Phil Fraundorf

List of Publications by Year
in descending order

97	1,114	430442	414034
papers	citations	18 h-index	32 g-index

97	97	97	571
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Discovery of Nucler Tracks in Interplanetary Dust. Science, 1984, 226, 1432-1434.	6.0	122
2	Interplanetary dust in the transmission electron microscope: diverse materials from the early solar system. Geochimica Et Cosmochimica Acta, 1981, 45, 915-943.	1.6	86
3	Carbon Compounds in Interplanetary Dust: Evidence for Formation by Heterogeneous Catalysis. Science, 1984, 223, 56-58.	6.0	78
4	Noble Gases in Stratospheric Dust Particles: Confirmation of Extraterrestrial Origin. Science, 1981, 211, 383-386.	6.0	71
5	The reduction of dislocations in oxygen implanted siliconâ€onâ€insulator layers by sequential implantation and annealing. Journal of Applied Physics, 1988, 63, 4933-4936.	1.1	70
6	Infrared absorption study on carbon and oxygen behavior in Czochralski silicon crystals. Applied Physics Letters, 1985, 46, 941-943.	1.5	60
7	The distribution of temperature maxima for micrometeorites decelerated in the Earth's atmosphere without melting. Geophysical Research Letters, 1980, 7, 765-768.	1.5	52
8	Stardust in the TEM. Ultramicroscopy, 1989, 27, 401-411.	0.8	41
9	Ultrafine sputter-deposited Pt nanoparticles for triiodide reduction in dye-sensitized solar cells: impact of nanoparticle size, crystallinity and surface coverage on catalytic activity. Nanotechnology, 2012, 23, 485405.	1.3	40
10	Clustering of oxygen atoms around carbon in silicon. Journal of Applied Physics, 1985, 58, 4049-4055.	1.1	35
11	The Effects of Thermal History during Growth on O Precipitation in Czochralski Silicon. Journal of the Electrochemical Society, 1985, 132, 1701-1704.	1.3	34
12	Synthesis of single-walled carbon nanotubes in oxy-fuel inverse diffusion flames with online diagnostics. Proceedings of the Combustion Institute, 2007, 31, 1865-1872.	2.4	32
13	The survival of solar flare tracks in interplanetary dust silicates on deceleration in the Earth's atmosphere. Journal of Geophysical Research, 1982, 87, A409.	3.3	26
14	Tubular Reactor Synthesis of Doped Nanostructured Titanium Dioxide and Its Enhanced Activation by Coronas and Soft X-rays. Industrial & Engineering Chemistry Research, 2005, 44, 5213-5220.	1.8	22
15	Lattice parameters from direct-space images at two tilts. Ultramicroscopy, 2003, 94, 245-262.	0.8	20
16	Making sense of nanocrystal lattice fringes. Journal of Applied Physics, 2005, 98, 114308.	1.1	20
17	Single-walled carbon nanotube formation on iron oxide catalysts in diffusion flames. Journal of Nanoparticle Research, 2010, 12, 2125-2133.	0.8	20
18	Determining the 3D lattice parameters of nanometer-sized single crystals from images. Ultramicroscopy, 1987, 22, 225-229.	0.8	19

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19	The Core Structure of Presolar Graphite Onions. Astrophysical Journal, 2002, 578, L153-L156.	1.6	19
20	Search for fission tracks from superheavy elements in Allende. Earth and Planetary Science Letters, 1977, 37, 285-295.	1.8	16
21	Stereo analysis of single crystal electron diffraction data. Ultramicroscopy, 1981, 6, 227-235.	0.8	14
22	Stereo analysis of single crystal electron diffraction data. Ultramicroscopy, 1981, 6, 227-235.	0.8	14
23	Infrared spectroscopy of interplanetary dust in the laboratory. Icarus, 1981, 47, 368-380.	1.1	13
24	TEM study of B- and Er-containing dispersoids in rapidly solidified dispersion-strengthened titanium and titanium aluminide alloys. Ultramicroscopy, 1991, 37, 310-317.	0.8	13
25	On-line Digital-darkfield TEM Determination of Nanocrystal 3D-lattices. Microscopy and Microanalysis, 2017, 23, 238-239.	0.2	13
26	Structural fingerprinting in the transmission electron microscope: overview and opportunities to implement enhanced strategies for nanocrystal identification. Zeitschrift Fur Kristallographie - Crystalline Materials, 2007, 222, 634-645.	0.4	12
27	Infra red quantum dot photolithography. Journal of Sol-Gel Science and Technology, 2006, 40, 101-107.	1.1	10
28	Stereo analysis of electron diffraction from known crystals. Ultramicroscopy, 1981, 7, 203-205.	0.8	9
29	Digital Darkfield Decompositions. Microscopy and Microanalysis, 2004, 10, 300-301.	0.2	9
30	An inventory of particles from stratospheric collectors: Extraterrestrial and otherwise. Journal of Geophysical Research, 1982, 87, A403.	3.3	8
31	Optical spectroscopy of interplanetary dust collected in the Earth's stratosphere. Nature, 1980, 286, 866-868.	13.7	7
32	The instrument response function in air-based scanning tunneling microscopy. Ultramicroscopy, 1991, 37, 125-129.	0.8	7
33	Heat capacity in bits. American Journal of Physics, 2003, 71, 1142-1151.	0.3	6
34	Localizing periodicity in near-field images. Physical Review Letters, 1990, 64, 1031-1034.	2.9	5
35	Ten Nanometer Surface Intrusions in Room-Temperature Silicon. Electrochemical and Solid-State Letters, 2002, 5, G83.	2.2	5
36	Spiral Powder Overlays. Microscopy and Microanalysis, 2004, 10, 1356-1357.	0.2	5

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37	Thermal roots of correlationâ€based complexity. Complexity, 2008, 13, 18-26.	0.9	5
38	Synthesis and Characterization of Srilankite Nanowires. Journal of Nanoscience and Nanotechnology, 2008, 8, 1481-1488.	0.9	5
39	Characterization of nanostructured pristine and Fe- and V-doped titania synthesized by atomization and bubbling. Journal of Industrial and Engineering Chemistry, 2014, 20, 558-563.	2.9	5
40	An Investigation of the Limit of Detection and the Scattering Dependence of the Optical Precipitate Profiler (OPP). Materials Research Society Symposia Proceedings, 1998, 510, 627.	0.1	4
41	Fringe Visibility Maps. Microscopy and Microanalysis, 2001, 7, 272-273.	0.2	4
42	Image-based nanocrystallography by means of transmission electron goniometry. Nonlinear Analysis: Theory, Methods & Applications, 2005, 63, e1323-e1331.	0.6	4
43	Digital Darkfield Tableaus. Microscopy and Microanalysis, 2006, 12, 1010-1011.	0.2	4
44	Fraction Crystalline from Electron Powder Patterns of Unlayered Graphene in Solidified Carbon Rain. Microscopy and Microanalysis, 2020, 26, 2838-2840.	0.2	4
45	Iron doped amorphous hydrogenated carbon nitride?. Solid State Communications, 1989, 71, 801-803.	0.9	3
46	Lattice Fringe Visibility after Tilt. Microscopy and Microanalysis, 2000, 6, 1040-1041.	0.2	3
47	Probability of Seeing (001) Cross-Fringes in a Random Cubic Nanocrystal Image. Microscopy and Microanalysis, 2000, 6, 1038-1039.	0.2	3
48	Fringe-Covariance "Fingerprinting" of Nanoparticle Lattice Images. Microscopy and Microanalysis, 2004, 10, 1262-1263.	0.2	3
49	Powder Patterns from Nanocrystal Lattice Images. Microscopy and Microanalysis, 2004, 10, 1254-1255.	0.2	3
50	Single-Slice Nanoworlds Online. Microscopy and Microanalysis, 2016, 22, 1442-1443.	0.2	3
51	Online Size Characterization of Nanofibers and Nanotubes. , 2007, , 212-245.		3
52	Octahedral inclusions showing evidence of crystallinity in Czochralski silicon. Journal of Crystal Growth, 1986, 76, 383-387.	0.7	2
53	Algorithms for Bayesian background-subtracted Fourier darkfield imaging. Ultramicroscopy, 1991, 37, 72-78.	0.8	2
54	High-Resolution Transmission Electron Microscope Analysis of Tungsten Carbide Thin Films. Materials Research Society Symposia Proceedings, 1998, 520, 217.	0.1	2

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55	The 3d Parameters Of A (Nano)Crystal From Lattice Images At Two Tilts. Microscopy and Microanalysis, 1999, 5, 188-189.	0.2	2
56	Analogs for Unlayered-Graphene Droplet-Formation in Stellar Atmospheres.. Microscopy and Microanalysis, 2016, 22, 1816-1817.	0.2	2
57	Fourier transform â€œdarkfieldâ€•techniques. Proceedings Annual Meeting Electron Microscopy Society of America, 1989, 47, 122-123.	0.0	2
58	Roles for A Precursor Oxide Phase in The Siting, Shaping, and Shrinking of Oxygen Precipitates. Materials Research Society Symposia Proceedings, 1985, 59, 281.	0.1	1
59	The Microstructure of Fe7C3 Formed at 300Â°C by Plasma Enhanced Chemical Vapor Deposition (PECVD). Materials Research Society Symposia Proceedings, 1993, 313, 691.	0.1	1
60	Arms (One vs Two) and the Physicist. Physics Today, 1994, 47, 14-15.	0.3	1
61	Cross-fringe Versus Single-fringe Probabilities. Microscopy and Microanalysis, 2005, 11, .	0.2	1
62	Identifying unknown nanocrystals by fringe fingerprinting in two dimensions and free-access crystallographic databases. , 2005, 6000, 206.		1
63	Crystal Structure Visualizations in Three Dimensions with Database Support. Materials Research Society Symposia Proceedings, 2005, 909, 1.	0.1	1
64	Nanoworld Webquests with Peer Review. Microscopy and Microanalysis, 2006, 12, 1700-1701.	0.2	1
65	Picometer Scale Differences of Lattice Spacing In TEM Images. Microscopy and Microanalysis, 2006, 12, 1008-1009.	0.2	1
66	Image-based nanocrystallography with online database support. , 2006, , .		1
67	Exploring Boltzmann-Factor Distributions of Precipitation-Nuclei in the TEM.. Microscopy and Microanalysis, 2016, 22, 942-943.	0.2	1
68	Laboratory evidence of slow-cooling for carbon droplets in red-giant atmospheres. Microscopy and Microanalysis, 2017, 23, 2192-2193.	0.2	1
69	DFT study of â€œunlayered graphene solidâ€•formation, in liquid carbon droplets at low pressures. MRS Advances, 2021, 6, 203-208.	0.5	1
70	The rates of unlayered graphene formation in a supercooled carbon melt at low pressure. MRS Advances, 2021, 6, 713.	0.5	1
71	Electron diffraction patterns intermediate along the continuum between single crystal and â€˜powderâ€™. Micron (1969), 1982, 13, 49-53.	0.1	0
72	Uncertainties in Stereo Lattice Imaging. Microscopy and Microanalysis, 2001, 7, 270-271.	0.2	0

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73	Goniometry of Direct Lattice Vectors Supporting Students' Comprehension of Crystallographic Core Concepts and Demonstrating Image-Based Nanocrystallography. Materials Research Society Symposia Proceedings, 2004, 827, 291.	0.1	0
74	Students as Nanodetectives in a Variety of Introductory Science Classes. Microscopy and Microanalysis, 2004, 10, 1564-1565.	0.2	0
75	Spiral Powder Overlays. Microscopy Today, 2005, 13, 8-11.	0.2	0
76	Lattice Fringe Signatures of Epitaxy on Nanotubes. Microscopy and Microanalysis, 2006, 12, 664-665.	0.2	0
77	Darkfield Brightfield and Energy-Filtered Nanotube Image Profiles. Microscopy and Microanalysis, 2006, 12, 1686-1687.	0.2	0
78	Coherence Effects in Electron Diffraction from Presolar Graphenes. Microscopy and Microanalysis, 2006, 12, 596-597.	0.2	0
79	A simplex model for layered niche networks. Complexity, 2008, 13, 29-39.	0.9	0
80	Quantum 1/f Biochemical Detection Limits in THz Signatures Revealed by Scanning Tunneling Microscopy Currents. IEEE Sensors Journal, 2008, 8, 1020-1027.	2.4	0
81	Study of Au Nanoparticle Catalyzed Growth Processes of ZnO Nanowires. Microscopy and Microanalysis, 2008, 14, 200-201.	0.2	0
82	Orthogonal random layer lattices or random offset phase transition?. Microscopy and Microanalysis, 2012, 18, 1260-1261.	0.2	0
83	HREM/SAED evidence for template-nucleation of c-ZrO2/C inclusions in ZrB2. Microscopy and Microanalysis, 2012, 18, 1944-1945.	0.2	0
84	Fast periodicity-analysis with â€œ4spotsâ€•and ImageJ. Microscopy and Microanalysis, 2012, 18, 1256-1257.	0.2	0
85	Digital Darkfield Analysis of Lattice Fringe Images with ImageJ. Microscopy and Microanalysis, 2014, 20, 824-825.	0.2	0
86	RGB Analysis of Wedge Angles Around a Perforation in Silicon. Microscopy and Microanalysis, 2014, 20, 826-827.	0.2	0
87	Some novel uses for three-dimensional data from SPM and stereo SEM. Microscopy and Microanalysis, 2017, 23, 1178-1179.	0.2	0
88	Characterizing Unlayered-Graphene in Homemade CoreRim Carbon Raindrops. Microscopy and Microanalysis, 2018, 24, 2056-2057.	0.2	0
89	Task-Layer Multiplicity as a Measure of Community Level Health. Complexity, 2019, 2019, 1-8.	0.9	0
90	The detection of latent nuclear particle tracks in some common minerals with conventional TEM. Proceedings Annual Meeting Electron Microscopy Society of America, 1978, 36, 480-481.	0.0	0

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91	EXPERIMENTAL CONSTRAINTS ON THE EXISTENCE OF SUPERHEAVY ELEMENTS IN ALLENDE ACID RESIDUES. , 1978, , 204-205.		0
92	Finding the Good Stuff in Hrem Images. Proceedings Annual Meeting Electron Microscopy Society of America, 1990, 48, 542-543.	0.0	0
93	Finding noise-related artifacts in scanned-probe microscope images. Proceedings Annual Meeting Electron Microscopy Society of America, 1993, 51, 524-525.	0.0	0
94	In-situ measurements of scanned probe tip shape with etched nuclear tracks. Proceedings Annual Meeting Electron Microscopy Society of America, 1993, 51, 528-529.	0.0	0
95	Bayesian removal of noise for increased sensitivity in vector pattern recognition lattice imaging of interfaces. Proceedings Annual Meeting Electron Microscopy Society of America, 1993, 51, 994-995.	0.0	0
96	Quantitative footprints, in size & number density, of a TEM search for defects in VLSI silicon. Proceedings Annual Meeting Electron Microscopy Society of America, 1994, 52, 850-851.	0.0	0
97	Evidence for a raised rim on pits in mica induced by keV/nucleon ions. Proceedings Annual Meeting Electron Microscopy Society of America, 1995, 53, 390-391.	0.0	0