Bincheng Li

List of Publications by Year
in descending order

85 papers	822 citations	623734 14 h-index	642732 23 g-index
85 all docs	85 docs citations	85 times ranked	389 citing authors

#	Article	IF	Citations
1	Measurement accuracy analysis of photocarrier radiometric determination of electronic transport parameters of silicon wafers. Journal of Applied Physics, 2005, 97, 023701.	2.5	48
2	Accuracy of photocarrier radiometric measurement of electronic transport properties of ion-implanted silicon wafers. Journal of Applied Physics, 2004, 96, 186-196.	2.5	39
3	Three-layer photocarrier radiometry model of ion-implanted silicon wafers. Journal of Applied Physics, 2004, 95, 7832-7840.	2.5	37
4	Pulsed top-hat beam thermal-lens measurement for ultraviolet dielectric coatings. Optics Letters, 1999, 24, 1398.	3.3	33
5	Thermal characterization of film-on-substrate systems with modulated thermoreflectance microscopy. Review of Scientific Instruments, 2000, 71, 2154-2160.	1.3	31
6	Electronic transport characterization of silicon wafers by laterally resolved free-carrier absorption and multiparameter fitting. Applied Physics Letters, 2006, 89, 112120.	3.3	30
7	Ion implant dose dependence of photocarrier radiometry at multiple excitation wavelengths. Applied Physics Letters, 2004, 84, 5219-5221.	3.3	28
8	Combined laser calorimetry and photothermal technique for absorption measurement of optical coatings. Applied Optics, 2006, 45, 5827.	2.1	28
9	Theoretical design of shadowing masks for uniform coatings on spherical substrates in planetary rotation systems. Optics Express, 2012, 20, 23790.	3.4	26
10	Probe-beam diffraction in a pulsed top-hat beam thermal lens with a mode-mismatched configuration. Applied Optics, 1999, 38, 5241.	2.1	25
11	Accuracy analysis for the determination of electronic transport properties of Si wafers using modulated free carrier absorption. Journal of Applied Physics, 2008, 104, 103705.	2.5	19
12	Deep subsurface electronic defect image contrast and resolution amplification in Si wafers using infrared photocarrier radiometry. Applied Physics Letters, 2004, 85, 1713-1715.	3.3	18
13	Accurate measurement of blood vessel depth in port wine stained human skin in vivo using pulsed photothermal radiometry. Journal of Biomedical Optics, 2004, 9, 961.	2.6	17
14	Origins of a damage-induced green photoluminescence band in fused silica revealed by time-resolved photoluminescence spectroscopy. Optical Materials Express, 2017, 7, 2888.	3.0	16
15	Simultaneous mapping of reflectance, transmittance and optical loss of highly reflective and anti-reflective coatings with two-channel cavity ring-down technique. Optics Express, 2017, 25, 5807.	3.4	15
16	The Optical Absorption and Photoluminescence Characteristics of Evaporated and IAD HfO2 Thin Films. Coatings, 2019, 9, 307.	2.6	15
17	Two-beam cross-modulation photocarrier radiometry: principles and contrast amplification in semiconductor subsurface imaging. Semiconductor Science and Technology, 2006, 21, 320-334.	2.0	14
18	Electronic transport characterization of silicon wafers by combination of modulated free carrier absorption and photocarrier radiometry. Journal of Applied Physics, 2011, 109, .	2.5	14

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19	Pressure optimization of an EC-QCL based cavity ring-down spectroscopy instrument for exhaled NO detection. Applied Physics B: Lasers and Optics, 2018, 124, 1.	2.2	14
20	Evaluation of aging process of silicone rubber composite insulators with photothermal radiometry. Journal Physics D: Applied Physics, 2018, 51, 425304.	2.8	14
21	High-precision measurements of nitrous oxide and methane in air with cavity ring-down spectroscopy at 7.6â€‰Âµm. Atmospheric Measurement Techniques, 2019, 12, 2851-2861.	3.1	13
22	Sensitivity analysis of laterally resolved free carrier absorption determination of electronic transport properties of silicon wafers. Journal of Applied Physics, 2008, 103, 033709.	2.5	12
23	Accurate determination of electronic transport properties of silicon wafers by nonlinear photocarrier radiometry with multiple pump beam sizes. Journal of Applied Physics, 2015, 118, .	2.5	12
24	Self-eliminating instrumental frequency response from free carrier absorption signals for silicon wafer characterization. Review of Scientific Instruments, 2011, 82, 043104.	1.3	11
25	A Dual-band and dual-polarized antenna array for 2G/3G/LTE base stations. International Journal of RF and Microwave Computer-Aided Engineering, 2016, 26, 154-163.	1.2	11
26	Simultaneous detection of ethanol, ether and acetone by mid-infrared cavity ring-down spectroscopy at 3.8ÂÎ¼m. Applied Physics B: Lasers and Optics, 2016, 122, 1.	2.2	11
27	Correlation between 193nm absorption and photoluminescence-related defects for fused silica materials. Optical Materials Express, 2018, 8, 775.	3.0	11
28	Experimental Demonstration of Central-Lobe Energy Enhancement Based on Amplitude Modulation of Beamlets in 19 Elements Fiber Laser Phased Array. IEEE Photonics Journal, 2021, 13, 1-13.	2.0	11
29	High-resolution beam scanning technique with microlens array and adaptive fiber-optics collimator. Optics Express, 2021, 29, 359.	3.4	11
30	High-reflectivity measurement with a broadband diode laser based cavity ring-down technique. Applied Physics B: Lasers and Optics, 2007, 88, 477-482.	2.2	10
31	Microstructure-related properties of magnesium fluoride films at 193nm by oblique-angle deposition. Optics Express, 2013, 21, 960.	3.4	10
32	Aging characterization of 500-kV field-serviced silicone rubber composite insulators with self-normalized photothermal radiometry. Infrared Physics and Technology, 2021, 116, 103763.	2.9	10
33	Photothermal investigation of the thermal shock behavior of alumina ceramics for engine components. Journal of Applied Physics, 2004, 95, 1042-1049.	2.5	9
34	Photocarrier radiometric and ellipsometric characterization of ion-implanted silicon wafers. Journal of Applied Physics, 2008, 103, .	2.5	9
35	Analysis of surface thermal lens signal in optical coatings with top-hat beam excitation. Journal of Applied Physics, 2008, 103, 033518.	2.5	9
36	Iterative Pointing Angle Calibration Method for the Spaceborne Photon-Counting Laser Altimeter Based on Small-Range Terrain Matching. Remote Sensing, 2019, 11, 2158.	4.0	9

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37	Photothermal Radiometry Depth-Profiling of Aged Silicone Rubber Composite Insulators. IEEE Transactions on Power Delivery, 2021, 36, 3223-3230.	4.3	9
38	Influence of vignetting on signal analysis of photocarrier radiometry of semiconductor wafers. Review of Scientific Instruments, 2005, 76, 063703.	1.3	8
39	Photocarrier radiometry of ion-implanted and thermally annealed silicon wafers with multiple-wavelength excitations. Journal of Applied Physics, 2012, 111, .	2.5	7
40	Sensitivity enhancement of surface thermal lens technique with a short-wavelength probe beam: Experiment. Review of Scientific Instruments, 2015, 86, 024902.	1.3	7
41	Nonlinear two-layer model for photocarrier radiometry of ion-implanted silicon wafers. AIP Advances, 2019, 9, 035125.	1.3	7
42	Precise measurements of super-high reflectance with cavity ring-down technique. Metrologia, 2020, 57, 055002.	1.2	7
43	Performance optimization of 193 nm antireflective coatings with wide incident angle ranges on strongly curved spherical substrates. Optics Express, 2018, 26, 19524.	3.4	7
44	Photocarrier Radiometry Investigation of Light-Induced Degradation of Boron-Doped Czochralski-Grown Silicon Without Surface Passivation. International Journal of Thermophysics, 2016, 37, 1.	2.1	6
45	Extinction measurement with open-path cavity ring-down technique of variable cavity length. Optics Express, 2016, 24, 13343.	3.4	6
46	Impact of heat treatment on NBOHC luminescence of OH-containing and H2-impregnated fused silica for deep-ultraviolet applications. Journal of Luminescence, 2019, 209, 31-38.	3.1	6
47	Electronic transport characterization of B+ ion-implanted silicon wafers with nonlinear photocarrier radiometry. Journal of Applied Physics, 2020, 127, 035701.	2.5	6
48	A phase-error prediction method for coherent beam combining via convolutional neural network. Optik, 2021, 246, 167827.	2.9	6
49	Accurate electronic transport characterization of B+ ion-implanted silicon wafers with self-normalized nonlinear photocarrier radiometry. Infrared Physics and Technology, 2020, 111, 103533.	2.9	6
50	Photocarrier Radiometry Characterization of Ultra-shallow Junctions (USJ) in Silicon with Excimer Laser Irradiation. International Journal of Thermophysics, 2015, 36, 1173-1180.	2.1	5
51	Characterization of single LaF3 and MgF2 films on spherical substrate by planetary deposition. Thin Solid Films, 2016, 612, 296-302.	1.8	5
52	Configuration optimization of photothermal deflection for measurement sensitivity enhancement. Review of Scientific Instruments, 2018, 89, 024901.	1.3	5
53	Impact of Residual Water Vapor on the Simultaneous Measurements of Trace CH4 and N2O in Air with Cavity Ring-Down Spectroscopy. Atmosphere, 2021, 12, 221.	2.3	5
54	Theory analysis and experimental demonstration of a microlens array scanner with Kepler structure. Applied Optics, 2020, 59, 10754.	1.8	5

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55	Performance evaluation of pulsed photothermal profiling of port wine stain in human skin. Review of Scientific Instruments, 2004, 75, 2048-2055.	1.3	4
56	Accurate determination of subnanoscale deformation with combined laser calorimetry and surface thermal lens technique. Applied Physics Letters, 2009, 94, .	3.3	4
57	Multiscale Fusion Signal Extraction for Spaceborne Photon-Counting Laser Altimeter in Complex and Low Signal-to-Noise Ratio Scenarios. IEEE Geoscience and Remote Sensing Letters, 2022, 19, 1-5.	3.1	4
58	Continuous Tracking and Pointing of Coherent Beam Combining System via Target-in-the-Loop Concept. IEEE Photonics Technology Letters, 2021, 33, 1119-1122.	2.5	4
59	Performance comparison of quasi-optical phased arrays using micro lens array with different structures. Infrared Physics and Technology, 2021, 118, 103861.	2.9	4
60	A Novel Fabricating Method of Micro Lens-on-Lens Arrays with Two Focal Lengths. Micromachines, 2021, 12, 1372.	2.9	4
61	IR variable angle spectroscopic ellipsometry study of high dose ion-implanted and annealed silicon wafers. Journal of Applied Physics, 2009, 105, 013533.	2.5	3
62	Characterization of Arsenic Ultra-Shallow Junctions in Silicon Using Photocarrier Radiometry and Spectroscopic Ellipsometry. International Journal of Thermophysics, 2012, 33, 2082-2088.	2.1	3
63	Optical and photo-carrier characterization of ultra-shallow junctions in silicon. Science China: Physics, Mechanics and Astronomy, 2013, 56, 1294-1300.	5.1	3
64	Three-dimensional transient model for time-domain free-carrier absorption measurement of excess carriers in silicon wafers. Journal of Applied Physics, 2013, 114, 243702.	2.5	3
65	Accuracy Improvement of Multi-parameter Estimation in Combined Photocarrier Radiometry and Free Carrier Absorption for Characterization of Silicon Wafers. International Journal of Thermophysics, 2012, 33, 2076-2081.	2.1	2
66	Characterization of Silicon Wafers with Combined Photocarrier Radiometry and Free Carrier Absorption. International Journal of Thermophysics, 2013, 34, 1735-1745.	2.1	2
67	Pulse stretcher with two beamsplitting elements for excimer laser pulses. Review of Scientific Instruments, 2017, 88, 123113.	1.3	2
68	Influence of Nonlinearity on Electronic Transport Characterization of Ion-Implanted Silicon Wafers with Photocarrier Radiometry. International Journal of Thermophysics, 2020, 41, 1.	2.1	2
69	Differential nonlinear photocarrier radiometry for characterizing ultra-low energy boron implantation in silicon. Chinese Physics B, 2022, 31, 038102.	1.4	2
70	Deep Learning Piston Aberration Control of Fiber Laser Phased Array By Spiral Phase Modulation. Journal of Lightwave Technology, 2022, 40, 3980-3991.	4.6	2
71	Non-destructive aging evaluation of 500-kV field-serviced silicone rubber composite insulators with photothermal radiometry. Journal of Applied Physics, 2022, 131, .	2.5	2
72	Continuous-wave cavity ring-down technique for accurate measurement of high reflectivity. Frontiers of Optoelectronics in China, 2008, 1, 168-172.	0.2	1

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73	Analysis of Enhanced Photocarrier Radiometry Signals for Ion-Implanted and Annealed Silicon Wafers. International Journal of Thermophysics, 2012, 33, 2089-2094.	2.1	1
74	Carrier Diffusivity Measurement in Silicon Wafers Using Free Carrier Absorption. International Journal of Thermophysics, 2013, 34, 1721-1726.	2.1	1
75	Study on the Spatial Resolution of Imaging Technique for Absorption Loss Measurement of Optical Coatings. International Journal of Thermophysics, 2013, 34, 1652-1660.	2.1	1
76	Combined Frequency- and Time-Domain Photocarrier Radiometry Characterization for Annealing Temperature Dependence of Arsenic Ion-Implanted Silicon Wafers. International Journal of Thermophysics, 2015, 36, 1045-1050.	2.1	1
77	Thermal Diffusivity of Fresh Silicone Rubber Composite Insulators Determined by Photothermal Radiometry. International Journal of Thermophysics, 2020, 41, 1.	2.1	1
78	Improved etching uniformity using equivalent electrodes on an unconventional, irregular membrane optical element for large aperture diffractive optical telescopes. Optics Express, 2020, 28, 33739.	3.4	1
79	Piston Error Extraction from Dual-Wavelength Interference Patterns Using Phase Retrieval Technique. Photonics, 2022, 9, 111.	2.0	1
80	Accurate characterization of surface recombination velocities of silicon wafers with differential nonlinear photocarrier radiometry. Journal of Applied Physics, 2022, 131, 125703.	2.5	1
81	Simultaneous Absorptance and Thermal-Diffusivity Determination of Optical Components with Laser Calorimetry Technique. International Journal of Thermophysics, 2012, 33, 2069-2075.	2.1	0
82	Simulation of Discharge Characteristics for the Plasma Etching of Large Area SiO2 Substrates. Journal of Russian Laser Research, 2020, 41, 258-267.	0.6	0
83	CCD-Based Thermal Lensing for Fast Localization of Microscale Absorptive Defects on Large-Sized Laser Components. International Journal of Thermophysics, 2020, 41, 1.	2.1	0
84	NiCrNx interlayer thickness dependence of spectral performance and environmental durability of protected-silver mirrors. Optical Engineering, 2018, 57, 1.	1.0	0
85	Characterization of Kepler structured microlens array scanners for 2D scanning. , 2021, , .		0