

# Gene E Ice

## List of Publications by Year in descending order

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52  
papers

2,023  
citations

361413

20  
h-index

289244

40  
g-index

57  
all docs

57  
docs citations

57  
times ranked

1640  
citing authors

#	ARTICLE	IF	CITATIONS
1	The Race to X-ray Microbeam and Nanobeam Science. <i>Science</i> , 2011, 334, 1234-1239.	12.6	265
2	Automated indexing for texture and strain measurement with broad-bandpass x-ray microbeams. <i>Journal of Applied Physics</i> , 1999, 86, 5249-5255.	2.5	241
3	Observation of the Auger Resonant Raman Effect. <i>Physical Review Letters</i> , 1980, 45, 1937-1940.	7.8	170
4	Atomic inner-shell level energies determined by absorption spectrometry with synchrotron radiation. <i>Physical Review A</i> , 1980, 22, 520-528.	2.5	155
5	Elliptical x-ray microprobe mirrors by differential deposition. <i>Review of Scientific Instruments</i> , 2000, 71, 2635-2639.	1.3	123
6	Threshold Excitation of Short-Lived Atomic Inner-Shell Hole States with Synchrotron Radiation. <i>Physical Review Letters</i> , 1985, 54, 1142-1145.	7.8	119
7	X-ray microdiffraction study of growth modes and crystallographic tilts in oxide films on metal substrates. <i>Nature Materials</i> , 2003, 2, 487-492.	27.5	114
8	Short focal length Kirkpatrick-Baez mirrors for a hard x-ray nanoprobe. <i>Review of Scientific Instruments</i> , 2005, 76, 113701.	1.3	105
9	Tutorial on x-ray microLaue diffraction. <i>Materials Characterization</i> , 2009, 60, 1191-1201.	4.4	64
10	Plastic behavior of a nickel-based alloy under monotonic-tension and low-cycle-fatigue loading. <i>International Journal of Plasticity</i> , 2008, 24, 1440-1456.	8.8	58
11	The three-dimensional X-ray crystal microscope: A new tool for materials characterization. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2004, 35, 1963-1967.	2.2	53
12	Achromatic nested Kirkpatrick-Baez mirror optics for hard X-ray nanofocusing. <i>Journal of Synchrotron Radiation</i> , 2011, 18, 575-579.	2.4	42
13	Kirkpatrick-Baez microfocusing optics for thermal neutrons. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2005, 539, 312-320.	1.6	40
14	Fatigue-induced reversible/irreversible structural-transformations in a Ni-based superalloy. <i>International Journal of Plasticity</i> , 2010, 26, 1124-1137.	8.8	35
15	Small-displacement monochromator for microdiffraction experiments. <i>Review of Scientific Instruments</i> , 2000, 71, 2001-2006.	1.3	33
16	Polychromatic microdiffraction characterization of defect gradients in severely deformed materials. <i>Micron</i> , 2009, 40, 28-36.	2.2	29
17	Hard X-ray nano-focusing with Montel mirror optics. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2011, 649, 169-171.	1.6	29
18	Slip-System-Related Dislocation Study from In-Situ Neutron Measurements. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2008, 39, 3079-3088.	2.2	27

#	ARTICLE	IF	CITATIONS
19	Three-Dimensional X-Ray Structural Microscopy Using Polychromatic Microbeams. MRS Bulletin, 2004, 29, 170-176.	3.5	25
20	At the limit of polychromatic microdiffraction. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 524, 3-9.	5.6	23
21	Nondestructive three-dimensional characterization of grain boundaries by X-ray crystal microscopy. Ultramicroscopy, 2005, 103, 199-204.	1.9	20
22	Neutron and X-ray diffraction studies and cohesive interface model of the fatigue crack deformation behavior. Philosophical Magazine Letters, 2008, 88, 553-565.	1.2	20
23	Design challenges and performance of nested neutron mirrors for microfocusing on SNAP. Journal of Applied Crystallography, 2009, 42, 1004-1008.	4.5	20
24	Vanishing effect in post-collision interaction during photon-excited Coster-Kronig decay. Physical Review A, 1987, 35, 3966-3969.	2.5	19
25	Adapting polychromatic X-ray microdiffraction techniques to high-pressure research: energy scan approach. Journal of Synchrotron Radiation, 2005, 12, 608-617.	2.4	19
26	X-ray microdiffraction and EBSD study of FSP induced structural/phase transitions in a Ni-based superalloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 524, 10-19.	5.6	18
27	3D x-ray microprobe investigation of local dislocation densities and elastic strain gradients in a NiAl-Mo composite and exposed Mo micropillars as a function of prestrain. Journal of Materials Research, 2010, 25, 199-206.	2.6	18
28	Three-Dimensional Micron-Resolution X-Ray Laue Diffraction Measurement of Thermal Grain-Evolution in Aluminum. Materials Science Forum, 2004, 467-470, 1373-1378.	0.3	17
29	The Future of Spatially-Resolved Polychromatic Neutron and X-Ray Microdiffraction. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2008, 39, 3058-3064.	2.2	17
30	Cyclic-loading-induced accumulation of geometrically necessary dislocations near grain boundaries in an Ni-based superalloy. Jom, 2009, 61, 53-58.	1.9	14
31	<i>In-situ</i> synchrotron micro-diffraction study of surface, interface, grain structure, and strain/stress evolution during Sn whisker/hillock formation. Journal of Applied Physics, 2016, 119, .	2.5	11
32	Profile coating for KB mirror applications at the Advanced Photon Source. , 2002, 4782, 104.		10
33	The role of crystal orientation and surface proximity in the self-similar behavior of deformed Cu single crystals. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 528, 28-31.	5.6	10
34	Texture crossover: Trace from multiple grains to a subgrain. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 528, 3-10.	5.6	8
35	Development and applications of a two-dimensional tip-tilting stage system with nanoradian-level positioning resolution. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 649, 114-117.	1.6	8
36	X-ray Laue Diffraction Microscopy in 3D at the Advanced Photon Source. , 2014, , 53-81.		8

#	ARTICLE	IF	CITATIONS
37	Nested mirrors for x-rays and neutrons. , 2009, , .		6
38	Microbeam, timing and signal-resolved studies of nuclear materials with synchrotron X-ray sources. Journal of Nuclear Materials, 2012, 425, 233-237.	2.7	5
39	Mirrors for nanofocusing x-ray beams. , 2002, , .		4
40	<title>Monochromators for small cross-section x-ray beams from high heat flux synchrotron sources</title>. , 1996, 2856, 226.		3
41	At the limit of nondispersive micro- and nanofocusing mirror optics. , 2004, , .		3
42	Diffuse X-ray scattering from tiny sample volumes. Zeitschrift Fur Kristallographie - Crystalline Materials, 2005, 220, 1076-1081.	0.8	3
43	Diffuse X-ray scattering from tiny sample volumes. Zeitschrift FÅ¼r Kristallographie, 2005, 220, .	1.1	3
44	Mutiscale Plastic Deformation near a Fatigue Crack from Diffraction. Solid State Phenomena, 2007, 129, 151-156.	0.3	3
45	Diffraction Analysis of Defects: State of the Art. , 2014, , 1-52.		3
46	2D and 3D X-Ray Structural Microscopy Using Submicron-Resolution Laue Microdiffraction. Materials Research Society Symposia Proceedings, 2004, 840, Q7.1.1.	0.1	1
47	X-Ray Study of Pd<sub>40</sub>Cu<sub>30</sub>Ni<sub>10</sub>P<sub>20</sub> Bulk Metallic Glass Brazing Filler for Ti-6Al-7Nb Alloy. Materials Science Forum, 2007, 539-543, 1983-1987.	0.3	1
48	3D Micron-Resolution Laue Diffraction. , 0, , 353-370.		0
49	Plenary Special Lectures. Microscopy and Microanalysis, 2011, 17, 32-34.	0.4	0
50	Beyond ensemble averages. Nature Materials, 2015, 14, 657-658.	27.5	0
51	Application of the 3D X-Ray Crystal Microscope to Study Mesoscale Structure of Materials. Materials Research Society Symposia Proceedings, 2003, 779, 5361.	0.1	0
52	The 3D X-Ray Crystal Microscope: An Unprecedented Tool for ICME. , 0, , 183-188.		0