

# Julie Cairney

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

235  
papers

6,953  
citations

44  
h-index

72  
g-index

245  
ext. papers

8,209  
ext. citations

6.4  
avg, IF

6.14  
L-index

#	Paper	IF	Citations
235	Giant room temperature compression and bending in ferroelectric oxide pillars.. <i>Nature Communications</i> , <b>2022</b> , 13, 335	17.4	4
234	The effect of coordination environment on the activity and selectivity of single-atom catalysts. <i>Coordination Chemistry Reviews</i> , <b>2022</b> , 461, 214493	23.2	11
233	Atom probe specimen preparation methods for nanoparticles. <i>Ultramicroscopy</i> , <b>2021</b> , 233, 113420	3.1	
232	Simultaneous Large Optical and Piezoelectric Effects Induced by Domain Reconfiguration Related to Ferroelectric Phase Transitions. <i>Advanced Materials</i> , <b>2021</b> , e2106827	24	1
231	Remote Learning Facilitated by MyScope Explore. <i>Microscopy Today</i> , <b>2021</b> , 29, 42-48	0.4	0
230	Isolated copper-tin atomic interfaces tuning electrocatalytic CO conversion. <i>Nature Communications</i> , <b>2021</b> , 12, 1449	17.4	36
229	Cryo Atom Probe: Freezing atoms in place for 3D mapping. <i>Nano Today</i> , <b>2021</b> , 37, 101107	17.9	3
228	Developing Atom Probe Tomography of Phyllosilicates in Preparation for Extra-Terrestrial Sample Return. <i>Geostandards and Geoanalytical Research</i> , <b>2021</b> , 45, 427-441	3.6	1
227	Atomic coordinates and polarization map around a pair of 1 2 a [ 01 1 □ ] dislocation cores produced by plastic deformation in relaxor ferroelectric PIN <sub>0.5</sub> MN <sub>0.5</sub> BT. <i>Journal of Applied Physics</i> , <b>2021</b> , 129, 234101	2.5	0
226	Developing cryogenic and vacuum transfer capabilities at the Australian Centre for Microscopy and Microanalysis. <i>Microscopy and Microanalysis</i> , <b>2021</b> , 27, 982-983	0.5	
225	Nanoporous metal tips as frameworks for analysing frozen liquids with atom probe tomography. <i>Microscopy and Microanalysis</i> , <b>2021</b> , 27, 1512-1513	0.5	
224	Tuning Ta coating properties through chemical and plasma etching pre-treatment of NiTi wire substrates. <i>Surface and Coatings Technology</i> , <b>2021</b> , 418, 127214	4.4	1
223	Enhanced photoelectrochemical water-splitting performance with a hierarchical heterostructure: Co <sub>3</sub> O <sub>4</sub> nanodots anchored TiO <sub>2</sub> @P-C <sub>3</sub> N <sub>4</sub> core-shell nanorod arrays. <i>Chemical Engineering Journal</i> , <b>2021</b> , 404, 126458	14.7	26
222	FeS <sub>2</sub> bridging function to enhance charge transfer between MoS <sub>2</sub> and g-C <sub>3</sub> N <sub>4</sub> for efficient hydrogen evolution reaction. <i>Chemical Engineering Journal</i> , <b>2021</b> , 421, 127804	14.7	17
221	Atom Probe Tomography of Encapsulated Hydroxyapatite Nanoparticles.. <i>Small Methods</i> , <b>2021</b> , 5, e2000698	6.98	3
220	Laser ablation sample preparation for atom probe tomography and transmission electron microscopy. <i>Ultramicroscopy</i> , <b>2021</b> , 220, 113161	3.1	3
219	Understanding the role of facets and twin defects in the optical performance of GaAs nanowires for laser applications. <i>Nanoscale Horizons</i> , <b>2021</b> , 6, 559-567	10.8	3

218	High Efficiency Cu <sub>2</sub> ZnSn(S,Se) <sub>4</sub> Solar Cells with Shallow LiZn Acceptor Defects Enabled by Solution-Based Li Post-Deposition Treatment. <i>Advanced Energy Materials</i> , <b>2021</b> , 11, 2003783	21.8	17
217	Inside Front Cover: Atom Probe Tomography of Encapsulated Hydroxyapatite Nanoparticles (Small Methods 2/2021). <i>Small Methods</i> , <b>2021</b> , 5, 2170004	12.8	
216	Solution Epitaxy of Halide Perovskite Thin Single Crystals for Stable Transistors. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 37840-37848	9.5	2
215	Designing Undercoordinated Ni-N and Fe-N on Holey Graphene for Electrochemical CO Conversion to Syngas. <i>ACS Nano</i> , <b>2021</b> ,	16.7	15
214	Atom probe tomography. <i>Nature Reviews Methods Primers</i> , <b>2021</b> , 1,		24
213	Significantly Raised Visible-Light Photocatalytic H Evolution on a 2D/2D ReS /In ZnS van der Waals Heterostructure. <i>Small</i> , <b>2021</b> , 17, e2100296	11	9
212	Significantly Raised Visible-Light Photocatalytic H <sub>2</sub> Evolution on a 2D/2D ReS <sub>2</sub> /In <sub>2</sub> ZnS <sub>4</sub> van der Waals Heterostructure (Small 32/2021). <i>Small</i> , <b>2021</b> , 17, 2170168	11	1
211	Designing Co <sub>3</sub> O <sub>4</sub> /silica catalysts and intensified ultrafiltration membrane-catalysis process for wastewater treatment. <i>Chemical Engineering Journal</i> , <b>2021</b> , 419, 129465	14.7	10
210	A multi-ion plasma FIB study: Determining ion implantation depths of Xe, N, O and Ar in tungsten via atom probe tomography. <i>Ultramicroscopy</i> , <b>2021</b> , 228, 113334	3.1	3
209	Effect of T6 treatment on additively-manufactured AlSi10Mg sliding against ceramic and steel. <i>Wear</i> , <b>2021</b> , 482-483, 203961	3.5	5
208	Integrative Atom Probe Tomography Using Scanning Transmission Electron Microscopy-Centric Atom Placement as a Step Toward Atomic-Scale Tomography. <i>Microscopy and Microanalysis</i> , <b>2021</b> , 27, 140-148	0.5	4
207	A Comparative Investigation Between Transmission Kikuchi Diffraction (TKD) and Precession Electron Diffraction (PED). <i>Microscopy and Microanalysis</i> , <b>2020</b> , 26, 270-271	0.5	1
206	High strength heat-treatable Titanium alloy for additive manufacturing. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2020</b> , 791, 139646	5.3	14
205	Bridging metal-ion induced vertical growth of MoS <sub>2</sub> and overall fast electron transfer in (C,P)3N4-M (Ni <sup>2+</sup> , Co <sup>2+</sup> )-MoS <sub>2</sub> electrocatalyst for efficient hydrogen evolution reaction. <i>Sustainable Materials and Technologies</i> , <b>2020</b> , 25, e00172	5.3	3
204	Novel complex ceramic oxides, Ln <sub>2</sub> TiO <sub>5</sub> (Ln=La, Sm, Gd, Tb, Dy, Ho, Er, and Yb), for polyphase nuclear waste-forms. <i>Journal of the American Ceramic Society</i> , <b>2020</b> , 103, 5536-5545	3.8	2
203	Lateral Gating of 2D Electron Gas in Cross-Sectional LaAlO <sub>3</sub> /SrTiO <sub>3</sub> . <i>Advanced Electronic Materials</i> , <b>2020</b> , 6, 2000068	6.4	3
202	Roles of Nd and Mn in a new creep-resistant magnesium alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2020</b> , 779, 139152	5.3	11
201	Hydrogen trapping and desorption of dual precipitates in tempered low-carbon martensitic steel. <i>Acta Materialia</i> , <b>2020</b> , 196, 516-527	8.4	16

200	Tunable Syngas Production through CO Electroreduction on Cobalt-Carbon Composite Electrocatalyst. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 9307-9315	9.5	42
199	Plastic Deformation of Single-Crystal Diamond Nanopillars. <i>Advanced Materials</i> , <b>2020</b> , 32, e1906458	24	21
198	Carbon-Coating Layers on Boron Generated High Critical Current Density in MgB Superconductor. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 8563-8572	9.5	6
197	Improving metal-ceramic systems subjected to sliding contact by reinforcing the metallic counterpart with ceramic particles. <i>Wear</i> , <b>2020</b> , 452-453, 203311	3.5	2
196	Development of (Nb <sub>0.75</sub> Ti <sub>0.25</sub> )C-Reinforced Cast Duplex Stainless Steel Composites. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2020</b> , 51, 2366-2376	2.3	
195	Thermally stable epitaxial ZrN/carrier-compensated Sc <sub>0.99</sub> Mg <sub>0.01</sub> N metal/semiconductor multilayers for thermionic energy conversion. <i>Journal of Materials Science</i> , <b>2020</b> , 55, 1592-1602	4.3	6
194	Observation of hydrogen trapping at dislocations, grain boundaries, and precipitates. <i>Science</i> , <b>2020</b> , 367, 171-175	33.3	120
193	Flame-made amorphous solid acids with tunable acidity for the aqueous conversion of glucose to levulinic acid. <i>Green Chemistry</i> , <b>2020</b> , 22, 688-698	10	10
192	Nanoscale pathways for human tooth decay - Central planar defect, organic-rich precipitate and high-angle grain boundary. <i>Biomaterials</i> , <b>2020</b> , 235, 119748	15.6	15
191	The effect of hydrogen on the early stages of oxidation of a magnesium alloy. <i>Corrosion Science</i> , <b>2020</b> , 165, 108391	6.8	6
190	Precipitation of (Ti, Zr, Nb, Ta, Hf)C high entropy carbides in a steel matrix. <i>Materialia</i> , <b>2020</b> , 9, 100540	3.2	6
189	A rival to superalloys at high temperatures. <i>Science</i> , <b>2020</b> , 370, 37-38	33.3	2
188	New frontiers in atom probe tomography: a review of research enabled by cryo and/or vacuum transfer systems. <i>Materials Today Advances</i> , <b>2020</b> , 7, 100090-100090	7.4	22
187	Atomic-Level Insights into the Edge Active ReS <sub>2</sub> Ultrathin Nanosheets for High-Efficiency Light-to-Hydrogen Conversion <b>2020</b> , 2, 1484-1494		35
186	Versatile direct-writing of dopants in a solid state host through recoil implantation. <i>Nature Communications</i> , <b>2020</b> , 11, 5039	17.4	8
185	Predicting the fatigue life of an AlSi10Mg alloy manufactured via laser powder bed fusion by using data from computed tomography. <i>Additive Manufacturing</i> , <b>2020</b> , 32, 100899	6.1	11
184	Understanding solid solution strengthening at elevated temperatures in a creep-resistant Mg <sub>92</sub> Ca alloy. <i>Acta Materialia</i> , <b>2019</b> , 181, 185-199	8.4	30
183	Overcoming Challenges Associated with the Analysis of Nacre by Atom Probe Tomography. <i>Geostandards and Geoanalytical Research</i> , <b>2019</b> , 43, 385-395	3.6	3

182	Real-time observation of stress-induced domain evolution in a [011]Pb(PIN-PMN-PT relaxor ferroelectric single crystal. <i>Acta Materialia</i> , <b>2019</b> , 175, 436-444	8.4	8
181	A Gas-Phase Reaction Cell for Modern Atom Probe Systems. <i>Microscopy and Microanalysis</i> , <b>2019</b> , 25, 410-417	4.7	9
180	Cd-Free Cu <sub>2</sub> ZnSnS <sub>4</sub> solar cell with an efficiency greater than 10% enabled by Al <sub>2</sub> O <sub>3</sub> passivation layers. <i>Energy and Environmental Science</i> , <b>2019</b> , 12, 2751-2764	35.4	63
179	Factors that affect the properties of additively-manufactured AlSi10Mg: Porosity versus microstructure. <i>Additive Manufacturing</i> , <b>2019</b> , 29, 100805	6.1	30
178	The effect of NbC morphology on the slurry erosion performance of ferrous alloys. <i>Wear</i> , <b>2019</b> , 434-435, 202988	3.5	1
177	Atomic-scale Observation of Hydroxyapatite Nanoparticle. <i>Microscopy and Microanalysis</i> , <b>2019</b> , 25, 2528-2529	2.5	29
176	Quantitative Determination of How Growth Conditions Affect the 3D Composition of InGaAs Nanowires. <i>Microscopy and Microanalysis</i> , <b>2019</b> , 25, 524-531	0.5	1
175	Slurry erosion, sliding wear and corrosion behavior of martensitic stainless steel composites reinforced in-situ with NbC particles. <i>Wear</i> , <b>2019</b> , 420-421, 149-162	3.5	24
174	Fatigue properties of AlSi10Mg produced by Additive Layer Manufacturing. <i>International Journal of Fatigue</i> , <b>2019</b> , 119, 160-172	5	55
173	Dynamic precipitation, segregation and strengthening of an Al-Zn-Mg-Cu alloy (AA7075) processed by high-pressure torsion. <i>Acta Materialia</i> , <b>2019</b> , 162, 19-32	8.4	102
172	Precipitation of string-shaped morphologies consisting of aligned $\beta$ phase in a metastable $\alpha$ titanium alloy. <i>Scientific Reports</i> , <b>2018</b> , 8, 2038	4.9	3
171	Microstructure characterisation and mechanical properties of a functionally-graded NbC/high chromium white cast iron composite. <i>Materials Characterization</i> , <b>2018</b> , 136, 196-205	3.9	19
170	Atom probe study of impurity segregation at grain boundaries in chromia scales grown in CO <sub>2</sub> gas. <i>Corrosion Science</i> , <b>2018</b> , 132, 125-135	6.8	25
169	A study on novel AISI 304 stainless steel matrix composites reinforced with (Nb <sub>0.75</sub> Ti <sub>0.25</sub> )C. <i>Wear</i> , <b>2018</b> , 398-399, 220-226	3.5	23
168	Defining the Potential of Nanoscale Re-Os Isotope Systematics Using Atom Probe Microscopy. <i>Geostandards and Geoanalytical Research</i> , <b>2018</b> , 42, 279-299	3.6	9
167	Advanced concentration analysis of atom probe tomography data: Local proximity histograms and pseudo-2D concentration maps. <i>Ultramicroscopy</i> , <b>2018</b> , 189, 61-64	3.1	4
166	Effects of Si, Mn, and water vapour on the microstructure of protective scales grown on Fe <sub>2</sub> O <sub>3</sub> /Cr in CO <sub>2</sub> gas. <i>Materials at High Temperatures</i> , <b>2018</b> , 35, 22-29	1.1	5
165	Nucleation driving force for $\beta$ -assisted formation of $\beta$ and associated $\beta$ morphology in $\beta$ Ti alloys. <i>Scripta Materialia</i> , <b>2018</b> , 155, 149-154	5.6	22

164	Cu <sub>2</sub> ZnSnS <sub>4</sub> solar cells with over 10% power conversion efficiency enabled by heterojunction heat treatment. <i>Nature Energy</i> , <b>2018</b> , 3, 764-772	6.3	429
163	Atom probe tomography analysis of the reference zircon GJ-1: An interlaboratory study. <i>Chemical Geology</i> , <b>2018</b> , 495, 27-35	4.2	18
162	The ion-irradiation tolerance of the pyrochlore to fluorite Ho(x)Yb(2-x)TiO <sub>5</sub> and Er <sub>2</sub> TiO <sub>5</sub> compounds: A TEM comparative study using both in-situ and bulk ex-situ irradiation approaches. <i>Journal of Nuclear Materials</i> , <b>2018</b> , 507, 316-326	3.3	8
161	Continuous and reversible atomic rearrangement in a multifunctional titanium alloy. <i>Materialia</i> , <b>2018</b> , 2, 1-8	3.2	13
160	Performance of an FeCrAl alloy in a high-temperature CO <sub>2</sub> environment. <i>Corrosion Science</i> , <b>2018</b> , 139, 267-274	6.8	8
159	Nanoscale Analysis of Corrosion Products: A Review of the Application of Atom Probe and Complementary Microscopy Techniques. <i>Jom</i> , <b>2018</b> , 70, 1744-1751	2.1	5
158	The crystal structures and corresponding ion-irradiation response for the Tb(x)Yb(2-x)TiO <sub>5</sub> series. <i>Ceramics International</i> , <b>2018</b> , 44, 511-519	5.1	11
157	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> , <b>2018</b> , 126, 13-17	9.4	34
156	Analytical Techniques for Probing Small-Scale Layers that Preserve Information on Gas-Solid Interactions. <i>Reviews in Mineralogy and Geochemistry</i> , <b>2018</b> , 84, 103-175	7.1	11
155	4. Analytical Techniques for Probing Small-Scale Layers that Preserve Information on Gas-Solid Interactions <b>2018</b> , 103-176		
154	Fracture toughness testing using photogrammetry and digital image correlation. <i>MethodsX</i> , <b>2018</b> , 5, 1166-1177	1.9	8
153	Additive manufacturing of a novel alpha titanium alloy from commercially pure titanium with minor addition of Mo <sub>2</sub> C. <i>Materialia</i> , <b>2018</b> , 4, 227-236	3.2	5
152	Interpreting Atom Probe Data from Oxide-Metal Interfaces. <i>Microscopy and Microanalysis</i> , <b>2018</b> , 24, 342-349	3.9	4
151	Stabilizing the body centered cubic crystal in titanium alloys by a nano-scale concentration modulation. <i>Journal of Alloys and Compounds</i> , <b>2017</b> , 700, 155-158	5.7	16
150	Tracing the coupled atomic shear and shuffle for a cubic to a hexagonal crystal transition. <i>Scripta Materialia</i> , <b>2017</b> , 133, 70-74	5.6	31
149	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> , <b>2017</b> , 456, 10-18	4.2	15
148	Laser-Assisted Atom Probe Tomography of Deformed Minerals: A Zircon Case Study. <i>Microscopy and Microanalysis</i> , <b>2017</b> , 23, 404-413	0.5	21
147	Vibration Energy Harvesting Using Relaxor Ferroelectric Transduction. <i>Procedia Engineering</i> , <b>2017</b> , 188, 432-439		2

146	Elastically confined martensitic transformation at the nano-scale in a multifunctional titanium alloy. <i>Acta Materialia</i> , <b>2017</b> , 135, 330-339	8.4	35
145	Atoms on the move-finding the hydrogen. <i>Science</i> , <b>2017</b> , 355, 1128-1129	33.3	8
144	Correlating Atom Probe Crystallographic Measurements with Transmission Kikuchi Diffraction Data. <i>Microscopy and Microanalysis</i> , <b>2017</b> , 23, 279-290	0.5	39
143	Atom Probe Tomography of Human Tooth Enamel and the Accurate Identification of Magnesium and Carbon in the Mass Spectrum. <i>Microscopy and Microanalysis</i> , <b>2017</b> , 23, 676-677	0.5	1
142	Online Microscope Simulators for Training and Outreach. <i>Microscopy and Microanalysis</i> , <b>2017</b> , 23, 2300-2301	0.5	2
141	A New Approach to Understand the Adsorption of Thiophene on Different Surfaces: An Atom Probe Investigation of Self-Assembled Monolayers. <i>Langmuir</i> , <b>2017</b> , 33, 9573-9581	4	9
140	The Influence of Microscope and Specimen Parameters on the Spatial Resolution of Transmission Kikuchi Diffraction. <i>Microscopy and Microanalysis</i> , <b>2017</b> , 23, 532-533	0.5	7
139	Investigating Stress-Assisted Grain Growth in Nanocrystalline Materials Using in-situ Transmission Kikuchi Diffraction. <i>Microscopy and Microanalysis</i> , <b>2017</b> , 23, 538-539	0.5	5
138	Breaking the icosahedra in boron carbide. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2016</b> , 113, 12012-12016	11.5	22
137	Deformation-induced trace element redistribution in zircon revealed using atom probe tomography. <i>Nature Communications</i> , <b>2016</b> , 7, 10490	17.4	105
136	Atomic-scale compositional mapping reveals Mg-rich amorphous calcium phosphate in human dental enamel. <i>Science Advances</i> , <b>2016</b> , 2, e1601145	14.3	76
135	Grain size stability in Al-Sc alloys processed by severe plastic deformation. <i>Scripta Materialia</i> , <b>2016</b> , 123, 105-108	5.6	3
134	Influence of Ni Solute segregation on the intrinsic growth stresses in Cu(Ni) thin films. <i>Scripta Materialia</i> , <b>2016</b> , 113, 131-134	5.6	10
133	New insights into the phase transformations to isothermal and assisted $\beta$ n near $\beta$ Ti alloys. <i>Acta Materialia</i> , <b>2016</b> , 106, 353-366	8.4	111
132	Recognizing 60 years of achievements in field emission and atomic scale microscopy. <i>Materials Today</i> , <b>2016</b> , 19, 182-183	21.8	1
131	The influence of crystal structure on ion-irradiation tolerance in the Sm(x)Yb(2-x)TiO5 series. <i>Journal of Nuclear Materials</i> , <b>2016</b> , 471, 17-24	3.3	10
130	A simple approach to atom probe sample preparation by using shadow masks. <i>Ultramicroscopy</i> , <b>2016</b> , 160, 163-167	3.1	5
129	Transmission Kikuchi diffraction in a scanning electron microscope: A review. <i>Materials Science and Engineering Reports</i> , <b>2016</b> , 110, 1-12	30.9	107

128	Linking stress-driven microstructural evolution in nanocrystalline aluminium with grain boundary doping of oxygen. <i>Nature Communications</i> , <b>2016</b> , 7, 11225	17.4	28
127	Advanced volume reconstruction and data mining methods in atom probe tomography. <i>MRS Bulletin</i> , <b>2016</b> , 41, 46-52	3.2	12
126	Elemental distributions within multiphase quaternary Pb chalcogenide thermoelectric materials determined through three-dimensional atom probe tomography. <i>Nano Energy</i> , <b>2016</b> , 26, 157-163	17.1	14
125	The role of $\text{In}$ in the precipitation of $\text{In}$ in near- $\text{Ti}$ alloys. <i>Scripta Materialia</i> , <b>2016</b> , 117, 92-95	5.6	28
124	A computational geometry framework for the optimisation of atom probe reconstructions. <i>Ultramicroscopy</i> , <b>2016</b> , 169, 62-68	3.1	13
123	Superelasticity and Tunable Thermal Expansion across a Wide Temperature Range. <i>Journal of Materials Science and Technology</i> , <b>2016</b> , 32, 705-709	9.1	56
122	Fabrication and characterization of microstructure of stainless steel matrix composites containing up to 25vol% NbC. <i>Materials Characterization</i> , <b>2016</b> , 119, 65-74	3.9	23
121	Mining information from atom probe data. <i>Ultramicroscopy</i> , <b>2015</b> , 159 Pt 2, 324-37	3.1	46
120	A new systematic framework for crystallographic analysis of atom probe data. <i>Ultramicroscopy</i> , <b>2015</b> , 154, 7-14	3.1	24
119	Crystal chemistry of the orthorhombic $\text{Ln}_2\text{TiO}_5$ compounds with $\text{Ln}=\text{La, Pr, Nd, Sm, Gd, Tb}$ and $\text{Dy}$ . <i>Journal of Solid State Chemistry</i> , <b>2015</b> , 227, 60-67	3.3	13
118	The mechanism of $\text{In}$ -assisted $\text{In}$ phase formation in near- $\text{Ti}$ alloys. <i>Scripta Materialia</i> , <b>2015</b> , 104, 75-78	5.6	61
117	Mapping interfacial excess in atom probe data. <i>Ultramicroscopy</i> , <b>2015</b> , 159 Pt 2, 438-44	3.1	22
116	Ion-irradiation resistance of the orthorhombic $\text{Ln}_2\text{TiO}_5$ ( $\text{Ln} = \text{La, Pr, Nd, Sm, Eu, Gd, Tb}$ and $\text{Dy}$ ) series. <i>Journal of Nuclear Materials</i> , <b>2015</b> , 467, 683-691	3.3	14
115	Interpreting atom probe data from chromium oxide scales. <i>Ultramicroscopy</i> , <b>2015</b> , 159 Pt 2, 354-9	3.1	26
114	The effect orientation of features in reconstructed atom probe data on the resolution and measured composition of T1 plates in an A2198 aluminium alloy. <i>Ultramicroscopy</i> , <b>2015</b> , 159 Pt 2, 368-73 <sup>3.1</sup>		2
113	New approaches to nanoparticle sample fabrication for atom probe tomography. <i>Ultramicroscopy</i> , <b>2015</b> , 159 Pt 2, 413-9	3.1	44
112	Detecting and extracting clusters in atom probe data: a simple, automated method using Voronoi cells. <i>Ultramicroscopy</i> , <b>2015</b> , 150, 30-36	3.1	39
111	Increasing the strength of nanocrystalline steels by annealing: Is segregation necessary?. <i>Scripta Materialia</i> , <b>2015</b> , 95, 27-30	5.6	68



110	Investigation into Solute Stabilizing Effects in Nanocrystalline Materials: An Atom Probe Characterization Study. <i>Microscopy and Microanalysis</i> , <b>2015</b> , 21, 357-358	0.5	
109	The Hidden Pathways in Dense Energy Materials - Oxygen at Defects in Nanocrystalline Metals. <i>Advanced Materials</i> , <b>2015</b> , 27, 6220-4	24	8
108	The influence of partitioning on the growth of intragranular $\beta$ in near- $\beta$ Ti alloys. <i>Journal of Alloys and Compounds</i> , <b>2015</b> , 643, 212-222	5.7	30
107	Atom probe study of chromium oxide spinels formed during intergranular corrosion. <i>Scripta Materialia</i> , <b>2015</b> , 99, 1-4	5.6	27
106	The evolution of microstructure and mechanical properties of Ti <sub>50</sub> Al <sub>10</sub> Mo <sub>5</sub> V <sub>2</sub> Cr <sub>1</sub> Fe during ageing. <i>Journal of Alloys and Compounds</i> , <b>2015</b> , 629, 260-273	5.7	45
105	Effect of austenite deformation temperature on Nb clustering and precipitation in microalloyed steel. <i>Scripta Materialia</i> , <b>2014</b> , 75, 74-77	5.6	29
104	Precipitation of the $\beta$ phase in an ultrafine grained beta-titanium alloy processed by severe plastic deformation. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2014</b> , 605, 144-150	5.3	18
103	Characterizing deformed ultrafine-grained and nanocrystalline materials using transmission Kikuchi diffraction in a scanning electron microscope. <i>Acta Materialia</i> , <b>2014</b> , 62, 69-80	8.4	125
102	An automated method of quantifying ferrite microstructures using electron backscatter diffraction (EBSD) data. <i>Ultramicroscopy</i> , <b>2014</b> , 137, 40-7	3.1	43
101	Revealing the distribution of the atoms within individual bimetallic catalyst nanoparticles. <i>Angewandte Chemie - International Edition</i> , <b>2014</b> , 53, 11190-3	16.4	32
100	Understanding the mechanical behavior of nanocrystalline Al <sub>2</sub> O <sub>3</sub> thin films with complex microstructures. <i>Acta Materialia</i> , <b>2014</b> , 77, 269-283	8.4	9
99	Titelbild: Revealing the Distribution of the Atoms within Individual Bimetallic Catalyst Nanoparticles (Angew. Chem. 42/2014). <i>Angewandte Chemie</i> , <b>2014</b> , 126, 11279-11279	3.6	
98	Ultra-high-strength submicron-sized metallic glass wires. <i>Scripta Materialia</i> , <b>2014</b> , 84-85, 27-30	5.6	14
97	Penetration of protective chromia scales by carbon. <i>Scripta Materialia</i> , <b>2014</b> , 77, 29-32	5.6	81
96	Point-by-point compositional analysis for atom probe tomography. <i>MethodsX</i> , <b>2014</b> , 1, 12-8	1.9	16
95	Effect of ion irradiation on tensile ductility, strength and fictive temperature in metallic glass nanowires. <i>Acta Materialia</i> , <b>2014</b> , 74, 165-182	8.4	100
94	Resolving the morphology of niobium carbonitride nano-precipitates in steel using atom probe tomography. <i>Microscopy and Microanalysis</i> , <b>2014</b> , 20, 1100-10	0.5	22
93	Revealing the Distribution of the Atoms within Individual Bimetallic Catalyst Nanoparticles. <i>Angewandte Chemie</i> , <b>2014</b> , 126, 11372-11375	3.6	9

92	Crystal structures of orthorhombic, hexagonal, and cubic compounds of the Sm(x)Yb(2-x)TiO5 series. <i>Journal of Solid State Chemistry</i> , <b>2014</b> , 213, 182-192	3.3	26
91	Effect of niobium clustering and precipitation on strength of an NbTi-microalloyed ferritic steel. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2014</b> , 607, 226-235	5.3	28
90	Martensitic transformation in an intergranular corrosion area of austenitic stainless steel during thermal cycling. <i>Corrosion Science</i> , <b>2014</b> , 85, 1-6	6.8	25
89	Microstructural evolution during ageing of AlCuNi alloys. <i>Acta Materialia</i> , <b>2014</b> , 66, 199-208	8.4	122
88	Performance of graphene, carbon nanotube, and gold nanoparticle chemiresistor sensors for the detection of petroleum hydrocarbons in water. <i>Journal of Nanoparticle Research</i> , <b>2014</b> , 16, 1	2.3	27
87	New atom probe approaches to studying segregation in nanocrystalline materials. <i>Ultramicroscopy</i> , <b>2013</b> , 132, 158-63	3.1	13
86	The rise of computational techniques in atom probe microscopy. <i>Current Opinion in Solid State and Materials Science</i> , <b>2013</b> , 17, 224-235	12	24
85	Cluster strengthening of Nb-microalloyed ultra-thin cast strip steels produced by the CASTRIP process. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2013</b> , 568, 88-95	5.3	21
84	The anatomy of grain boundaries: Their structure and atomic-level solute distribution. <i>Scripta Materialia</i> , <b>2013</b> , 69, 622-625	5.6	43
83	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> , <b>2013</b> , 69, 481-484	5.6	16
82	Phase Evolution upon Aging of Air Plasma Sprayed t?-Zirconia Coatings: II Microstructure Evolution. <i>Journal of the American Ceramic Society</i> , <b>2013</b> , 96, 299-307	3.8	49
81	High Strength and Retained Ductility Achieved in a Nitrided Strip Cast Nb-Microalloyed Steel. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2013</b> , 44, 848-855	2.3	3
80	Long-chain terminal alcohols through catalytic CO hydrogenation. <i>Journal of the American Chemical Society</i> , <b>2013</b> , 135, 7114-7	16.4	144
79	The effect of pre-existing defects on the strength and deformation behavior of Fe nanopillars. <i>Acta Materialia</i> , <b>2013</b> , 61, 439-452	8.4	29
78	Atom probe microscopy characterization of as quenched Zr0.8wt% Fe and Zr0.15wt% Cr binary alloys. <i>Materials Letters</i> , <b>2013</b> , 91, 63-66	3.3	7
77	An Overview of the Effect of Nb in Strengthening Castrip Steel. <i>Materials Science Forum</i> , <b>2013</b> , 753, 559-562	0.4	2
76	Applying computational geometry techniques for advanced feature analysis in atom probe data. <i>Ultramicroscopy</i> , <b>2013</b> , 132, 100-6	3.1	35
75	Correlating spatial, temporal and chemical information in atom probe data: new insights from multiple evaporation in microalloyed steels. <i>Philosophical Magazine Letters</i> , <b>2013</b> , 93, 299-306	1	8

74	Strengthening from Nb-rich clusters in a Nb-microalloyed steel. <i>Scripta Materialia</i> , <b>2012</b> , 66, 710-713	5.6	70
73	Atom probe crystallography: Atomic-scale 3-D orientation mapping. <i>Scripta Materialia</i> , <b>2012</b> , 66, 907-910	5.6	57
72	Overcoming challenges in the study of nitrated microalloyed steels using atom probe. <i>Ultramicroscopy</i> , <b>2012</b> , 112, 32-8	3.1	11
71	A reproducible method for damage-free site-specific preparation of atom probe tips from interfaces. <i>Microscopy Research and Technique</i> , <b>2012</b> , 75, 484-91	2.8	122
70	Pushing the Limits for Microactuators Based on Electroactive Polymers. <i>Journal of Microelectromechanical Systems</i> , <b>2012</b> , 21, 574-585	2.5	25
69	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> , <b>2012</b> , 60, 5049-5055	8.4	46
68	Three-dimensional nanofabrication of polystyrene by focused ion beam. <i>Journal of Microscopy</i> , <b>2012</b> , 248, 129-39	1.9	17
67	Atom probe crystallography. <i>Materials Today</i> , <b>2012</b> , 15, 378-386	21.8	134
66	Atom Probe Microscopy. <i>Springer Series in Materials Science</i> , <b>2012</b> ,	0.9	415
65	A new approach to the determination of concentration profiles in atom probe tomography. <i>Microscopy and Microanalysis</i> , <b>2012</b> , 18, 359-64	0.5	38
64	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> , <b>2012</b> , 43, 2183-2191	2.3	44
63	Observations of grain boundary impurities in nanocrystalline Al and their influence on microstructural stability and mechanical behaviour. <i>Acta Materialia</i> , <b>2012</b> , 60, 1038-1047	8.4	105
62	3D-EBSD Studies of Deformation, Recrystallization and Phase Transformations. <i>Materials Science Forum</i> , <b>2012</b> , 715-716, 41-50	0.4	2
61	Atom Probe Microscopy and Materials Science. <i>Springer Series in Materials Science</i> , <b>2012</b> , 299-311	0.9	
60	Experimental Protocols in Field Ion Microscopy. <i>Springer Series in Materials Science</i> , <b>2012</b> , 111-120	0.9	
59	Field Ion Microscopy. <i>Springer Series in Materials Science</i> , <b>2012</b> , 9-28	0.9	1
58	From Field Desorption Microscopy to Atom Probe Tomography. <i>Springer Series in Materials Science</i> , <b>2012</b> , 29-68	0.9	3
57	Specimen Preparation. <i>Springer Series in Materials Science</i> , <b>2012</b> , 71-110	0.9	4

56	Experimental Protocols in Atom Probe Tomography. <i>Springer Series in Materials Science</i> , <b>2012</b> , 121-155	0.9	2
55	Tomographic Reconstruction. <i>Springer Series in Materials Science</i> , <b>2012</b> , 157-209	0.9	3
54	Analysis Techniques for Atom Probe Tomography. <i>Springer Series in Materials Science</i> , <b>2012</b> , 213-297	0.9	5
53	Phase Stability of t?-Zirconia-Based Thermal Barrier Coatings: Mechanistic Insights. <i>Journal of the American Ceramic Society</i> , <b>2011</b> , 94, s168-s177	3.8	87
52	Dynamic reconstruction for atom probe tomography. <i>Ultramicroscopy</i> , <b>2011</b> , 111, 1619-24	3.1	67
51	Insight into the deformation mechanisms of Fe at the nanoscale. <i>Scripta Materialia</i> , <b>2011</b> , 65, 1037-1040	5.6	16
50	Micron-scale polymer-metal cantilever actuators fabricated by focused ion beam. <i>Sensors and Actuators A: Physical</i> , <b>2011</b> , 172, 462-470	3.9	9
49	Effect of Nb Microalloying and Hot Rolling on Microstructure and Properties of Ultrathin Cast Strip Steels Produced by the CASTRIP Process. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2011</b> , 42, 2199-2206	2.3	37
48	Synthesis and performance evaluation of thin film PPy-PVDF multilayer electroactive polymer actuators. <i>Sensors and Actuators A: Physical</i> , <b>2011</b> , 165, 321-328	3.9	62
47	Atom probe crystallography: characterization of grain boundary orientation relationships in nanocrystalline aluminium. <i>Ultramicroscopy</i> , <b>2011</b> , 111, 493-9	3.1	48
46	Crystallographic structural analysis in atom probe microscopy via 3D Hough transformation. <i>Ultramicroscopy</i> , <b>2011</b> , 111, 458-63	3.1	56
45	Shaping the lens of the atom probe: fabrication of site specific, oriented specimens and application to grain boundary analysis. <i>Ultramicroscopy</i> , <b>2011</b> , 111, 435-9	3.1	41
44	Optimisation of specimen temperature and pulse fraction in atom probe microscopy experiments on a microalloyed steel. <i>Ultramicroscopy</i> , <b>2011</b> , 111, 648-51	3.1	29
43	Effect of electrolyte storage layer on performance of PPy-PVDF-PPy microactuators. <i>Sensors and Actuators B: Chemical</i> , <b>2011</b> , 155, 810-816	8.5	26
42	Focused Ion Beam Fabricated Polystyrene-Platinum Thermal Microactuator. <i>Advanced Materials Research</i> , <b>2011</b> , 254, 86-89	0.5	3
41	Challenges Associated with the Characterisation of Nanocrystalline Materials Using Atom Probe Tomography. <i>Materials Science Forum</i> , <b>2010</b> , 654-656, 2366-2369	0.4	5
40	Nitriding of a Nb-Microalloyed Thin Strip Cast Steel at 525°C. <i>Materials Science Forum</i> , <b>2010</b> , 654-656, 106-109	0.4	1
39	Thin-film nanocomposites of diamond-like carbon and titanium oxide; Osteoblast adhesion and surface properties. <i>Diamond and Related Materials</i> , <b>2010</b> , 19, 329-335	3.5	28

38	On the multiplicity of field evaporation events in atom probe: A new dimension to the analysis of mass spectra. <i>Philosophical Magazine Letters</i> , <b>2010</b> , 90, 121-129	1	82
37	Optimization of pulsed laser atom probe (PLAP) for the analysis of nanocomposite Ti-Si-N films. <i>Ultramicroscopy</i> , <b>2010</b> , 110, 836-43	3.1	59
36	Microstructural investigation of TiSiN hard coatings. <i>Scripta Materialia</i> , <b>2010</b> , 63, 192-195	5.6	25
35	Precipitation and clustering in the early stages of ageing in Inconel 718. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2010</b> , 527, 7770-7774	5.3	50
34	Effect of coating thickness on the deformation mechanisms in PVD TiN-coated steel. <i>Surface and Coatings Technology</i> , <b>2010</b> , 204, 1764-1773	4.4	33
33	Investigating the microstructure and composition of cold gas-dynamic spray (CGDS) Ti powder deposited on Al 6063 substrate. <i>Surface and Coatings Technology</i> , <b>2010</b> , 204, 3739-3749	4.4	55
32	Elemental partitioning of platinum group metal containing Ni-base superalloys using electron microprobe analysis and atom probe tomography. <i>Acta Materialia</i> , <b>2010</b> , 58, 1952-1962	8.4	50
31	Thin film composites of nanocrystalline ZrO <sub>2</sub> and diamond-like carbon: Synthesis, structural properties and bone cell proliferation. <i>Acta Biomaterialia</i> , <b>2010</b> , 6, 4154-60	10.8	11
30	Three dimensional imaging of deformation modes in TiN-based thin film coatings. <i>Thin Solid Films</i> , <b>2007</b> , 515, 3190-3195	2.2	23
29	Three-dimensional investigation of particle-stimulated nucleation in a nickel alloy. <i>Acta Materialia</i> , <b>2007</b> , 55, 5157-5167	8.4	50
28	Site-specific specimen preparation for atom probe tomography of grain boundaries. <i>Physica B: Condensed Matter</i> , <b>2007</b> , 394, 267-269	2.8	30
27	Techniques for generating 3-D EBSD microstructures by FIB tomography. <i>Materials Characterization</i> , <b>2007</b> , 58, 961-967	3.9	63
26	Some factors affecting EBSD pattern quality of Ga <sup>+</sup> ion-milled face centred cubic metal surfaces. <i>Materials Chemistry and Physics</i> , <b>2007</b> , 106, 142-148	4.4	16
25	Focused-ion-beam milling: a novel approach to probing the interior of particles used for inhalation aerosols. <i>Pharmaceutical Research</i> , <b>2007</b> , 24, 1608-17	4.5	37
24	Atom probe specimen fabrication methods using a dual FIB/SEM. <i>Ultramicroscopy</i> , <b>2007</b> , 107, 756-60	3.1	65
23	On the Viability of FIB Tomography for Generating 3-D Orientation Maps in Deformed and Annealed Metals. <i>Materials Science Forum</i> , <b>2007</b> , 550, 55-64	0.4	5
22	Phase stability of thermal barrier oxides: A comparative study of Y and Yb additions. <i>International Journal of Materials Research</i> , <b>2007</b> , 98, 1177-1187	0.5	30
21	Preparation of Site Specific Atom Probe Tips using Focused Ion Beam Technology. <i>Microscopy and Microanalysis</i> , <b>2006</b> , 12, 1296-1297	0.5	1

20	Fabrication of dies in micro-scale for micro-sheet metal forming. <i>Journal of Materials Processing Technology</i> , <b>2006</b> , 177, 639-643	5.3	39
19	Deformation and fracture of TiN and TiAlN coatings on a steel substrate during nanoindentation. <i>Surface and Coatings Technology</i> , <b>2006</b> , 200, 3518-3526	4.4	42
18	ZrSiN films fabricated using hybrid cathodic arc and chemical vapour deposition: Structure vs. properties. <i>Surface and Coatings Technology</i> , <b>2006</b> , 200, 4213-4219	4.4	34
17	Deposition of nanocomposite thin films by a hybrid cathodic arc and chemical vapour technique. <i>Surface and Coatings Technology</i> , <b>2006</b> , 201, 4139-4144	4.4	25
16	Deformation and fracture of TiSiN nanocomposite films. <i>Thin Solid Films</i> , <b>2005</b> , 479, 193-200	2.2	34
15	Deformation mechanisms operating during nanoindentation of TiN coatings on steel substrates. <i>Surface and Coatings Technology</i> , <b>2005</b> , 192, 11-18	4.4	51
14	Nanocomposite TiSiN, ZrSiN, TiAlSiN, TiAlVSiN thin film coatings deposited by vacuum arc deposition. <i>Surface and Coatings Technology</i> , <b>2005</b> , 200, 2228-2235	4.4	104
13	The application of focused ion beam technology to the characterization of coatings. <i>Surface and Coatings Technology</i> , <b>2005</b> , 198, 165-168	4.4	39
12	Deposition of nanocomposite TiN-Si <sub>3</sub> N <sub>4</sub> thin films by hybrid cathodic arc and chemical vapor process. <i>Applied Physics A: Materials Science and Processing</i> , <b>2005</b> , 81, 151-158	2.6	27
11	Reducing the macroparticle content of cathodic arc evaporated TiN coatings. <i>Surface and Coatings Technology</i> , <b>2004</b> , 183, 283-294	4.4	75
10	Transmission electron microscopy of TiN and TiAlN thin films using specimens prepared by focused ion beam milling. <i>Surface and Coatings Technology</i> , <b>2004</b> , 183, 239-246	4.4	32
9	Degradation of TiN coatings under cyclic loading. <i>Acta Materialia</i> , <b>2004</b> , 52, 3229-3237	8.4	57
8	Characterization of TiN thin films subjected to nanoindentation using focused ion beam milling. <i>Applied Surface Science</i> , <b>2004</b> , 237, 627-631	6.7	23
7	Redeposition effects in transmission electron microscope specimens of FeAl-WC composites prepared using a focused ion beam. <i>Micron</i> , <b>2003</b> , 34, 97-107	2.3	36
6	Preparation of transmission electron microscope specimens from FeAl and WC powders using focused-ion beam milling. <i>Materials Characterization</i> , <b>2001</b> , 46, 297-304	3.9	22
5	Transmission Electron Microscope Specimen Preparation of Metal Matrix Composites Using the Focused Ion Beam Miller. <i>Microscopy and Microanalysis</i> , <b>2000</b> , 6, 452-462	0.5	27
4	Examination of fracture surfaces using focused ion beam milling. <i>Scripta Materialia</i> , <b>2000</b> , 42, 473-478	5.6	20
3	Redeposition Effects in TEM Sample Preparation of FeAl-Based Metal Matrix Composites using the Focused Ion Beam Miller. <i>Microscopy and Microanalysis</i> , <b>2000</b> , 6, 514-515	0.5	2

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- 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 5.6