

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	Reduction of calibration uncertainty due to mounting of three-axis accelerometers using the intrinsic properties model. Metrologia, 2021, 58, 035006.	1.2	14
2	Accurate localization microscopy by intrinsic aberration calibration. Nature Communications, 2021, 12, 3925.	12.8	8
3	A Dynamic Uncertainty Protocol for Digital Sensor Networks. , 2021, , .		4
4	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
5	Particle Tracking of a Complex Microsystem in Three Dimensions and Six Degrees of Freedom. , 2020, , .		2
6	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
7	Particle Tracking of Microelectromechanical System Performance and Reliability. Journal of Microelectromechanical Systems, 2018, 27, 948-950.	2.5	7
8	Subnanometer localization accuracy in widefield optical microscopy. Light: Science and Applications, 2018, 7, 31.	16.6	32
9	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
10	Centroid precision and orientation precision of planar localization microscopy. Journal of Microscopy, 2016, 263, 238-249.	1.8	11
11	Transfer of motion through a microelectromechanical linkage at nanometer and microradian scales. Microsystems and Nanoengineering, 2016, 2, 16055.	7.0	6
12	Characterization of electrothermal actuation with nanometer and microradian precision. , 2015, , .		6
13	Dimensional reduction of duplex DNA under confinement to nanofluidic slits. Soft Matter, 2015, 11, 8273-8284.	2.7	16
14	MEMS Kinematics by Super-Resolution Fluorescence Microscopy. Journal of Microelectromechanical Systems, 2013, 22, 115-123.	2.5	11
15	A localized transition in the size variation of circular DNA in nanofluidic slitlike confinement. AIP Advances, 2013, 3, .	1.3	3
16	Robust auto-alignment technique for orientation-dependent etching of nanostructures. Journal of Micro/ Nanolithography, MEMS, and MOEMS, 2012, 11, 023005-1.	0.9	5
17	The MEMS 5-in-1 Reference Materials (RM 8096 and 8097). , 2012, , .		0
18	Quantitative Measurements of the Size Scaling of Linear and Circular DNA in Nanofluidic Slitlike Confinement. Macromolecules, 2012, 45, 1602-1611.	4.8	31

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19	Progress on CD-AFM tip width calibration standards. Proceedings of SPIE, 2012, , .	0.8	0
20	DNA molecules descending a nanofluidic staircase by entropophoresis. Lab on A Chip, 2012, 12, 1174.	6.0	24
21	Rectangular scale-similar etch pits in monocrystalline diamond. Diamond and Related Materials, 2011, 20, 1363-1365.	3.9	1
22	Traceable calibration of a critical dimension atomic force microscope. Proceedings of SPIE, 2011, , .	0.8	2
23	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
24	MEMS microhotplate temperature sensor BIST: Importance and applications. , 2010, , .		3
25	Accurate Optical Analysis of Single-Molecule Entrapment in Nanoscale Vesicles. Analytical Chemistry, 2010, 82, 180-188.	6.5	13
26	Microwave-induced adjustable nonlinear temperature gradients in microfluidic devices. Journal of Micromechanics and Microengineering, 2010, 20, 105025.	2.6	29
27	Separation and metrology of nanoparticles by nanofluidic size exclusion. Lab on A Chip, 2010, 10, 2618.	6.0	23
28	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
29	Analog BIST Functionality for Microhotplate Temperature Sensors. IEEE Electron Device Letters, 2009, 30, 928-930.	3.9	4
30	Temperature-Programmed Gas-Sensing With Microhotplates: an Opportunity to Enhance Microelectronic Gas Sensor Metrology. , 2009, , .		2
31	Generalized Temperature Measurement Equations for Rhodamine B Dye Solution and Its Application to Microfluidics. Analytical Chemistry, 2009, 81, 8260-8263.	6.5	77
32	Microwave dielectric heating of fluids in an integrated microfluidic device. Journal of Micromechanics and Microengineering, 2007, 17, 2224-2230.	2.6	75
33	Microwave power absorption in low-reflectance, complex, lossy transmission lines. Journal of Research of the National Institute of Standards and Technology, 2007, 112, 177.	1.2	15
34	Low cost digital vibration meter. Journal of Research of the National Institute of Standards and Technology, 2007, 112, 115.	1.2	2
35	Capillarity Induced Solvent-Actuated Bonding of Polymeric Microfluidic Devices. Analytical Chemistry, 2006, 78, 3348-3353.	6.5	61
36	Surface modification of poly(methyl methacrylate) for improved adsorption of wall coating polymers for microchip electrophoresis. Electrophoresis, 2006, 27, 3788-3796.	2.4	55

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37	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
38	Prospects for improving the accuracy of silicon photodiode self-calibration with custom cryogenic photodiodes. Metrologia, 2003, 40, S132-S135.	1.2	26
39	Calibration of a Two-Color Imaging Pyrometer and Its Use for Particle Measurements in Controlled Air Plasma Spray Experiments. Journal of Thermal Spray Technology, 2002, 11, 195-205.	3.1	19
40	<title>Real-time infrared test set: system design and development</title>. , 1997, 3084, 78.		1
41	<title>Real-time infrared test set: assessment and characterization</title>. , 1997, , .		1
42	Silicon (si) Revisited (1.1â€“3.1 ev). , 1997, , 519-529.		12
43	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
44	<title>Machine-assisted human classification of segmented characters for OCR testing and training</title>. , 1993, , .		2
45	Separation by ion implantation of oxygen (SIMOX) structures: estimating thicknesses. Applied Optics, 1992, 31, 485.	2.1	0
46	Simple, low-contrast thermal-resolution test target. Applied Optics, 1992, 31, 2978.	2.1	1
47	Optical calibration of a submicrometer magnification standard. Journal of Research of the National Institute of Standards and Technology, 1992, 97, 267.	1.2	7
48	Micromachined thermal radiation emitter from a commercial CMOS process. IEEE Electron Device Letters, 1991, 12, 57-59.	3.9	87
49	Generalized photodiode self-calibration formula. Applied Optics, 1991, 30, 884.	2.1	1
50	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
51	Numerical Modelling of Short-wavelength Internal Quantum Efficiency. Metrologia, 1991, 28, 193-196.	1.2	9
52	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
53	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
54	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

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55	Reflectometer for measurements of scattering from photodiodes and other low scattering surfaces. Applied Optics, 1990, 29, 3130.	2.1	3
56	Shape of the silicon absorption coefficient spectrum near 163 eV. Applied Optics, 1990, 29, 3548.	2.1	4
57	Surface-field-induced feature in the quantum yield of silicon near 3.5 eV. Physical Review B, 1990, 42, 1262-1267.	3.2	13
58	An accurate value for the absorption coefficient of silicon at 633 nm. Journal of Research of the National Institute of Standards and Technology, 1990, 95, 549.	1.2	18
59	Current Status Of, And Future Directions In, Silicon Photodiode Self-Calibration. Proceedings of SPIE, 1989, 1109, 246.	0.8	3
60	Infrared absorption cross section of arsenic in silicon in the impurity band region of concentration. Applied Optics, 1989, 28, 1193.	2.1	10
61	High accuracy modeling of photodiode quantum efficiency. Applied Optics, 1989, 28, 3929.	2.1	41
62	The Absorption Cross Section Of As In Si. , 1989, , .		0
63	Analytic representation of the silicon absorption coefficient in the indirect transition region. Applied Optics, 1988, 27, 3777.	2.1	29
64	Quantum efficiency stability of silicon photodiodes. Applied Optics, 1987, 26, 5284.	2.1	138
65	Stable, high quantum efficiency, UV-enhanced silicon photodiodes by arsenic diffusion. Solid-State Electronics, 1987, 30, 89-92.	1.4	64
66	Recent improvements in radiometric accuracy based on new detector technology. Remote Sensing of Environment, 1987, 22, 127-129.	11.0	0
67	Photodiode operating mode nomenclature. Applied Optics, 1986, 25, 2033.	2.1	7
68	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
69	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
70	Induced junction (inversion layer) photodiode self-calibration. Applied Optics, 1984, 23, 1940.	2.1	23
71	Silicon detector nonlinearity and related effects. Applied Optics, 1983, 22, 1232.	2.1	66
72	Transition rate for impact ionization in the approximation of a parabolic band structure. Physical Review B, 1983, 27, 4833-4840.	3.2	21

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73	New calculations of the quantum yield of silicon in the near ultraviolet. Physical Review B, 1983, 27, 4841-4847.	3.2	19
74	The near ultraviolet quantum yield of silicon. Journal of Applied Physics, 1983, 54, 1172-1174.	2.5	55
75	<title>Panel Discussion "Radiometric Standards For Industry"</title>. Proceedings of SPIE, 1983, , .	0.8	0
76	Physics of photon-flux measurements with silicon photodiodes. Journal of the Optical Society of America, 1982, 72, 1068.	1.2	26
77	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
78	Complete collection of minority carriers from the inversion layer in induced junction diodes. Journal of Applied Physics, 1981, 52, 4879-4881.	2.5	48
79	Direct Measurement of Solar Luminosity Variation. Science, 1980, 207, 177-179.	12.6	38
80	Silicon photodiode front region collection efficiency models. Journal of Applied Physics, 1980, 51, 3993-3995.	2.5	32
81	Quantum efficiency of the p-n junction in silicon as an absolute radiometric standard. Applied Optics, 1979, 18, 760.	2.1	48
82	Solar cell spectral response characterization. Applied Optics, 1979, 18, 3942.	2.1	12
83	The quantum yield of silicon in the visible. Applied Physics Letters, 1979, 35, 503-505.	3.3	33
84	<title>On The Possibility Of An Absolute Radiometric Standard Based On The Quantum Efficiency Of A Silicon Photodiode</title>. , 1979, , .		1
85	<title>Characterization Of The Electrically Calibrated Pyroelectric Radiometer</title>. Proceedings of SPIE, 1976, 0062, 166.	0.8	0
86	Lowâ€level periodic pulsed energy measurements with an electrically calibrated pyroelectric detector. Applied Physics Letters, 1976, 28, 171-173.	3.3	7
87	Trends in the Development of Radiometry. Optical Engineering, 1976, 15, 537.	1.0	4
88	Implementation of a System of Optical Calibration Based on Pyroelectric Radiometry. Optical Engineering, 1976, 15, .	1.0	26
89	Electrically based spectral power measurements through use of a tunable cw laser. Applied Physics Letters, 1975, 26, 309-311.	3.3	22
90	Influence of Black Coatings on Pyroelectric Detectors. Applied Optics, 1974, 13, 1171.	2.1	82

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91	Infrared Reflectometry with a Cavity-Shaped Pyroelectric Detector. Applied Optics, 1974, 13, 2212.	2.1	26
92	Chinese Restaurant Nomenclature for Radiometry. Applied Optics, 1973, 12, 435.	2.1	6
93	New NBS Scale of Irradiance. Applied Optics, 1973, 12, 907.	2.1	2
94	Theoretical Analysis of Laboratory Blackbodies 1: A Generalized Integral Equation. Applied Optics, 1973, 12, 1325.	2.1	9
95	Chopper-Stabilized Null Radiometer Based Upon an Electrically Calibrated Pyroelectric Detector. Applied Optics, 1973, 12, 2532.	2.1	47
96	Comparison of the Laser Power and Total Irradiance Scales Maintained by the National Bureau of Standards. Applied Optics, 1973, 12, 2773.	2.1	16
97	Waveform-Independent Lock-In Detection. Review of Scientific Instruments, 1972, 43, 1704-1705.	1.3	5
98	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
99	Circumsolar Radiation and the International Pyrheliometric Scale. Applied Optics, 1972, 11, 1437.	2.1	3
100	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
101	High Purity Powdered CsI as a High Reflectance Infrared Diffuser. Applied Optics, 1967, 6, 1280.	2.1	4
102	Microwave Dielectric Heating of Fluids in Microfluidic Devices. , 0, , .		3
103	Silicon Photodiode Self-Calibration. , 0, , 821-838.		0