

Jon C Geist

List of Publications by Year in descending order

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103
papers

1,827
citations

257450

24
h-index

302126

39
g-index

110
all docs

110
docs citations

110
times ranked

1251
citing authors

#	ARTICLE	IF	CITATIONS
1	Quantum efficiency stability of silicon photodiodes. <i>Applied Optics</i> , 1987, 26, 5284.	2.1	138
2	Micromachined thermal radiation emitter from a commercial CMOS process. <i>IEEE Electron Device Letters</i> , 1991, 12, 57-59.	3.9	87
3	Influence of Black Coatings on Pyroelectric Detectors. <i>Applied Optics</i> , 1974, 13, 1171.	2.1	82
4	Generalized Temperature Measurement Equations for Rhodamine B Dye Solution and Its Application to Microfluidics. <i>Analytical Chemistry</i> , 2009, 81, 8260-8263.	6.5	77
5	Microwave dielectric heating of fluids in an integrated microfluidic device. <i>Journal of Micromechanics and Microengineering</i> , 2007, 17, 2224-2230.	2.6	75
6	Silicon detector nonlinearity and related effects. <i>Applied Optics</i> , 1983, 22, 1232.	2.1	66
7	Stable, high quantum efficiency, UV-enhanced silicon photodiodes by arsenic diffusion. <i>Solid-State Electronics</i> , 1987, 30, 89-92.	1.4	64
8	Capillarity Induced Solvent-Actuated Bonding of Polymeric Microfluidic Devices. <i>Analytical Chemistry</i> , 2006, 78, 3348-3353.	6.5	61
9	The near ultraviolet quantum yield of silicon. <i>Journal of Applied Physics</i> , 1983, 54, 1172-1174.	2.5	55
10	Surface modification of poly(methyl methacrylate) for improved adsorption of wall coating polymers for microchip electrophoresis. <i>Electrophoresis</i> , 2006, 27, 3788-3796.	2.4	55
11	Quantum efficiency of the p-n junction in silicon as an absolute radiometric standard. <i>Applied Optics</i> , 1979, 18, 760.	2.1	48
12	Complete collection of minority carriers from the inversion layer in induced junction diodes. <i>Journal of Applied Physics</i> , 1981, 52, 4879-4881.	2.5	48
13	Chopper-Stabilized Null Radiometer Based Upon an Electrically Calibrated Pyroelectric Detector. <i>Applied Optics</i> , 1973, 12, 2532.	2.1	47
14	High accuracy modeling of photodiode quantum efficiency. <i>Applied Optics</i> , 1989, 28, 3929.	2.1	41
15	Direct Measurement of Solar Luminosity Variation. <i>Science</i> , 1980, 207, 177-179.	12.6	38
16	The quantum yield of silicon in the visible. <i>Applied Physics Letters</i> , 1979, 35, 503-505.	3.3	33
17	Silicon photodiode front region collection efficiency models. <i>Journal of Applied Physics</i> , 1980, 51, 3993-3995.	2.5	32
18	Subnanometer localization accuracy in widefield optical microscopy. <i>Light: Science and Applications</i> , 2018, 7, 31.	16.6	32

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19	Quantitative Measurements of the Size Scaling of Linear and Circular DNA in Nanofluidic Slitlike Confinement. <i>Macromolecules</i> , 2012, 45, 1602-1611.	4.8	31
20	Analytic representation of the silicon absorption coefficient in the indirect transition region. <i>Applied Optics</i> , 1988, 27, 3777.	2.1	29
21	Microwave-induced adjustable nonlinear temperature gradients in microfluidic devices. <i>Journal of Micromechanics and Microengineering</i> , 2010, 20, 105025.	2.6	29
22	Infrared Reflectometry with a Cavity-Shaped Pyroelectric Detector. <i>Applied Optics</i> , 1974, 13, 2212.	2.1	26
23	Implementation of a System of Optical Calibration Based on Pyroelectric Radiometry. <i>Optical Engineering</i> , 1976, 15, .	1.0	26
24	Physics of photon-flux measurements with silicon photodiodes. <i>Journal of the Optical Society of America</i> , 1982, 72, 1068.	1.2	26
25	Prospects for improving the accuracy of silicon photodiode self-calibration with custom cryogenic photodiodes. <i>Metrologia</i> , 2003, 40, S132-S135.	1.2	26
26	DNA molecules descending a nanofluidic staircase by entropophoresis. <i>Lab on A Chip</i> , 2012, 12, 1174.	6.0	24
27	Induced junction (inversion layer) photodiode self-calibration. <i>Applied Optics</i> , 1984, 23, 1940.	2.1	23
28	Separation and metrology of nanoparticles by nanofluidic size exclusion. <i>Lab on A Chip</i> , 2010, 10, 2618.	6.0	23
29	Electrically based spectral power measurements through use of a tunable cw laser. <i>Applied Physics Letters</i> , 1975, 26, 309-311.	3.3	22
30	Transition rate for impact ionization in the approximation of a parabolic band structure. <i>Physical Review B</i> , 1983, 27, 4833-4840.	3.2	21
31	New calculations of the quantum yield of silicon in the near ultraviolet. <i>Physical Review B</i> , 1983, 27, 4841-4847.	3.2	19
32	Calibration of a Two-Color Imaging Pyrometer and Its Use for Particle Measurements in Controlled Air Plasma Spray Experiments. <i>Journal of Thermal Spray Technology</i> , 2002, 11, 195-205.	3.1	19
33	An accurate value for the absorption coefficient of silicon at 633 nm. <i>Journal of Research of the National Institute of Standards and Technology</i> , 1990, 95, 549.	1.2	18
34	Comparison of the Laser Power and Total Irradiance Scales Maintained by the National Bureau of Standards. <i>Applied Optics</i> , 1973, 12, 2773.	2.1	16
35	Dimensional reduction of duplex DNA under confinement to nanofluidic slits. <i>Soft Matter</i> , 2015, 11, 8273-8284.	2.7	16
36	Microwave power absorption in low-reflectance, complex, lossy transmission lines. <i>Journal of Research of the National Institute of Standards and Technology</i> , 2007, 112, 177.	1.2	15

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37	Gravity-Based Characterization of Three-Axis Accelerometers in Terms of Intrinsic Accelerometer Parameters. Journal of Research of the National Institute of Standards and Technology, 2017, 122, 1-14.	1.2	14
38	Reduction of calibration uncertainty due to mounting of three-axis accelerometers using the intrinsic properties model. Metrologia, 2021, 58, 035006.	1.2	14
39	Surface-field-induced feature in the quantum yield of silicon near 3.5 eV. Physical Review B, 1990, 42, 1262-1267.	3.2	13
40	Accurate Optical Analysis of Single-Molecule Entrapment in Nanoscale Vesicles. Analytical Chemistry, 2010, 82, 180-188.	6.5	13
41	Solar cell spectral response characterization. Applied Optics, 1979, 18, 3942.	2.1	12
42	Silicon (si) Revisited (1.1-3.1 eV)., 1997, , 519-529.		12
43	Polyelectrolyte multilayer-treated electrodes for real-time electronic sensing of cell proliferation. Journal of Research of the National Institute of Standards and Technology, 2010, 115, 61.	1.2	12
44	Numerical modeling of silicon photodiodes for high-accuracy applications, Part I. simulation programs. Journal of Research of the National Institute of Standards and Technology, 1991, 96, 463.	1.2	12
45	MEMS Kinematics by Super-Resolution Fluorescence Microscopy. Journal of Microelectromechanical Systems, 2013, 22, 115-123.	2.5	11
46	Centroid precision and orientation precision of planar localization microscopy. Journal of Microscopy, 2016, 263, 238-249.	1.8	11
47	Numerical modeling of silicon photodiodes for high-accuracy applications, Part III: Interpolating and extrapolating internal quantum-efficiency calibrations. Journal of Research of the National Institute of Standards and Technology, 1991, 96, 481.	1.2	11
48	Measurement of the silver freezing point with an optical fiber thermometer: Proof of concept. Journal of Applied Physics, 1986, 59, 1005-1012.	2.5	10
49	Infrared absorption cross section of arsenic in silicon in the impurity band region of concentration. Applied Optics, 1989, 28, 1193.	2.1	10
50	Theoretical Analysis of Laboratory Blackbodies 1: A Generalized Integral Equation. Applied Optics, 1973, 12, 1325.	2.1	9
51	Comparison of models of the built-in electric field in silicon at high donor densities. Journal of Applied Physics, 1984, 55, 3624-3627.	2.5	9
52	Numerical Modelling of Short-wavelength Internal Quantum Efficiency. Metrologia, 1991, 28, 193-196.	1.2	9
53	Accurate localization microscopy by intrinsic aberration calibration. Nature Communications, 2021, 12, 3925.	12.8	8
54	Low-level periodic pulsed energy measurements with an electrically calibrated pyroelectric detector. Applied Physics Letters, 1976, 28, 171-173.	3.3	7

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55	Effect of bandâ€gap narrowing on the builtâ€in electric field in nâ€type silicon. Journal of Applied Physics, 1981, 52, 1121-1123.	2.5	7
56	Photodiode operating mode nomenclature. Applied Optics, 1986, 25, 2033.	2.1	7
57	Quantum yield of silicon near the LII,III-shell absorption edge. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1996, 378, 343-348.	1.6	7
58	Particle Tracking of Microelectromechanical System Performance and Reliability. Journal of Microelectromechanical Systems, 2018, 27, 948-950.	2.5	7
59	Optical calibration of a submicrometer magnification standard. Journal of Research of the National Institute of Standards and Technology, 1992, 97, 267.	1.2	7
60	Chinese Restaurant Nomenclature for Radiometry. Applied Optics, 1973, 12, 435.	2.1	6
61	Characterization of electrothermal actuation with nanometer and microradian precision. , 2015, , .		6
62	Transfer of motion through a microelectromechanical linkage at nanometer and microradian scales. Microsystems and Nanoengineering, 2016, 2, 16055.	7.0	6
63	Waveformâ€independent Lockâ€in Detection. Review of Scientific Instruments, 1972, 43, 1704-1705.	1.3	5
64	Effect of Wall Roughness on the Spectral Density of Radiation within Symmetric Closed Cavities in Good Conductors. Journal of the Optical Society of America, 1972, 62, 602.	1.2	5
65	Robust auto-alignment technique for orientation-dependent etching of nanostructures. Journal of Micro/ Nanolithography, MEMS, and MOEMS, 2012, 11, 023005-1.	0.9	5
66	High Purity Powdered Csl as a High Reflectance Infrared Diffuser. Applied Optics, 1967, 6, 1280.	2.1	4
67	Trends in the Development of Radiometry. Optical Engineering, 1976, 15, 537.	1.0	4
68	Shape of the silicon absorption coefficient spectrum near 163 eV. Applied Optics, 1990, 29, 3548.	2.1	4
69	Analog BIST Functionality for Microhotplate Temperature Sensors. IEEE Electron Device Letters, 2009, 30, 928-930.	3.9	4
70	A Dynamic Uncertainty Protocol for Digital Sensor Networks. , 2021, , .		4
71	Numerical modeling of silicon photodiodes for high-accuracy applications, Part II. Interpreting oxide-bias experiments. Journal of Research of the National Institute of Standards and Technology, 1991, 96, 471.	1.2	4
72	Circumsolar Radiation and the International Pyrheliometric Scale. Applied Optics, 1972, 11, 1437.	2.1	3

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73	Current Status Of, And Future Directions In, Silicon Photodiode Self-Calibration. Proceedings of SPIE, 1989, 1109, 246.	0.8	3
74	Reflectometer for measurements of scattering from photodiodes and other low scattering surfaces. Applied Optics, 1990, 29, 3130.	2.1	3
75	MEMS microhotplate temperature sensor BIST: Importance and applications. , 2010, , .		3
76	A localized transition in the size variation of circular DNA in nanofluidic slitlike confinement. AIP Advances, 2013, 3, .	1.3	3
77	Microwave Dielectric Heating of Fluids in Microfluidic Devices. , 0, , .		3
78	Type B Uncertainty Analysis of Gravity-Based Determinations of Triaxial-Accelerometer Properties by Simulation of Measurement Errors. Journal of Research of the National Institute of Standards and Technology, 2021, 126, .	1.2	3
79	New NBS Scale of Irradiance. Applied Optics, 1973, 12, 907.	2.1	2
80	<title>Machine-assisted human classification of segmented characters for OCR testing and training</title>. , 1993, , .		2
81	Temperature-Programmed Gas-Sensing With Microhotplates: an Opportunity to Enhance Microelectronic Gas Sensor Metrology. , 2009, , .		2
82	Traceable calibration of a critical dimension atomic force microscope. Proceedings of SPIE, 2011, , .	0.8	2
83	Particle Tracking of a Complex Microsystem in Three Dimensions and Six Degrees of Freedom. , 2020, , .		2
84	Low cost digital vibration meter. Journal of Research of the National Institute of Standards and Technology, 2007, 112, 115.	1.2	2
85	<title>On The Possibility Of An Absolute Radiometric Standard Based On The Quantum Efficiency Of A Silicon Photodiode</title>. , 1979, , .		1
86	Generalized photodiode self-calibration formula. Applied Optics, 1991, 30, 884.	2.1	1
87	Simple, low-contrast thermal-resolution test target. Applied Optics, 1992, 31, 2978.	2.1	1
88	<title>Real-time infrared test set: system design and development</title>. , 1997, 3084, 78.		1
89	<title>Real-time infrared test set: assessment and characterization</title>. , 1997, , .		1
90	Rectangular scale-similar etch pits in monocrystalline diamond. Diamond and Related Materials, 2011, 20, 1363-1365.	3.9	1

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91	Simple Thermal-Efficiency Model for CMOS-Microhotplate Design. Journal of Research of the National Institute of Standards and Technology, 2006, 111, 243.	1.2	1
92	<title>Characterization Of The Electrically Calibrated Pyroelectric Radiometer</title>. Proceedings of SPIE, 1976, 0062, 166.	0.8	0
93	<title>Panel Discussion "Radiometric Standards For Industry"</title>. Proceedings of SPIE, 1983, , .	0.8	0
94	Recent improvements in radiometric accuracy based on new detector technology. Remote Sensing of Environment, 1987, 22, 127-129.	11.0	0
95	The Absorption Cross Section Of As In Si. , 1989, , .		0
96	Testing the accuracy of calculated equilibrium carrier concentrations in the presence of surface fields. Journal of Applied Physics, 1991, 70, 236-242.	2.5	0
97	Separation by ion implantation of oxygen (SIMOX) structures: estimating thicknesses. Applied Optics, 1992, 31, 485.	2.1	0
98	The MEMS 5-in-1 Reference Materials (RM 8096 and 8097). , 2012, , .		0
99	Progress on CD-AFM tip width calibration standards. Proceedings of SPIE, 2012, , .	0.8	0
100	Shock Measurements Based on Pendulum Excitation and Laser Doppler Velocimetry: Primary Calibration by SI-Traceable Distance Measurements. Journal of Research of the National Institute of Standards and Technology, 2020, 125, .	1.2	0
101	MEMS Young's modulus and step height measurements with round robin results. Journal of Research of the National Institute of Standards and Technology, 2010, 115, 303.	1.2	0
102	Silicon Photodiode Self-Calibration. , 0, , 821-838.		0
103	A new type of boundary value coupling for second order Sturm-Liouville systems. Journal of Research of the National Bureau of Standards Section B Mathematical Sciences, 1971, 75B, 121.	0.1	0