plasma Sprayed t?-Zirconia Coatings: IIMicrostructure Evolution. <i>Journal of the American Ceramic Society</i> , 2013 , 96, 299-307	3.8	49
195	Atom probe crystallography: characterization of grain boundary orientation relationships in nanocrystalline aluminium. <i>Ultramicroscopy</i> , 2011 , 111, 493-9	3.1	48
194	Mining information from atom probe data. <i>Ultramicroscopy</i> , 2015 , 159 Pt 2, 324-37	3.1	46
193	A quantitative atom probe study of the Nb excess at prior austenite grain boundaries in a Nb microalloyed strip-cast steel. <i>Acta Materialia</i> , 2012 , 60, 5049-5055	8.4	46
192	The evolution of microstructure and mechanical properties of Ti5Al3Mo5V2Cr1Fe during ageing. <i>Journal of Alloys and Compounds</i> , 2015 , 629, 260-273	5.7	45
191	New approaches to nanoparticle sample fabrication for atom probe tomography. <i>Ultramicroscopy</i> , 2015 , 159 Pt 2, 413-9	3.1	44
190	Segregation of B, P, and C in the Ni-Based Superalloy, Inconel 718. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2012 , 43, 2183-2191	2.3	44
189	An automated method of quantifying ferrite microstructures using electron backscatter diffraction (EBSD) data. <i>Ultramicroscopy</i> , 2014 , 137, 40-7	3.1	43
188	The anatomy of grain boundaries: Their structure and atomic-level solute distribution. <i>Scripta Materialia</i> , 2013 , 69, 622-625	5.6	43
187	Tunable Syngas Production through CO Electroreduction on Cobalt-Carbon Composite Electrocatalyst. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 9307-9315	9.5	42
186	Deformation and fracture of TiN and TiAlN coatings on a steel substrate during nanoindentation. <i>Surface and Coatings Technology</i> , 2006 , 200, 3518-3526	4.4	42
185	Shaping the lens of the atom probe: fabrication of site specific, oriented specimens and application to grain boundary analysis. <i>Ultramicroscopy</i> , 2011 , 111, 435-9	3.1	41
184	Correlating Atom Probe Crystallographic Measurements with Transmission Kikuchi Diffraction Data. <i>Microscopy and Microanalysis</i> , 2017 , 23, 279-290	0.5	39
183	Detecting and extracting clusters in atom probe data: a simple, automated method using Voronoi cells. <i>Ultramicroscopy</i> , 2015 , 150, 30-36	3.1	39

182	Fabrication of dies in micro-scale for micro-sheet metal forming. <i>Journal of Materials Processing Technology</i> , 2006 , 177, 639-643	5.3	39
181	The application of focused ion beam technology to the characterization of coatings. <i>Surface and Coatings Technology</i> , 2005 , 198, 165-168	4.4	39
180	A new approach to the determination of concentration profiles in atom probe tomography. <i>Microscopy and Microanalysis</i> , 2012 , 18, 359-64	0.5	38
179	Effect of Nb Microalloying and Hot Rolling on Microstructure and Properties of Ultrathin Cast Strip Steels Produced by the CASTRIPI Process. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2011 , 42, 2199-2206	2.3	37
178	Focused-ion-beam milling: a novel approach to probing the interior of particles used for inhalation aerosols. <i>Pharmaceutical Research</i> , 2007 , 24, 1608-17	4.5	37
177	Redeposition effects in transmission electron microscope specimens of FeAl-WC composites prepared using a focused ion beam. <i>Micron</i> , 2003 , 34, 97-107	2.3	36
176	Isolated copper-tin atomic interfaces tuning electrocatalytic CO conversion. <i>Nature Communications</i> , 2021 , 12, 1449	17.4	36
175	Elastically confined martensitic transformation at the nano-scale in a multifunctional titanium alloy. <i>Acta Materialia</i> , 2017 , 135, 330-339	8.4	35
174	Applying computational geometry techniques for advanced feature analysis in atom probe data. <i>Ultramicroscopy</i> , 2013 , 132, 100-6	3.1	35
173	Atomic-Level Insights into the Edge Active ReS ₂ Ultrathin Nanosheets for High-Efficiency Light-to-Hydrogen Conversion 2020 , 2, 1484-1494		35
172	ZrBi ₂ films fabricated using hybrid cathodic arc and chemical vapour deposition: Structure vs. properties. <i>Surface and Coatings Technology</i> , 2006 , 200, 4213-4219	4.4	34
171	Deformation and fracture of TiBi ₂ nanocomposite films. <i>Thin Solid Films</i> , 2005 , 479, 193-200	2.2	34
170	Effect of tool wear evolution on chip formation during dry machining of Ti-6Al-4V alloy. <i>International Journal of Machine Tools and Manufacture</i> , 2018 , 126, 13-17	9.4	34
169	Effect of coating thickness on the deformation mechanisms in PVD TiN-coated steel. <i>Surface and Coatings Technology</i> , 2010 , 204, 1764-1773	4.4	33
168	Revealing the distribution of the atoms within individual bimetallic catalyst nanoparticles. <i>Angewandte Chemie - International Edition</i> , 2014 , 53, 11190-3	16.4	32
167	Transmission electron microscopy of TiN and TiAlN thin films using specimens prepared by focused ion beam milling. <i>Surface and Coatings Technology</i> , 2004 , 183, 239-246	4.4	32
166	Tracing the coupled atomic shear and shuffle for a cubic to a hexagonal crystal transition. <i>Scripta Materialia</i> , 2017 , 133, 70-74	5.6	31
165	Understanding solid solution strengthening at elevated temperatures in a creep-resistant Mg ₉₂ Ca alloy. <i>Acta Materialia</i> , 2019 , 181, 185-199	8.4	30

164	Factors that affect the properties of additively-manufactured AlSi10Mg: Porosity versus microstructure. <i>Additive Manufacturing</i> , 2019 , 29, 100805	6.1	30
163	The influence of partitioning on the growth of intragranular β in near- β Ti alloys. <i>Journal of Alloys and Compounds</i> , 2015 , 643, 212-222	5.7	30
162	Site-specific specimen preparation for atom probe tomography of grain boundaries. <i>Physica B: Condensed Matter</i> , 2007 , 394, 267-269	2.8	30
161	Phase stability of thermal barrier oxides: A comparative study of Y and Yb additions. <i>International Journal of Materials Research</i> , 2007 , 98, 1177-1187	0.5	30
160	Effect of austenite deformation temperature on Nb clustering and precipitation in microalloyed steel. <i>Scripta Materialia</i> , 2014 , 75, 74-77	5.6	29
159	The effect of pre-existing defects on the strength and deformation behavior of β Fe nanopillars. <i>Acta Materialia</i> , 2013 , 61, 439-452	8.4	29
158	Optimisation of specimen temperature and pulse fraction in atom probe microscopy experiments on a microalloyed steel. <i>Ultramicroscopy</i> , 2011 , 111, 648-51	3.1	29
157	Effect of niobium clustering and precipitation on strength of an NbTi-microalloyed ferritic steel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014 , 607, 226-235	5.3	28
156	Thin-film nanocomposites of diamond-like carbon and titanium oxide; Osteoblast adhesion and surface properties. <i>Diamond and Related Materials</i> , 2010 , 19, 329-335	3.5	28
155	Linking stress-driven microstructural evolution in nanocrystalline aluminium with grain boundary doping of oxygen. <i>Nature Communications</i> , 2016 , 7, 11225	17.4	28
154	The role of β in the precipitation of β in near- β Ti alloys. <i>Scripta Materialia</i> , 2016 , 117, 92-95	5.6	28
153	Atom probe study of chromium oxide spinels formed during intergranular corrosion. <i>Scripta Materialia</i> , 2015 , 99, 1-4	5.6	27
152	Performance of graphene, carbon nanotube, and gold nanoparticle chemiresistor sensors for the detection of petroleum hydrocarbons in water. <i>Journal of Nanoparticle Research</i> , 2014 , 16, 1	2.3	27
151	Deposition of nanocomposite TiN-Si ₃ N ₄ thin films by hybrid cathodic arc and chemical vapor process. <i>Applied Physics A: Materials Science and Processing</i> , 2005 , 81, 151-158	2.6	27
150	Transmission Electron Microscope Specimen Preparation of Metal Matrix Composites Using the Focused Ion Beam Miller. <i>Microscopy and Microanalysis</i> , 2000 , 6, 452-462	0.5	27
149	Interpreting atom probe data from chromium oxide scales. <i>Ultramicroscopy</i> , 2015 , 159 Pt 2, 354-9	3.1	26
148	Crystal structures of orthorhombic, hexagonal, and cubic compounds of the Sm(x)Yb(2-x)TiO ₅ series. <i>Journal of Solid State Chemistry</i> , 2014 , 213, 182-192	3.3	26
147	Effect of electrolyte storage layer on performance of PPy-PVDF-PPy microactuators. <i>Sensors and Actuators B: Chemical</i> , 2011 , 155, 810-816	8.5	26

146	Enhanced photoelectrochemical water-splitting performance with a hierarchical heterostructure: Co ₃ O ₄ nanodots anchored TiO ₂ @P-C ₃ N ₄ core-shell nanorod arrays. <i>Chemical Engineering Journal</i> , 2021 , 404, 126458	14.7	26
145	Atom probe study of impurity segregation at grain boundaries in chromia scales grown in CO ₂ gas. <i>Corrosion Science</i> , 2018 , 132, 125-135	6.8	25
144	Martensitic transformation in an intergranular corrosion area of austenitic stainless steel during thermal cycling. <i>Corrosion Science</i> , 2014 , 85, 1-6	6.8	25
143	Pushing the Limits for Microactuators Based on Electroactive Polymers. <i>Journal of Microelectromechanical Systems</i> , 2012 , 21, 574-585	2.5	25
142	Microstructural investigation of TiSiN hard coatings. <i>Scripta Materialia</i> , 2010 , 63, 192-195	5.6	25
141	Deposition of nanocomposite thin films by a hybrid cathodic arc and chemical vapour technique. <i>Surface and Coatings Technology</i> , 2006 , 201, 4139-4144	4.4	25
140	A new systematic framework for crystallographic analysis of atom probe data. <i>Ultramicroscopy</i> , 2015 , 154, 7-14	3.1	24
139	The rise of computational techniques in atom probe microscopy. <i>Current Opinion in Solid State and Materials Science</i> , 2013 , 17, 224-235	12	24
138	Slurry erosion, sliding wear and corrosion behavior of martensitic stainless steel composites reinforced in-situ with NbC particles. <i>Wear</i> , 2019 , 420-421, 149-162	3.5	24
137	Atom probe tomography. <i>Nature Reviews Methods Primers</i> , 2021 , 1,		24
136	A study on novel AISI 304 stainless steel matrix composites reinforced with (Nb _{0.75} ,Ti _{0.25})C. <i>Wear</i> , 2018 , 398-399, 220-226	3.5	23
135	Three dimensional imaging of deformation modes in TiN-based thin film coatings. <i>Thin Solid Films</i> , 2007 , 515, 3190-3195	2.2	23
134	Characterization of TiN thin films subjected to nanoindentation using focused ion beam milling. <i>Applied Surface Science</i> , 2004 , 237, 627-631	6.7	23
133	Fabrication and characterization of microstructure of stainless steel matrix composites containing up to 25vol% NbC. <i>Materials Characterization</i> , 2016 , 119, 65-74	3.9	23
132	Mapping interfacial excess in atom probe data. <i>Ultramicroscopy</i> , 2015 , 159 Pt 2, 438-44	3.1	22
131	Breaking the icosahedra in boron carbide. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 12012-12016	11.5	22
130	Nucleation driving force for δ -assisted formation of δ and associated δ morphology in δ Ti alloys. <i>Scripta Materialia</i> , 2018 , 155, 149-154	5.6	22
129	Resolving the morphology of niobium carbonitride nano-precipitates in steel using atom probe tomography. <i>Microscopy and Microanalysis</i> , 2014 , 20, 1100-10	0.5	22

128	Preparation of transmission electron microscope specimens from FeAl and WC powders using focused-ion beam milling. <i>Materials Characterization</i> , 2001 , 46, 297-304	3.9	22
127	New frontiers in atom probe tomography: a review of research enabled by cryo and/or vacuum transfer systems. <i>Materials Today Advances</i> , 2020 , 7, 100090-100090	7.4	22
126	Laser-Assisted Atom Probe Tomography of Deformed Minerals: A Zircon Case Study. <i>Microscopy and Microanalysis</i> , 2017 , 23, 404-413	0.5	21
125	Plastic Deformation of Single-Crystal Diamond Nanopillars. <i>Advanced Materials</i> , 2020 , 32, e1906458	24	21
124	Cluster strengthening of Nb-microalloyed ultra-thin cast strip steels produced by the CASTRIPI process. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013 , 568, 88-95	5.3	21
123	Examination of fracture surfaces using focused ion beam milling. <i>Scripta Materialia</i> , 2000 , 42, 473-478	5.6	20
122	Microstructure characterisation and mechanical properties of a functionally-graded NbC/high chromium white cast iron composite. <i>Materials Characterization</i> , 2018 , 136, 196-205	3.9	19
121	Atom probe tomography analysis of the reference zircon gj-1: An interlaboratory study. <i>Chemical Geology</i> , 2018 , 495, 27-35	4.2	18
120	Precipitation of the ϵ phase in an ultrafine grained beta-titanium alloy processed by severe plastic deformation. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014 , 605, 144-150	5.3	18
119	Three-dimensional nanofabrication of polystyrene by focused ion beam. <i>Journal of Microscopy</i> , 2012 , 248, 129-39	1.9	17
118	FeS ₂ bridging function to enhance charge transfer between MoS ₂ and g-C ₃ N ₄ for efficient hydrogen evolution reaction. <i>Chemical Engineering Journal</i> , 2021 , 421, 127804	14.7	17
117	High Efficiency Cu ₂ ZnSn(S,Se) ₄ Solar Cells with Shallow LiZn Acceptor Defects Enabled by Solution-Based Li Post-Deposition Treatment. <i>Advanced Energy Materials</i> , 2021 , 11, 2003783	21.8	17
116	Stabilizing the body centered cubic crystal in titanium alloys by a nano-scale concentration modulation. <i>Journal of Alloys and Compounds</i> , 2017 , 700, 155-158	5.7	16
115	Hydrogen trapping and desorption of dual precipitates in tempered low-carbon martensitic steel. <i>Acta Materialia</i> , 2020 , 196, 516-527	8.4	16
114	Point-by-point compositional analysis for atom probe tomography. <i>MethodsX</i> , 2014 , 1, 12-8	1.9	16
113	The effect of clustering on the mobility of dislocations during aging in Nb-microalloyed strip cast steels: In situ heating TEM observations. <i>Scripta Materialia</i> , 2013 , 69, 481-484	5.6	16
112	Insight into the deformation mechanisms of ϵ -Fe at the nanoscale. <i>Scripta Materialia</i> , 2011 , 65, 1037-1040	5.6	16
111	Some factors affecting EBSD pattern quality of Ga ⁺ ion-milled face centred cubic metal surfaces. <i>Materials Chemistry and Physics</i> , 2007 , 106, 142-148	4.4	16

110	Trace element homogeneity from micron- to atomic scale: Implication for the suitability of the zircon GJ-1 as a trace element reference material. <i>Chemical Geology</i> , 2017 , 456, 10-18	4.2	15
109	Nanoscale pathways for human tooth decay - Central planar defect, organic-rich precipitate and high-angle grain boundary. <i>Biomaterials</i> , 2020 , 235, 119748	15.6	15
108	Designing Undercoordinated Ni-N and Fe-N on Holey Graphene for Electrochemical CO Conversion to Syngas. <i>ACS Nano</i> , 2021 ,	16.7	15
107	Ion-irradiation resistance of the orthorhombic Ln ₂ TiO ₅ (Ln = La, Pr, Nd, Sm, Eu, Gd, Tb and Dy) series. <i>Journal of Nuclear Materials</i> , 2015 , 467, 683-691	3.3	14
106	High strength heat-treatable Titanium alloy for additive manufacturing. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020 , 791, 139646	5.3	14
105	Ultrahigh-strength submicron-sized metallic glass wires. <i>Scripta Materialia</i> , 2014 , 84-85, 27-30	5.6	14
104	Elemental distributions within multiphase quaternary Pb chalcogenide thermoelectric materials determined through three-dimensional atom probe tomography. <i>Nano Energy</i> , 2016 , 26, 157-163	17.1	14
103	Crystal chemistry of the orthorhombic Ln ₂ TiO ₅ compounds with Ln=La, Pr, Nd, Sm, Gd, Tb and Dy. <i>Journal of Solid State Chemistry</i> , 2015 , 227, 60-67	3.3	13
102	Continuous and reversible atomic rearrangement in a multifunctional titanium alloy. <i>Materialia</i> , 2018 , 2, 1-8	3.2	13
101	New atom probe approaches to studying segregation in nanocrystalline materials. <i>Ultramicroscopy</i> , 2013 , 132, 158-63	3.1	13
100	A computational geometry framework for the optimisation of atom probe reconstructions. <i>Ultramicroscopy</i> , 2016 , 169, 62-68	3.1	13
99	Advanced volume reconstruction and data mining methods in atom probe tomography. <i>MRS Bulletin</i> , 2016 , 41, 46-52	3.2	12
98	Roles of Nd and Mn in a new creep-resistant magnesium alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020 , 779, 139152	5.3	11
97	Overcoming challenges in the study of nitrided microalloyed steels using atom probe. <i>Ultramicroscopy</i> , 2012 , 112, 32-8	3.1	11
96	Thin film composites of nanocrystalline ZrO ₂ and diamond-like carbon: Synthesis, structural properties and bone cell proliferation. <i>Acta Biomaterialia</i> , 2010 , 6, 4154-60	10.8	11
95	The crystal structures and corresponding ion-irradiation response for the Tb _x Yb _(2-x) TiO ₅ series. <i>Ceramics International</i> , 2018 , 44, 511-519	5.1	11
94	Predicting the fatigue life of an AlSi10Mg alloy manufactured via laser powder bed fusion by using data from computed tomography. <i>Additive Manufacturing</i> , 2020 , 32, 100899	6.1	11
93	Analytical Techniques for Probing Small-Scale Layers that Preserve Information on Gas-Solid Interactions. <i>Reviews in Mineralogy and Geochemistry</i> , 2018 , 84, 103-175	7.1	11

92	The effect of coordination environment on the activity and selectivity of single-atom catalysts. <i>Coordination Chemistry Reviews</i> , 2022 , 461, 214493	23.2	11
91	Influence of Ni Solute segregation on the intrinsic growth stresses in Cu(Ni) thin films. <i>Scripta Materialia</i> , 2016 , 113, 131-134	5.6	10
90	The influence of crystal structure on ion-irradiation tolerance in the Sm(x)Yb(2-x)TiO5 series. <i>Journal of Nuclear Materials</i> , 2016 , 471, 17-24	3.3	10
89	Flame-made amorphous solid acids with tunable acidity for the aqueous conversion of glucose to levulinic acid. <i>Green Chemistry</i> , 2020 , 22, 688-698	10	10
88	Designing Co3O4/silica catalysts and intensified ultrafiltration membrane-catalysis process for wastewater treatment. <i>Chemical Engineering Journal</i> , 2021 , 419, 129465	14.7	10
87	A Gas-Phase Reaction Cell for Modern Atom Probe Systems. <i>Microscopy and Microanalysis</i> , 2019 , 25, 410-417	4.7	9
86	Defining the Potential of Nanoscale Re-Os Isotope Systematics Using Atom Probe Microscopy. <i>Geostandards and Geoanalytical Research</i> , 2018 , 42, 279-299	3.6	9
85	Understanding the mechanical behavior of nanocrystalline AlD thin films with complex microstructures. <i>Acta Materialia</i> , 2014 , 77, 269-283	8.4	9
84	A New Approach to Understand the Adsorption of Thiophene on Different Surfaces: An Atom Probe Investigation of Self-Assembled Monolayers. <i>Langmuir</i> , 2017 , 33, 9573-9581	4	9
83	Revealing the Distribution of the Atoms within Individual Bimetallic Catalyst Nanoparticles. <i>Angewandte Chemie</i> , 2014 , 126, 11372-11375	3.6	9
82	Micron-scale polymer-metal cantilever actuators fabricated by focused ion beam. <i>Sensors and Actuators A: Physical</i> , 2011 , 172, 462-470	3.9	9
81	Significantly Raised Visible-Light Photocatalytic H Evolution on a 2D/2D ReS /In ZnS van der Waals Heterostructure. <i>Small</i> , 2021 , 17, e2100296	11	9
80	Atoms on the move-finding the hydrogen. <i>Science</i> , 2017 , 355, 1128-1129	33.3	8
79	Real-time observation of stress-induced domain evolution in a [011]PIN-PMN-PT relaxor ferroelectric single crystal. <i>Acta Materialia</i> , 2019 , 175, 436-444	8.4	8
78	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. <i>Journal of Nuclear Materials</i> , 2018 , 507, 316-326	3.3	8
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2 4. Analytical Techniques for Probing Small-Scale Layers that Preserve Information on Gas/Solid Interactions **2018**, 103-176

1 Tribological behaviour of fused deposition modelling printed short carbon fibre reinforced nylon composites with surface textures under dry and water lubricated conditions. *Friction*,1

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