Leigh Stephenson

List of Publications by Year
in descending order

37 papers	2,112 citations	331259 21 h-index	360668 35 g-index
40 all docs	40 docs citations	40 times ranked	1677 citing authors

#	Article	IF	Citations
1	Three-Dimensional Atomically Resolved Analytical Imaging with a Field Ion Microscope. Microscopy and Microanalysis, 2022, 28, 1264-1279.	0.2	5
2	Reflections on the Spatial Performance of Atom Probe Tomography in the Analysis of Atomic Neighborhoods. Microscopy and Microanalysis, 2022, 28, 1116-1126.	0.2	16
3	Status and Direction of Atom Probe Analysis of Frozen Liquids. Microscopy and Microanalysis, 2022, 28, 1150-1167.	0.2	8
4	Atom probe analysis of electrode materials for Li-ion batteries: challenges and ways forward. Journal of Materials Chemistry A, 2022, 10, 4926-4935.	5.2	20
5	Laser-equipped gas reaction chamber for probing environmentally sensitive materials at near atomic scale. PLoS ONE, 2022, 17, e0262543.	1.1	7
6	Hydride growth mechanism in zircaloy-4: Investigation of the partitioning of alloying elements. Materialia, 2021, 15, 101006.	1.3	14
7	Analytical Three-Dimensional Field Ion Microscopy of an Amorphous Glass FeBSi. Microscopy and Microanalysis, 2021, , 1-9.	0.2	2
8	Revealing atomic-scale vacancy-solute interaction in nickel. Scripta Materialia, 2021, 203, 114036.	2.6	7
9	Convolutional neural network-assisted recognition of nanoscale L12 ordered structures in face-centred cubic alloys. Npj Computational Materials, 2021, 7, .	3.5	11
10	Direct Imaging of Dopant and Impurity Distributions in 2D MoS₂. Advanced Materials, 2020, 32, e1907235.	11.1	26
11	Atomicâ€Scale Mapping of Impurities in Partially Reduced Hollow TiO₂ Nanowires. Angewandte Chemie - International Edition, 2020, 59, 5651-5655.	7.2	42
12	Dynamic Effects in Voltage Pulsed Atom Probe. Microscopy and Microanalysis, 2020, 26, 1133-1146.	0.2	6
13	Nanoglassâ€“Nanocrystal Compositeâ€”a Novel Material Class for Enhanced Strengthâ€“Plasticity Synergy. Small, 2020, 16, e2004400.	5.2	12
14	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.	1.1	115
15	Enabling near-atomicâ€“scale analysis of frozen water. Science Advances, 2020, 6, .	4.7	41
16	Solute hydrogen and deuterium observed at the near atomic scale in high-strength steel. Acta Materialia, 2020, 188, 108-120.	3.8	64
17	Hough Transform Based Accurate Composition Extractions From Correlation Histograms in Atom Probe Tomography. Microscopy and Microanalysis, 2019, 25, 324-325.	0.2	1
18	Direct Observation of Hydrogen in Cold-Drawn Pearlitic Steel Wires Using Cryogenic Atom Probe Tomography. Microscopy and Microanalysis, 2019, 25, 2522-2523.	0.2	1

#	Article	IF	Citations
19	Ti and its alloys as examples of cryogenic focused ion beam milling of environmentally-sensitive materials. Nature Communications, 2019, 10, 942.	5.8	89
20	Imaging individual solute atoms at crystalline imperfections in metals. New Journal of Physics, 2019, 21, 123020.	1.2	26
21	Characterizing solute hydrogen and hydrides in pure and alloyed titanium at the atomic scale. Acta Materialia, 2018, 150, 273-280.	3.8	81
22	Interfaces and defect composition at the near-atomic scale through atom probe tomography investigations. Journal of Materials Research, 2018, 33, 4018-4030.	1.2	35
23	The Laplace Project: An integrated suite for preparing and transferring atom probe samples under cryogenic and UHV conditions. PLoS ONE, 2018, 13, e0209211.	1.1	57
24	A near atomic-scale view at the composition of amyloid-beta fibrils by atom probe tomography. Scientific Reports, 2018, 8, 17615.	1.6	20
25	Clustering in Ageâ€Hardenable Aluminum Alloys. Advanced Engineering Materials, 2018, 20, 1800255.	1.6	58
26	Interpreting atom probe data from chromium oxide scales. Ultramicroscopy, 2015, 159, 354-359.	0.8	29
27	Atomically resolved tomography to directly inform simulations for structureâ€“property relationships. Nature Communications, 2014, 5, 5501.	5.8	53
28	Lattice Rectification in Atom Probe Tomography: Toward True Three-Dimensional Atomic Microscopy. Microscopy and Microanalysis, 2011, 17, 226-239.	0.2	58
29	Spatial Resolution in Atom Probe Tomography. Microscopy and Microanalysis, 2010, 16, 99-110.	0.2	153
30	Advances in the calibration of atom probe tomographic reconstruction. Journal of Applied Physics, 2009, 105, .	1.1	214
31	Qualification of the tomographic reconstruction in atom probe by advanced spatial distribution map techniques. Ultramicroscopy, 2009, 109, 815-824.	0.8	129
32	Origin of the spatial resolution in atom probe microscopy. Applied Physics Letters, 2009, 95, 034103.	1.5	80
33	Quantitative binomial distribution analyses of nanoscale likeâ€solute atom clustering and segregation in atom probe tomography data. Microscopy Research and Technique, 2008, 71, 542-550.	1.2	198
34	Estimation of the Reconstruction Parameters for Atom Probe Tomography. Microscopy and Microanalysis, 2008, 14, 296-305.	0.2	143
35	New Techniques for the Analysis of Fine-Scaled Clustering Phenomena within Atom Probe Tomography (APT) Data. Microscopy and Microanalysis, 2007, 13, 448-463.	0.2	281
36	Hydrogen and deuterium charging of site-specific specimen for atom probe tomography. Open Research Europe, 0, 1, 122.	2.0	3

#	Article	IF	Citations
37	Hydrogen and deuterium charging of lifted-out specimens for atom probe tomography. Open Research Europe, 0, 1, 122.	2.0	6