Andreas Mandelis

List of Publications by Year
in descending order

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402	7,613	70961	110170
papers	citations	41 h-index	64 g-index

661	661	661	2821
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Theory of photopyroelectric spectroscopy of solids. Journal of Applied Physics, 1985, 57, 4421-4430.	1.1	339
2	Diffusion-Wave Fields. , 2001, , .		235
3	Solidâ€state sensors for trace hydrogen gas detection. Journal of Applied Physics, 1990, 68, R1-R30.	1.1	214
4	Diffusion Waves and their Uses. Physics Today, 2000, 53, 29-34.	0.3	183
5	Thermalâ€wave resonator cavity. Review of Scientific Instruments, 1995, 66, 4999-5005.	0.6	169
6	Infrared photocarrier radiometry of semiconductors:â€,â€,Physical principles, quantitative depth profilometry, and scanning imaging of deep subsurface electronic defects. Physical Review B, 2003, 67, .	1.1	150
7	Thermal-wave radar: A novel subsurface imaging modality with extended depth-resolution dynamic range. Review of Scientific Instruments, 2009, 80, 034902.	0.6	111
8	Thermal-wave resonator cavity design and measurements of the thermal diffusivity of liquids. Review of Scientific Instruments, 2000, 71, 2933-2937.	0.6	106
9	Thermophotonic radar imaging: An emissivity-normalized modality with advantages over phase lock-in thermography. Applied Physics Letters, 2011, 98, .	1.5	99
10	Absolute optical absorption coefficient measurements using transverse photothermal deflection spectroscopy. Journal of Applied Physics, 1983, 54, 3404-3409.	1.1	91
11	Temperature dependence of carrier mobility in Si wafers measured by infrared photocarrier radiometry. Applied Physics Letters, 2003, 82, 4077-4079.	1.5	80
12	Structure and the Reflectionless/Refractionless Nature of Parabolic Diffusion-Wave Fields. Physical Review Letters, 2001, 87, .	2.9	77
13	Truncated-correlation photothermal coherence tomography for deep subsurface analysis. Nature Photonics, 2014, 8, 635-642.	15.6	76
14	Thermal Coherence Tomography Using Match Filter Binary Phase Coded Diffusion Waves. Physical Review Letters, 2011, 107, 165901.	2.9	72
15	Timeâ€domain photoacoustic spectroscopy of solids. Journal of Applied Physics, 1979, 50, 4330-4338.	1.1	69
16	Frequency-domain photothermoacoustics: Alternative imaging modality of biological tissues. Journal of Applied Physics, 2009, 105, .	1.1	68
17	Thermal diffusivity measurements in the photoacoustic open-cell configuration using simple signal normalization techniques. Journal of Applied Physics, 2001, 90, 2273-2279.	1.1	66
18	Laser infrared photothermal radiometry of semiconductors: principles and applications to solid state electronics. Solid-State Electronics, 1998, 42, 1-15.	0.8	61

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19	Frequency modulated (FM) time delay photoacoustic and photothermal wave spectroscopies. Technique, instrumentation, and detection. Part I: Theoretical. Review of Scientific Instruments, 1986, 57, 617-621.	0.6	60
20	Photoacoustic frequencyâ€domain depth profiling of continuously inhomogeneous condensed phases: Theory and simulations for the inverse problem. Journal of Applied Physics, 1991, 70, 1761-1770.	1.1	60
21	Signal-to-noise analysis of biomedical photoacoustic measurements in time and frequency domains. Review of Scientific Instruments, 2010, 81, 124901.	0.6	60
22	Fourier-domain biophotoacoustic subsurface depth selective amplitude and phase imaging of turbid phantoms and biological tissue. Journal of Biomedical Optics, 2006, 11, 044006.	1.4	57
23	Comparison between pulsed laser and frequency-domain photoacoustic modalities: Signal-to-noise ratio, contrast, resolution, and maximum depth detectivity. Review of Scientific Instruments, 2011, 82, 094903.	0.6	56
24	Controlled Steric Hindrance Enables Efficient Ligand Exchange for Stable, Infrared-Bandgap Quantum Dot Inks. ACS Energy Letters, 2019, 4, 1225-1230.	8.8	54
25	Generalized methodology for thermal diffusivity depth profile reconstruction in semiâ€infinite and finitely thick inhomogeneous solids. Journal of Applied Physics, 1996, 80, 5570-5578.	1.1	53
26	Highly sensitive broadband differential infrared photoacoustic spectroscopy with wavelet denoising algorithm for trace gas detection. Photoacoustics, 2021, 21, 100228.	4.4	53
27	Signalâ€toâ€noise ratio in lockâ€in amplifier synchronous detection: A generalized communications systems approach with applications to frequency, time, and hybrid (rate window) photothermal measurements. Review of Scientific Instruments, 1994, 65, 3309-3323.	0.6	52
28	Self-normalized photothermal technique for accurate thermal diffusivity measurements in thin metal layers. Review of Scientific Instruments, 2003, 74, 5219-5225.	0.6	51
29	Photothermal reflectance investigation of processed silicon. I. Roomâ€temperature study of the induced damage and of the annealing kinetics of defects in ionâ€implanted wafers. Journal of Applied Physics, 1990, 67, 2815-2821.	1.1	50
30	Thermal-wave resonant-cavity measurements of the thermal diffusivity of air: A comparison between cavity-length and modulation-frequency scans. International Journal of Thermophysics, 1996, 17, 1241-1254.	1.0	49
31	Signal generation mechanisms, intracavity-gas thermal-diffusivity temperature dependence, and absolute infrared emissivity measurements in a thermal-wave resonant cavity. Review of Scientific Instruments, 1998, 69, 197-203.	0.6	49
32	Development of a laser photothermoacoustic frequency-swept system for subsurface imaging: Theory and experiment. Journal of the Acoustical Society of America, 2004, 116, 3523-3533.	0.5	49
33	Frequency modulated (FM) time delay photoacoustic and photothermal wave spectroscopies. Technique, instrumentation, and detection. Part II: Mirage effect spectrometer design and performance. Review of Scientific Instruments, 1986, 57, 622-629.	0.6	48
34	Pyroelectric sensors for the photothermal analysis of condensed phases. Ferroelectrics, 1991, 118, 379-409.	0.3	48
35	Application of a generalized methodology for quantitative thermal diffusivity depth profile reconstruction in manufactured inhomogeneous steel-based materials. Journal of Applied Physics, 1998, 83, 3495-3498.	1.1	48
36	Measurement accuracy analysis of photocarrier radiometric determination of electronic transport parameters of silicon wafers. Journal of Applied Physics, 2005, 97, 023701.	1.1	48

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37	Polypyrrole nanoparticles as a thermal transducer of NIR radiation in hot-melt adhesives. Journal of Materials Chemistry, 2007, 17, 4309.	6.7	47
38	Diagnosis of Pit and Fissure Caries Using Frequency-Domain Infrared Photothermal Radiometry and Modulated Laser Luminescence. Caries Research, 2004, 38, 497-513.	0.9	46
39	Self-consistent photothermal techniques: Application for measuring thermal diffusivity in vegetable oils. Review of Scientific Instruments, 2003, 74, 700-702.	0.6	45
40	Nonintrusive, noncontacting frequency-domain photothermal radiometry and luminescence depth profilometry of carious and artificial subsurface lesions in human teeth. Journal of Biomedical Optics, 2004, 9, 804.	1.4	44
41	Infrared lock-in carrierography (photocarrier radiometric imaging) of Si solar cells. Journal of Applied Physics, 2010, 107, .	1.1	43
42	Linear frequency modulation photoacoustic radar: Optimal bandwidth and signal-to-noise ratio for frequency-domain imaging of turbid media. Journal of the Acoustical Society of America, 2011, 130, 1313-1324.	0.5	43
43	Computational Aspects of Laser Radiometric Multiparameter Fit for Carrier Transport Property Measurements in Si Wafers. Journal of the Electrochemical Society, 2000, 147, 687.	1.3	42
44	Normalized photoacoustic techniques for thermal diffusivity measurements of buried layers in multilayered systems. Journal of Applied Physics, 2002, 92, 3047-3055.	1.1	42
45	Frequency-domain photoacoustic phased array probe for biomedical imaging applications. Optics Letters, 2011, 36, 4560.	1.7	42
46	Noninvasive glucose detection in human skin using wavelength modulated differential laser photothermal radiometry. Biomedical Optics Express, 2012, 3, 3012.	1.5	42
47	Frequency modulated (FM) time delay photoacoustic and photothermal wave spectroscopies. Technique, instrumentation, and detection. Part III: Mirage effect spectrometer, dynamic range, and comparison to pseudoâ€randomâ€binaryâ€sequence (PRBS) method. Review of Scientific Instruments, 1986, 57, 630-635.	0.6	40
48	Coupled ac photocurrent and photothermal reflectance response theory of semiconductingpâ€njunctions. I. Journal of Applied Physics, 1989, 66, 5572-5583.	1.1	40
49	Photoacoustic frequencyâ€domain depth profilometry of surfaceâ€layer inhomogeneities: Application to laser processed steels. Journal of Applied Physics, 1992, 71, 6029-6035.	1.1	40
50	Time-Delay-Domain and Pseudorandom-Noise Photoacoustic and Photothermal Wave Processes: A Review of the State of the Art. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 1986, 33, 590-614.	1.7	39
51	Accuracy of photocarrier radiometric measurement of electronic transport properties of ion-implanted silicon wafers. Journal of Applied Physics, 2004, 96, 186-196.	1.1	39
52	Photothermal Radiometry with Solid Cylindrical Samples. Journal of Applied Physics, 2004, 96, 3756-3762.	1.1	39
53	Photopyroelectric thinâ€film instrumentation and impulseâ€response detection. Part I: A theoretical model. Review of Scientific Instruments, 1987, 58, 2018-2023.	0.6	38
54	Title is missing!. International Journal of Thermophysics, 1999, 20, 1587-1602.	1.0	38

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55	Detection of interproximal demineralized lesions on human teeth in vitro using frequency-domain infrared photothermal radiometry and modulated luminescence. Journal of Biomedical Optics, 2007, 12, 034028.	1.4	38
56	Relative sensitivity of photomodulated reflectance and photothermal infrared radiometry to thermal and carrier plasma waves in semiconductors. Journal of Applied Physics, 1997, 82, 1853-1859.	1.1	37
57	Theoretical and experimental aspects of three-dimensional infrared photothermal radiometry of semiconductors. Journal of Applied Physics, 1999, 85, 7392-7397.	1.1	37
58	Three-layer photocarrier radiometry model of ion-implanted silicon wafers. Journal of Applied Physics, 2004, 95, 7832-7840.	1.1	37
59	Thermophotonic lock-in imaging of early demineralized and carious lesions in human teeth. Journal of Biomedical Optics, 2011, 16, 071402.	1.4	37
60	Imbalanced charge carrier mobility and Schottky junction induced anomalous current-voltage characteristics of excitonic PbS colloidal quantum dot solar cells. Solar Energy Materials and Solar Cells, 2016, 155, 155-165.	3.0	37
61	Photothermal wave imaging of metalâ€oxideâ€semiconductor fieldâ€effect transistor structures. Journal of Applied Physics, 1988, 63, 92-98.	1.1	36
62	Noncontact measurement of transport properties of longâ€bulkâ€carrierâ€lifetime Si wafers using photothermal radiometry. Applied Physics Letters, 1996, 69, 2522-2524.	1.5	36
63	Thermal-wave nondestructive evaluation of cylindrical composite structures using frequency-domain photothermal radiometry. Journal of Applied Physics, 2005, 97, 014911.	1.1	36
64	In vitro detection and quantification of enamel and root caries using infrared photothermal radiometry and modulated luminescence. Journal of Biomedical Optics, 2008, 13, 034025.	1.4	36
65	Photothermoacoustic imaging of biological tissues: maximum depth characterization comparison of time and frequency-domain measurements. Journal of Biomedical Optics, 2009, 14, 044025.	1.4	35
66	Photoacoustic radar imaging signal-to-noise ratio, contrast, and resolution enhancement using nonlinear chirp modulation. Optics Letters, 2010, 35, 1623.	1.7	35
67	Photothermal reflectance investigation of processed silicon. II. Signal generation and lattice temperature dependence in ionâ€implanted and amorphous thin layers. Journal of Applied Physics, 1990, 67, 2822-2830.	1.1	34
68	Title is missing!. Journal of Physics A, 1991, 24, 2485-2505.	1.6	34
69	Hamiltonâ€“Jacobi formulation and quantum theory of thermal wave propagation in the solid state. Journal of Mathematical Physics, 1985, 26, 2676-2683.	0.5	33
70	High-Precision and High-Resolution Measurements of Thermal Diffusivity and Infrared Emissivity of Waterâ€“Methanol Mixtures Using a Pyroelectric Thermal Wave Resonator Cavity: Frequency-Scan Approach. International Journal of Thermophysics, 2005, 26, 837-854.	1.0	33
71	Coregistered photoacoustic and ultrasonic signatures of early bone density variations. Journal of Biomedical Optics, 2014, 19, 036015.	1.4	33
72	Enhanced truncated-correlation photothermal coherence tomography with application to deep subsurface defect imaging and 3-dimensional reconstructions. Journal of Applied Physics, 2017, 122, .	1.1	33

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73	Photopyroelectric thinâ€film instrumentation and impulseâ€response detection. Part II: Methodology. Review of Scientific Instruments, 1987, 58, 2024-2032.	0.6	31
74	Physical mechanisms of thermal-diffusivity depth-profile generation in a hardened low-alloy Mn, Si, Cr, Mo steel reconstructed by photothermal radiometry. Journal of Applied Physics, 2001, 89, 7879-7884.	1.1	31
75	Photopyroelectric thermal wave detection via contactless capacitive polyvinylidene fluoride (PVDF)â€metal probeâ€tip coupling. Review of Scientific Instruments, 1989, 60, 306-316.	0.6	30
76	Operating characteristics and comparison of photopyroelectric and piezoelectric sensors for trace hydrogen gas detection. I. Development of a new photopyroelectric sensor. Journal of Applied Physics, 1989, 66, 3975-3985.	1.1	29
77	Title is missing!. International Journal of Thermophysics, 2003, 24, 463-471.	1.0	29
78	Reconstruction of depth profiles of thermal conductivity of case hardened steels using a three-dimensional photothermal technique. Journal of Applied Physics, 2008, 104, .	1.1	29
79	Quantitative self-calibrating lock-in carrierographic lifetime imaging of silicon wafers. Applied Physics Letters, 2012, 101, .	1.5	29
80	Exciton Lifetime Broadening and Distribution Profiles of PbS Colloidal Quantum Dot Thin Films Using Frequency- and Temperature-Scanned Photocarrier Radiometry. Journal of Physical Chemistry C, 2013, 117, 23333-23348.	1.5	29
81	Simultaneous dual-wavelength photoacoustic radar imaging using waveform engineering with mismatched frequency modulated excitation. Optics Letters, 2015, 40, 1145.	1.7	29
82	Operating characteristics and comparison of photopyroelectric and piezoelectric sensors for trace hydrogen gas detection. II. Piezoelectric quartzâ€crystal microbalance sensor. Journal of Applied Physics, 1989, 66, 3986-3992.	1.1	28
83	Quantitative photoacoustic depth profilometry of magnetic fieldâ€induced thermal diffusivity inhomogeneity in the liquid crystal octylcyanobiphenyl. Journal of Applied Physics, 1991, 70, 1771-1777.	1.1	28
84	Ion implant dose dependence of photocarrier radiometry at multiple excitation wavelengths. Applied Physics Letters, 2004, 84, 5219-5221.	1.5	28
85	Slow and fast ultrasonic wave detection improvement in human trabecular bones using Golay code modulation. Journal of the Acoustical Society of America, 2012, 132, EL222-EL228.	0.5	28
86	Measurements of the thermodynamic equation of state via the pressure dependence of thermophysical properties of air by a thermal-wave resonant cavity. Review of Scientific Instruments, 1998, 69, 2918-2923.	0.6	27
87	Frequency-domain theory of laser infrared photothermal radiometric detection of thermal waves generated by diffuse-photon-density wave fields in turbid media. Physical Review E, 2002, 65, 021909.	0.8	26
88	Frequency domain photothermal radiometry with spherical solids. Journal of Applied Physics, 2007, 101, 083503.	1.1	26
89	Photoacoustic correlation signal-to-noise ratio enhancement by coherent averaging and optical waveform optimization. Review of Scientific Instruments, 2013, 84, 104907.	0.6	26
90	Quantitative Analysis of Trap-State-Mediated Exciton Transport in Perovskite-Shelled PbS Quantum Dot Thin Films Using Photocarrier Diffusion-Wave Nondestructive Evaluation and Imaging. Journal of Physical Chemistry C, 2016, 120, 14416-14427.	1.5	26

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91	Non-destructive depth profiling of laser-processed Zr-2.5 Nb alloy by IR photothermal radiometry. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1992, 159, 111-118.	2.6	25
92	Carrier-density-wave transport property depth profilometry using spectroscopic photothermal radiometry of silicon wafers I: Theoretical aspects. Journal of Applied Physics, 2003, 93, 5236-5243.	1.1	25
93	Theoretical analysis of coupled diffuse-photon-density and thermal-wave field depth profiles photothermally generated in layered turbid dental structures. Journal of Applied Physics, 2009, 105, .	1.1	25
94	Photothermal tomography for the functional and structural evaluation, and early mineral loss monitoring in bones. Biomedical Optics Express, 2014, 5, 2488.	1.5	25
95	Cameraâ€based high frequency heterodyne lockâ€in carrierographic (frequencyâ€domain) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 5 Materials Science, 2016, 213, 405-411.	0.8	24
96	Temperature- and ligand-dependent carrier transport dynamics in photovoltaic PbS colloidal quantum dot thin films using diffusion-wave methods. Solar Energy Materials and Solar Cells, 2017, 164, 135-145.	3.0	24
97	Correlation with Caries Lesion Depth of The Canary System, DIAGNOdent and ICDAS II. Open Dentistry Journal, 2017, 11, 679-689.	0.2	24
98	Laserâ€induced photothermal reflectance investigation of silicon damaged by arsenic ion implantation: A temperature study. Applied Physics Letters, 1989, 54, 2392-2394.	1.5	23
99	Purely thermal-wave photopyroelectric interferometry. Journal of Applied Physics, 1999, 85, 8366-8377.	1.1	23
100	Simple, accurate, and precise measurements of thermal diffusivity in liquids using a thermal-wave cavity. Review of Scientific Instruments, 2001, 72, 2649-2652.	0.6	23
101	Nonlinear Dependence of Photocarrier Radiometry Signals from p-Si Wafers on Optical Excitation Intensity. Journal of the Electrochemical Society, 2007, 154, H983.	1.3	23
102	Accurate reconstruction of the thermal conductivity depth profile in case hardened steel. Journal of Applied Physics, 2010, 107, .	1.1	23
103	Infrared realâ€timeâ€normalized photopyroelectric measurements of crystalline germanium: Instrumentation and spectroscopy. Review of Scientific Instruments, 1990, 61, 2360-2367.	0.6	22
104	Noncontacting photothermal radiometry of SiO2/Si MOS capacitor structures. Solid-State Electronics, 1997, 41, 591-597.	0.8	22
105	Title is missing!. International Journal of Thermophysics, 2002, 23, 605-614.	1.0	22
106	Highly depth-resolved chirped pulse photothermal radar for bone diagnostics. Review of Scientific Instruments, 2011, 82, 074906.	0.6	22
107	Statistical theory and applications of lock-in carrierographic image pixel brightness dependence on multi-crystalline Si solar cell efficiency and photovoltage. Journal of Applied Physics, 2012, 112, 054505.	1.1	22
108	Theory of second harmonic thermal-wave generation: One-dimensional geometry. International Journal of Thermophysics, 1993, 14, 321-337.	1.0	21

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109	Computational thermalâ€wave slice tomography with backpropagation and transmission reconstructions. Review of Scientific Instruments, 1993, 64, 3548-3562.	0.6	21
110	Image-enhanced thermal-wave slice diffraction tomography with numerically simulated reconstructions. Inverse Problems, 1997, 13, 1393-1412.	1.0	21
111	Measurement of thermal diffusivity of air using photopyroelectric interferometry. Review of Scientific Instruments, 1999, 70, 2372-2378.	0.6	21
112	Silicon solar cell electrical parameter measurements through quantitative lockâ€in carrierographic (photoluminescence) and thermographic imaging. Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 2135-2145.	0.8	21
113	The application of backscattered ultrasound and photoacoustic signals for assessment of bone collagen and mineral contents. Quantitative Imaging in Medicine and Surgery, 2015, 5, 46-56.	1.1	21
114	Quantitative one-dimensional thermal-wave cavity measurements of fluid thermophysical properties through equivalence studies with three-dimensional geometries. Review of Scientific Instruments, 2006, 77, 064906.	0.6	20
115	Case depth determination in heat-treated industrial steel products using photothermal radiometric interferometric phase minima. NDT and E International, 2007, 40, 158-167.	1.7	20
116	Noninvasive in-vehicle alcohol detection with wavelength-modulated differential photothermal radiometry. Biomedical Optics Express, 2014, 5, 2333.	1.5	20
117	Wavelengthâ€Modulated Differential Photoacoustic Spectroscopy (WMâ€ÐPAS) for noninvasive early cancer detection and tissue hypoxia monitoring. Journal of Biophotonics, 2016, 9, 388-395.	1.1	20
118	Review of the state of the art in cardiovascular endoscopy imaging of atherosclerosis using photoacoustic techniques with pulsed and continuous-wave optical excitations. Journal of Biomedical Optics, 2019, 24, 1.	1.4	20
119	Design and structural optimization of T-resonators for highly sensitive photoacoustic trace gas detection. Optics and Laser Technology, 2022, 148, 107695.	2.2	20
120	Photopyroelectric thinâ€film instrumentation and impulseâ€response detection. Part III: Performance and signal recovery techniques. Review of Scientific Instruments, 1987, 58, 2033-2043.	0.6	19
121	Photopyroelectric deconvolution of bulk and surface opticalâ€absorption and nonradiative energy conversion efficiency spectra in Ti:Al2O3crystals. Journal of Applied Physics, 1994, 75, 8090-8097.	1.1	19
122	Self-normalized photothermal techniques for thermal diffusivity measurements. Journal of Applied Physics, 2000, 88, 6815-6820.	1.1	19
123	Step-scan differential Fourier transform infrared photoacoustic spectroscopy (DFTIR-PAS): a spectral deconvolution method for weak absorber detection in the presence of strongly overlapping background absorptions. Optics Letters, 2017, 42, 1424.	1.7	19
124	Nonlinear inverse scattering methods for thermal-wave slice tomography: a wavelet domain approach. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1998, 15, 1545.	0.8	18
125	Deep subsurface electronic defect image contrast and resolution amplification in Si wafers using infrared photocarrier radiometry. Applied Physics Letters, 2004, 85, 1713-1715.	1.5	18
126	Optothermophysical properties of demineralized human dental enamel determined using photothermally generated diffuse photon density and thermal-wave fields. Applied Optics, 2010, 49, 6938.	2.1	18

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127	Contactless measurement of electrical parameters and estimation of current-voltage characteristics of Si solar cells using the illumination intensity dependence of lock-in carrierography (photoluminescence) images. Journal of Applied Physics, 2013, 114, .	1.1	18
128	The Effect of Acoustic Impedance on Subsurface Absorber Geometry Reconstruction using 1D Frequency-Domain Photoacoustics. Photoacoustics, 2015, 3, 132-142.	4.4	18
129	The application of frequency-domain photoacoustics to temperature-dependent measurements of the GrÃ¼neisen parameter in lipids. Photoacoustics, 2018, 11, 56-64.	4.4	18
130	Study of the thinâ€film palladium/hydrogen system by an optical transmittance method. Review of Scientific Instruments, 1996, 67, 3981-3983.	0.6	17
131	Laser infrared photothermal radiometric depth profilometry of steels and its potential in rail track evaluation. NDT and E International, 1999, 32, 437-443.	1.7	17
132	Laser infrared photothermal radiometry of electronic solids: Principles and applications to industrial semiconductor Si wafers. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2000, 18, 705-708.	0.9	17
133	Methods for surface roughness elimination from thermal-wave frequency scans in thermally inhomogeneous solids. Journal of Applied Physics, 2001, 90, 1255-1265.	1.1	17
134	Carrier-density-wave transport property depth profilometry using spectroscopic photothermal radiometry of silicon wafers II: Experimental and computational aspects. Journal of Applied Physics, 2003, 93, 5244-5250.	1.1	17
135	Electronic Defect and Contamination Monitoring in Si Wafers Using Spectrally Integrated Photocarrier Radiometry. Journal of the Electrochemical Society, 2006, 153, G283.	1.3	17
136	Reconstruction of radial thermal conductivity depth profile in case hardened steel rods. Journal of Applied Physics, 2009, 105, 083517.	1.1	17
137	Laser photothermal radiometric instrumentation for fast in-line industrial steel hardness inspection and case depth measurements. Applied Optics, 2009, 48, C11.	2.1	17
138	Robust multiparameter method of evaluating the optical and thermal properties of a layered tissue structure using photothermal radiometry. Applied Optics, 2009, 48, 3192.	2.1	17
139	Wavelength-modulated differential photothermal radiometry: Theory and experimental applications to glucose detection in water. Physical Review E, 2011, 84, 041917.	0.8	17
140	Quantitative measurements of charge carrier hopping transport properties in depleted-heterojunction PbS colloidal quantum dot solar cells from temperature dependent currentâ€“voltage characteristics. RSC Advances, 2016, 6, 93180-93194.	1.7	17
141	Surface recombination velocity imaging of wet-cleaned silicon wafers using quantitative heterodyne lock-in carrierography. Applied Physics Letters, 2018, 112, .	1.5	17
142	Lockâ€in rateâ€window thermomodulation (thermal wave) and photomodulation spectrometry. Review of Scientific Instruments, 1992, 63, 2977-2988.	0.6	16
143	Lock-in common-mode rejection demodulation: Measurement technique and applications to thermal-wave detection: Theoretical. Review of Scientific Instruments, 2000, 71, 2440-2444.	0.6	16
144	Ultrahigh-resolution pyroelectric thermal-wave technique for the measurement of thermal diffusivity of low-concentration water-alcohol mixtures. Review of Scientific Instruments, 2005, 76, 104901.	0.6	16

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145	Optoelectronic transport properties in amorphous/crystalline silicon solar cell heterojunctions measured by frequency-domain photocarrier radiometry: Multi-parameter measurement reliability and precision studies. Review of Scientific Instruments, 2015, 86, 033901.	0.6	16
146	Photothermal electrostatics of the Pdâ€polyvinylidene fluoride photopyroelectric hydrogen gas sensor. Journal of Applied Physics, 1991, 70, 4496-4504.	1.1	15
147	Broadening effects and ergodicity in deep level photothermal spectroscopy of defect states in semi-insulating GaAs: A combined temperature-, pulse-rate-, and time-domain study of defect state kinetics. Journal of Applied Physics, 2009, 105, .	1.1	15
148	Photothermal determination of thermal diffusivity and polymerization depth profiles of polymerized dental resins. Journal of Applied Physics, 2009, 106, .	1.1	15
149	Optical and thermal depth profile reconstructions of inhomogeneous photopolymerization in dental resins using photothermal waves. Journal of Applied Physics, 2010, 108, .	1.1	15
150	Non-destructive measurements of large case depths in hardened steels using the thermal-wave radar. NDT and E International, 2012, 45, 16-21.	1.7	15
151	Monitoring of ion implantation in Si with carrier plasma waves using infrared photothermal radiometry. Applied Physics Letters, 1997, 71, 1531-1533.	1.5	14
152	Characterization of hardened cylindrical C1018 steel rods (0.14%â€“0.2% C, 0.6%â€“0.9% Mn) using photothermal radiometry. Review of Scientific Instruments, 2007, 78, 054902.	0.6	14
153	Noncontact deep level photo-thermal spectroscopy: Technique and application to semi-insulating GaAs Wafers. Applied Physics Letters, 2007, 90, 062119.	1.5	14
154	Influence of laser beam size on measurement sensitivity of thermophysical property gradients in layered structures using thermal-wave techniques. Journal of Applied Physics, 2008, 103, 043510.	1.1	14
155	Truncated-correlation photothermal coherence tomography of artificially demineralized animal bones: two- and three-dimensional markers for mineral loss monitoring. Journal of Biomedical Optics, 2014, 19, 026015.	1.4	14
156	Photoacoustic and ultrasound imaging of cancellous bone tissue. Journal of Biomedical Optics, 2015, 20, 076016.	1.4	14
157	Step-scan T cell-based differential Fourier transform infrared photoacoustic spectroscopy (DFTIR-PAS) for detection of ambient air contaminants. Applied Physics B: Lasers and Optics, 2016, 122, 1.	1.1	14
158	Step-Scan T-Cell Fourier Transform Infrared Photoacoustic Spectroscopy (FTIR-PAS) for Monitoring Environmental Air Pollutants. International Journal of Thermophysics, 2016, 37, 1.	1.0	14
159	Colloidal quantum dot solar cell power conversion efficiency optimization using analysis of currentâ€voltage characteristics and electrode contact imaging by lockâ€in carrierography. Progress in Photovoltaics: Research and Applications, 2017, 25, 1034-1050.	4.4	14
160	Single frequency thermal wave radar: A next-generation dynamic thermography for quantitative non-destructive imaging over wide modulation frequency ranges. Review of Scientific Instruments, 2018, 89, 044901.	0.6	14
161	Perspective: Principles and specifications of photothermal imaging methodologies and their applications to non-invasive biomedical and non-destructive materials imaging. Journal of Applied Physics, 2018, 124, .	1.1	14
162	Application of linear frequency modulated laser ultrasonic radar in reflective thickness and defect non-destructive testing. NDT and E International, 2019, 102, 84-89.	1.7	14

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163	Hamiltonian plasmaâ€harmonic oscillator theory: Generalized depth profilometry of electronically continuously inhomogeneous semiconductors and the inverse problem. Journal of Applied Physics, 1996, 80, 5278-5288.	1.1	13
164	Measurements of the thermal diffusivity of aluminum using frequency-scanned, transient, and rate window photothermal radiometry. Theory and experiment. International Journal of Thermophysics, 1997, 18, 221-250.	1.0	13
165	Lock-in and Heterodyne Carrierographic Imaging Characterization of Industrial Multicrystalline Silicon Solar Cells. International Journal of Thermophysics, 2012, 33, 2095-2102.	1.0	13
166	Effective interface state effects in hydrogenated amorphous-crystalline silicon heterostructures using ultraviolet laser photocarrier radiometry. Journal of Applied Physics, 2013, 114, .	1.1	13
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