

Daniel E Perea

List of Publications by Year in descending order

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times ranked

7212
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#	ARTICLE	IF	CITATIONS
1	Compositional partitioning during early stages of oxidation of a uranium-molybdenum alloy. <i>Scripta Materialia</i> , 2022, 212, 114528.	5.2	5
2	Deciphering the Distribution and Crystal-Chemical Environment of Arsenic, Lead, Silica, Phosphorus, Tin, and Zinc in a Porous Ferrihydrite Grain Using Transmission Electron Microscopy and Atom Probe Tomography. <i>ACS Earth and Space Chemistry</i> , 2022, 6, 558-570.	2.7	4
3	Efficient conversion of low-concentration nitrate sources into ammonia on a Ru-dispersed Cu nanowire electrocatalyst. <i>Nature Nanotechnology</i> , 2022, 17, 759-767.	31.5	318
4	Visualizing the Nanoscale Oxygen and Cation Transport Mechanisms during the Early Stages of Oxidation of Fe-Cr-Ni Alloy Using In Situ Atom Probe Tomography. <i>Advanced Materials Interfaces</i> , 2022, 9, .	3.7	5
5	Element redistributions during early stages of oxidation in a Ni ₃₈ Cr ₂₂ Fe ₂₀ Mn ₁₀ Co ₁₀ multi-principal element alloy. <i>Scripta Materialia</i> , 2021, 194, 113609.	5.2	16
6	Spontaneous phase segregation of Sr ₂ NiO ₃ and SrNi ₂ O ₃ during SrNiO ₃ heteroepitaxy. <i>Science Advances</i> , 2021, 7, .	10.3	12
7	Reply to Comment on "A Mechanistic Understanding of Nonclassical Crystal Growth in Hydrothermally Synthesized Sodium Yttrium Fluoride Nanowires". <i>Chemistry of Materials</i> , 2021, 33, 3862-3864.	6.7	1
8	In Situ Atom Probe Tomography Study of The Influence of Deformation on Early Stages of Oxidation of Fe ₁₈ Cr ₁₀ Ni Alloy. <i>Microscopy and Microanalysis</i> , 2021, 27, 986-988.	0.4	0
9	Development of the Operando Atom Probe: The Influence of the electric field on Fe oxidation. <i>Microscopy and Microanalysis</i> , 2021, 27, 1516-1517.	0.4	0
10	Optimal Specimen Preparation for Correlative Atom Probe Tomography and Electron Microscopy of Environmentally Sensitive Materials. <i>Microscopy and Microanalysis</i> , 2021, 27, 2472-2474.	0.4	1
11	Prospects of mapping macromolecular structure and ionic gradients in hydrated biological specimens using Atom Probe Tomography. <i>Microscopy and Microanalysis</i> , 2021, 27, 1518-1518.	0.4	0
12	Formation of pyrophosphates across grain boundaries induces the formation of mismatched but oriented interfaces in silver phosphate polypods. <i>Applied Surface Science</i> , 2021, 563, 149980.	6.1	1
13	Nanoscale microstructure and chemistry of transparent gahnite glass-ceramics revealed by atom probe tomography. <i>Scripta Materialia</i> , 2021, 203, 114110.	5.2	7
14	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.	5.2	34
15	Nanoscale Perspectives of Metal Degradation via In Situ Atom Probe Tomography. <i>Topics in Catalysis</i> , 2020, 63, 1606-1622.	2.8	15
16	Rapid assessment of structural and compositional changes during early stages of zirconium alloy oxidation. <i>Npj Materials Degradation</i> , 2020, 4, .	5.8	14
17	Macro to Nanoscale Approaches to Study Mineral Transformations at the Liquid, Organic, Biological Interface.. <i>Microscopy and Microanalysis</i> , 2020, 26, 1568-1569.	0.4	0
18	In-situ and In-operando Cobalt Oxidation Studied by Atom Probe Tomography. <i>Microscopy and Microanalysis</i> , 2020, 26, 1872-1873.	0.4	0

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19	Advanced Cryo-FIB Specimen Preparation and Handling of Environmentally Sensitive Materials for APT Analysis. <i>Microscopy and Microanalysis</i> , 2020, 26, 2094-2095.	0.4	1
20	Petrogenesis, alteration, and shock history of intermediate shergottite Northwest Africa 7042: Evidence for hydrous magmatism on Mars?. <i>Geochimica Et Cosmochimica Acta</i> , 2020, 283, 103-123.	3.9	3
21	Directional Gateway to Metal Oxidation: 3D Chemical Mapping Unfolds Oxygen Diffusional Pathways in Rhodium Nanoparticles. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 3144-3151.	4.6	14
22	Cryo-based structural characterization and growth model of salt film on metal. <i>Corrosion Science</i> , 2020, 174, 108812.	6.6	15
23	A Mechanistic Understanding of Nonclassical Crystal Growth in Hydrothermally Synthesized Sodium Yttrium Fluoride Nanowires. <i>Chemistry of Materials</i> , 2020, 32, 2753-2763.	6.7	27
24	Tomographic mapping of the nanoscale water-filled pore structure in corroded borosilicate glass. <i>Npj Materials Degradation</i> , 2020, 4, .	5.8	29
25	Calcareous organic matter coatings sequester siderophores in alkaline soils. <i>Science of the Total Environment</i> , 2020, 724, 138250.	8.0	14
26	Direct Observation of Zirconium Alloy Oxidation at the Nanoscale. <i>Microscopy and Microanalysis</i> , 2019, 25, 318-319.	0.4	0
27	Exploring New Science Domains with Atom Probe Tomography Enabled by an Environmental Transfer Hub. <i>Microscopy and Microanalysis</i> , 2019, 25, 276-277.	0.4	1
28	Advanced FIB-based Preparation of Cryogenically-prepared Specimens for APT Analysis. <i>Microscopy and Microanalysis</i> , 2019, 25, 878-879.	0.4	1
29	Surface/Subsurface Interactions During Rh Oxidation Revealed by Atom Probe Tomography and Microscopy. <i>Microscopy and Microanalysis</i> , 2019, 25, 330-331.	0.4	0
30	New Science with Atom Probe Tomography Enabled via an Environmental Transfer Hub. <i>Microscopy and Microanalysis</i> , 2019, 25, 340-341.	0.4	0
31	Visualizing the iron atom exchange front in the Fe(II)-catalyzed recrystallization of goethite by atom probe tomography. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 2866-2874.	7.1	52
32	Cryogenic specimens for nanoscale characterization of solid-liquid interfaces. <i>MRS Bulletin</i> , 2019, 44, 949-955.	3.5	12
33	Effects of long-term thermal aging on bulk and local mechanical behavior of ferritic-austenitic duplex stainless steels. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 720, 130-139.	5.6	21
34	Resolving Iron(II) Sorption and Oxidative Growth on Hematite (001) Using Atom Probe Tomography. <i>Journal of Physical Chemistry C</i> , 2018, 122, 3903-3914.	3.1	26
35	Characterization of CoCu- and CoMn-Based Catalysts for the Fischer-Tropsch Reaction Toward Chain-Lengthened Oxygenates. <i>Topics in Catalysis</i> , 2018, 61, 1016-1023.	2.8	10
36	Three-dimensional nanoscale characterisation of materials by atom probe tomography. <i>International Materials Reviews</i> , 2018, 63, 68-101.	19.3	119

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37	The role of metal vacancies during high-temperature oxidation of alloys. <i>Npj Materials Degradation</i> , 2018, 2, .	5.8	35
38	A method for site-specific and cryogenic specimen fabrication of liquid/solid interfaces for atom probe tomography. <i>Ultramicroscopy</i> , 2018, 194, 89-99.	1.9	64
39	Probing the Origin of Interfacial Carriers in SrTiO ₃ ∕LaCrO ₃ Superlattices. <i>Chemistry of Materials</i> , 2017, 29, 1147-1155.	6.7	19
40	Effect of aging temperature on phase decomposition and mechanical properties in cast duplex stainless steels. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 690, 365-377.	5.6	26
41	An environmental transfer hub for multimodal atom probe tomography. <i>Advanced Structural and Chemical Imaging</i> , 2017, 3, 12.	4.0	47
42	Overall Water Splitting with Room-Temperature Synthesized NiFe Oxyfluoride Nanoporous Films. <i>ACS Catalysis</i> , 2017, 7, 8406-8412.	11.2	91
43	Heterogeneous Two-Phase Pillars in Epitaxial NiFe ₂ O ₄ ∕LaFeO ₃ Nanocomposites. <i>Advanced Materials Interfaces</i> , 2017, 4, 1700396.	3.7	5
44	Visualizing and Quantifying Spinodal Decomposition in a Duplex Stainless Steel. <i>Microscopy and Microanalysis</i> , 2017, 23, 660-661.	0.4	2
45	Characterization of electrical properties in axial Si-Ge nanowire heterojunctions using off-axis electron holography and atom-probe tomography. <i>Journal of Applied Physics</i> , 2016, 120, .	2.5	10
46	Atom probe tomography of nanoscale electronic materials. <i>MRS Bulletin</i> , 2016, 41, 30-34.	3.5	15
47	Pulsed Photothermal Heating of One-Dimensional Nanostructures. <i>Journal of Physical Chemistry C</i> , 2016, 120, 21730-21739.	3.1	3
48	Atom Probe Tomographic Mapping Directly Reveals the Atomic Distribution of Phosphorus in Resin Embedded Ferritin. <i>Scientific Reports</i> , 2016, 6, 22321.	3.3	56
49	Nanometer-Scale Chemistry of a Calcite Biomineralization Template: Implications for Skeletal Composition and Nucleation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 12934-12939.	7.1	78
50	Uranium isotopic ratio measurements of U ₃ O ₈ reference materials by atom probe tomography. <i>Journal of Environmental Radioactivity</i> , 2016, 153, 206-213.	1.7	7
51	Probing the Organic/Inorganic Interface of the Ferritin Protein using Atom Probe Tomography. <i>Microscopy and Microanalysis</i> , 2015, 21, 515-516.	0.4	0
52	Characterization of Element Partitioning at the Austenite/Ferrite Interface of asCast CF-3 and CF-8 Duplex Stainless Steels. <i>Microscopy and Microanalysis</i> , 2015, 21, 365-366.	0.4	6
53	Singlet-Oxygen Generation from Individual Semiconducting and Metallic Nanostructures during Near-Infrared Laser Trapping. <i>ACS Photonics</i> , 2015, 2, 559-564.	6.6	14
54	Enhancing magnesite formation at low temperature and high CO ₂ pressure: The impact of seed crystals and minor components. <i>Chemical Geology</i> , 2015, 395, 119-125.	3.3	16

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55	Determining the location and nearest neighbours of aluminium in zeolites with atom probe tomography. <i>Nature Communications</i> , 2015, 6, 7589.	12.8	139
56	Effects of laser energy and wavelength on the analysis of LiFePO ₄ using laser assisted atom probe tomography. <i>Ultramicroscopy</i> , 2015, 148, 57-66.	1.9	64
57	Bending-Induced Symmetry Breaking of Lithiation in Germanium Nanowires. <i>Nano Letters</i> , 2014, 14, 4622-4627.	9.1	92
58	Understanding Fayalite Chemistry using Electron Microscopy and Atom Probe Tomography. <i>Microscopy and Microanalysis</i> , 2014, 20, 998-999.	0.4	1
59	In-situ TEM Study of Internal and External Stress on Lithiation behavior of High Capacity Anode Materials with a Large Volume Change. <i>Microscopy and Microanalysis</i> , 2014, 20, 1536-1537.	0.4	0
60	Catalyst Composition and Impurity-Dependent Kinetics of Nanowire Heteroepitaxy. <i>ACS Nano</i> , 2013, 7, 7689-7697.	14.6	11
61	Demonstration of an Electrochemical Liquid Cell for Operando Transmission Electron Microscopy Observation of the Lithiation/Delithiation Behavior of Si Nanowire Battery Anodes. <i>Nano Letters</i> , 2013, 13, 6106-6112.	9.1	265
62	Electron-Rich Driven Electrochemical Solid-State Amorphization in Li ^x Si Alloys. <i>Nano Letters</i> , 2013, 13, 4511-4516.	9.1	51
63	Identification of an Intrinsic Source of Doping Inhomogeneity in Vapor-Liquid-Solid-Grown Nanowires. <i>Nano Letters</i> , 2013, 13, 199-206.	9.1	54
64	Electronic Origin for the Phase Transition from Amorphous Li ₁₅ Si ₄ to Crystalline Li ₁₅ Si ₄ . <i>ACS Nano</i> , 2013, 7, 6303-6309.	14.6	135
65	Mapping electrostatic profiles across axial p-n junctions in Si nanowires using off-axis electron holography. <i>Applied Physics Letters</i> , 2013, 103, .	3.3	19
66	Mapping the Complex Phase Formation at the Surface of Supercritical CO Reacted Fayalite for Geologic Sequestration of Greenhouse Gases. <i>Microscopy and Microanalysis</i> , 2013, 19, 976-977.	0.4	0
67	Microscopic Characterization of Heterogeneous Catalysts in 3-D and In-situ/Ex-situ. <i>Microscopy and Microanalysis</i> , 2013, 19, 1662-1663.	0.4	0
68	Mapping the Electrostatic Profile Across Axial p-n Junctions in Si nanowires using Off-Axis Electron Holography. <i>Microscopy and Microanalysis</i> , 2012, 18, 1826-1827.	0.4	0
69	Controlling axial p-n heterojunction abruptness through catalyst alloying in vapor-liquid-solid grown semiconductor nanowires. <i>Microscopy and Microanalysis</i> , 2012, 18, 1860-1861.	0.4	0
70	Correlation and Morphology of Dopant Decomposition in Mn and Co Codoped Ge Epitaxial Films. <i>Journal of Physical Chemistry C</i> , 2012, 116, 276-280.	3.1	7
71	Axial SiGe Heteronanowire Tunneling Field-Effect Transistors. <i>Nano Letters</i> , 2012, 12, 5850-5855.	9.1	40
72	Controlling Heterojunction Abruptness in VLS-Grown Semiconductor Nanowires via in situ Catalyst Alloying. <i>Nano Letters</i> , 2011, 11, 3117-3122.	9.1	91

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73	Minority Carrier Lifetimes and Surface Effects in VLS-Grown Axial p-n Junction Silicon Nanowires. <i>Advanced Materials</i> , 2011, 23, 4306-4311.	21.0	32
74	Correlating dopant distributions and electrical properties of boron-doped silicon nanowires. <i>Applied Physics Letters</i> , 2009, 95, .	3.3	44
75	Nonuniform Nanowire Doping Profiles Revealed by Quantitative Scanning Photocurrent Microscopy. <i>Advanced Materials</i> , 2009, 21, 3067-3072.	21.0	113
76	Direct measurement of dopant distribution in an individual vapour-liquid-solid nanowire. <i>Nature Nanotechnology</i> , 2009, 4, 315-319.	31.5	379
77	Relative Influence of Surface States and Bulk Impurities on the Electrical Properties of Ge Nanowires. <i>Nano Letters</i> , 2009, 9, 3268-3274.	9.1	115
78	Alternative catalysts for VSS growth of silicon and germanium nanowires. <i>Journal of Materials Chemistry</i> , 2009, 19, 849.	6.7	136
79	Tomographic analysis of dilute impurities in semiconductor nanostructures. <i>Journal of Solid State Chemistry</i> , 2008, 181, 1642-1649.	2.9	62
80	High-resolution detection of Au catalyst atoms in Si nanowires. <i>Nature Nanotechnology</i> , 2008, 3, 168-173.	31.5	575
81	Three-Dimensional Nanoscale Composition Mapping of Semiconductor Nanowires. <i>Nano Letters</i> , 2006, 6, 181-185.	9.1	214
82	Composition analysis of single semiconductor nanowires using pulsed-laser atom probe tomography. <i>Applied Physics A: Materials Science and Processing</i> , 2006, 85, 271-275.	2.3	47
83	Comparison of Analytical Techniques for Purity Evaluation of Single-Walled Carbon Nanotubes. <i>Journal of the American Chemical Society</i> , 2005, 127, 3439-3448.	13.7	309
84	Synthesis and Characterization of Water Soluble Single-Walled Carbon Nanotube Graft Copolymers. <i>Journal of the American Chemical Society</i> , 2005, 127, 8197-8203.	13.7	325
85	Extinction Coefficients and Purity of Single-Walled Carbon Nanotubes. <i>Journal of Nanoscience and Nanotechnology</i> , 2004, 4, 995-1004.	0.9	26
86	Preparation of Single-Walled Carbon Nanotube Reinforced Polystyrene and Polyurethane Nanofibers and Membranes by Electrospinning. <i>Nano Letters</i> , 2004, 4, 459-464.	9.1	502
87	Atom probe tomography and transmission electron microscopy: a powerful combination to characterize the speciation and distribution of Cu in organic matter. <i>Environmental Sciences: Processes and Impacts</i> , 0, , .	3.5	1