

# Humberto Cabrera

## List of Publications by Year in descending order

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Version: 2024-02-01

69  
papers

756  
citations

566801

15  
h-index

642321

23  
g-index

71  
all docs

71  
docs citations

71  
times ranked

680  
citing authors

#	ARTICLE	IF	CITATIONS
1	Optimizing and calibrating a mode-mismatched thermal lens experiment for low absorption measurement. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2006, 23, 1408.	0.9	69
2	Absorption coefficient of nearly transparent liquids measured using thermal lens spectrometry. <i>Condensed Matter Physics</i> , 2006, 9, 385.	0.3	55
3	A thermal lens model including the Soret effect. <i>Applied Physics Letters</i> , 2009, 94, 051103.	1.5	39
4	Temporal difference method for processing dynamic speckle patterns. <i>Optics Communications</i> , 2010, 283, 4972-4977.	1.0	34
5	Thermal diffusivity of few-layers graphene measured by an all-optical method. <i>Journal Physics D: Applied Physics</i> , 2015, 48, 465501.	1.3	31
6	Trace detection and photothermal spectral characterization by a tuneable thermal lens spectrometer with white-light excitation. <i>Talanta</i> , 2018, 183, 158-163.	2.9	26
7	Optimized frequency dependent photothermal beam deflection spectroscopy. <i>Laser Physics Letters</i> , 2016, 13, 125701.	0.6	23
8	High sensitivity thermal lens microscopy: Cr-VI trace detection in water. <i>Talanta</i> , 2017, 170, 260-265.	2.9	22
9	Cu <sub>3</sub> TaSe <sub>4</sub> and Cu <sub>3</sub> NbSe <sub>4</sub> : X-ray diffraction, differential thermal analysis, optical absorption and Raman scattering. <i>Journal of Alloys and Compounds</i> , 2016, 658, 749-756.	2.8	21
10	Digital imaging information technology for biospeckle activity assessment relative to bacteria and parasites. <i>Lasers in Medical Science</i> , 2017, 32, 1375-1386.	1.0	21
11	Measurement of the Soret coefficients in organic/water mixtures by thermal lens spectrometry. <i>Comptes Rendus - Mecanique</i> , 2013, 341, 372-377.	2.1	20
12	Encapsulation efficiency of CdSe/ZnS quantum dots by liposomes determined by thermal lens microscopy. <i>Biomedical Optics Express</i> , 2015, 6, 3898.	1.5	20
13	A multi-thermal-lens approach to evaluation of multi-pass probe beam configuration in thermal lens spectrometry. <i>Analytica Chimica Acta</i> , 2020, 1100, 182-190.	2.6	19
14	Quantitative Laser Biospeckle Method for the Evaluation of the Activity of <i>Trypanosoma cruzi</i> Using VDRL Plates and Digital Analysis. <i>PLoS Neglected Tropical Diseases</i> , 2016, 10, e0005169.	1.3	18
15	Thermal lens measurement of the Soret coefficient in acetone/water mixtures. <i>Journal of Chemical Physics</i> , 2009, 131, 031106.	1.2	17
16	Thermal Lensing of Multi-walled Carbon Nanotube Solutions as Heat Transfer Nanofluids. <i>ACS Applied Nano Materials</i> , 2021, 4, 3416-3425.	2.4	16
17	Determination of petrophysical properties of sedimentary rocks by optical methods. <i>Sedimentary Geology</i> , 2017, 350, 72-79.	1.0	15
18	Electronic, optical and thermoelectric properties of bulk and surface (001) CuInTe <sub>2</sub> : A first principles study. <i>Journal of Alloys and Compounds</i> , 2017, 699, 1003-1011.	2.8	15

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19	Cavity Ring-Down Spectroscopy for Molecular Trace Gas Detection Using A Pulsed DFB QCL Emitting at 6.8 $\mu\text{m}$ . <i>Photonics</i> , 2020, 7, 74.	0.9	15
20	Mode-mismatched confocal thermal-lens microscope with collimated probe beam. <i>Review of Scientific Instruments</i> , 2015, 86, 053701.	0.6	14
21	Structural Characterization of Two New Quaternary Chalcogenides: $\text{CuCo}_2\text{InTe}_4$ and $\text{CuNi}_2\text{InTe}_4$ . <i>Materials Research</i> , 2016, 19, 1423-1428.	0.6	12
22	Speckle pattern analysis of crumpled papers. <i>Applied Optics</i> , 2019, 58, 6549.	0.9	12
23	Online fast Biospeckle monitoring of drug action in <i>Trypanosoma cruzi</i> parasites by motion history image. <i>Lasers in Medical Science</i> , 2016, 31, 1447-1454.	1.0	11
24	Real time monitoring of drug action on <i>T. cruzi</i> parasites using a biospeckle laser method. <i>Laser Physics</i> , 2016, 26, 065603.	0.6	10
25	A liquids refractive index spectrometer. <i>Sensors and Actuators B: Chemical</i> , 2016, 229, 249-256.	4.0	10
26	Absorption Spectra of Ethanol and Water Using a Photothermal Lens Spectrophotometer. <i>Applied Spectroscopy</i> , 2018, 72, 1069-1073.	1.2	10
27	Frequency-resolved photothermal lens: An alternative approach for thermal diffusivity measurements in weak absorbing thin samples. <i>International Journal of Heat and Mass Transfer</i> , 2020, 158, 120036.	2.5	10
28	Through-Plane and In-Plane Thermal Diffusivity Determination of Graphene Nanoplatelets by Photothermal Beam Deflection Spectrometry. <i>Materials</i> , 2021, 14, 7273.	1.3	10
29	Thermoelectric transport properties of $\text{CuFeInTe}_3$ . <i>Journal of Alloys and Compounds</i> , 2015, 651, 490-496.	2.8	9
30	Thermal lens microscope sensitivity enhancement using a passive Fabry-Pérot-type optical cavity. <i>Laser Physics Letters</i> , 2016, 13, 055702.	0.6	9
31	Pump-Probe Photothermal Self-Mixing System for Highly Sensitive Trace Detection. <i>IEEE Sensors Journal</i> , 2019, 19, 2547-2552.	2.4	9
32	Photodegradation mechanisms of reactive blue 19 dye under UV and simulated solar light irradiation. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2021, 252, 119481.	2.0	9
33	Thermo-Optical Characterization of Cu- and Zr-Modified $\text{TiO}_2$ Photocatalysts by Beam Deflection Spectrometry. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 10937.	1.3	9
34	Thermoelectric properties of nanostructured porous silicon. <i>Materials Research Express</i> , 2018, 5, 015004.	0.8	7
35	Application of thermal lens microscopy (TLM) for measurement of Cr(VI) traces in wastewater. <i>Journal of Environmental Management</i> , 2019, 232, 305-309.	3.8	7
36	Laguerre-Gaussian induced temperature and refractive index profiles in thermal lens effect. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2021, 38, 52.	0.9	7

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37	Imaging functional blood vessels by the laser speckle imaging (LSI) technique using Q-statistics of the generalized differences algorithm. <i>Microvascular Research</i> , 2016, 107, 46-50.	1.1	6
38	Electrical, thermal and electrochemical properties of disordered carbon prepared from palygorskite and cane molasses. <i>Journal of Solid State Chemistry</i> , 2017, 246, 404-411.	1.4	6
39	An electrophoresis approach with online thermal lens detection to monitoring DNA surface coatings on gold nanoparticles. <i>Microchemical Journal</i> , 2022, 173, 106961.	2.3	6
40	24 mJ Cr <sup>4+</sup> :forsterite four-stage master-oscillator power-amplifier laser system for high resolution mid-infrared spectroscopy. <i>Review of Scientific Instruments</i> , 2019, 90, 093002.	0.6	5
41	Sulfophosphate Glass Doped with Er <sup>3+</sup> and TiO <sub>2</sub> Nanoparticles: Thermo-Optical Characterization by Photothermal Spectroscopy. <i>Photonics</i> , 2021, 8, 115.	0.9	5
42	DFG-based mid-IR tunable source with 0.5 mJ energy and a 30 pm linewidth. <i>Optics Letters</i> , 2020, 45, 5526.		
43	Determination of Fe(II) by Optimized Thermal Lens Microscope. <i>International Journal of Thermophysics</i> , 2015, 36, 2434-2440.	1.0	4
44	Thermal diffusivity measurement by lock-in photothermal shadowgraph method. <i>Journal of Applied Physics</i> , 2016, 119, 164902.	1.1	4
45	Biospeckle laser digital image processing for quantitative and statistical evaluation of the activity of ciprofloxacin on <i>Escherichia coli</i> K-12. <i>Laser Physics</i> , 2019, 29, 075603.	0.6	4
46	Pulse amplification in a Cr <sup>4+</sup> :forsterite single longitudinal mode (SLM) multi-pass amplifier. <i>Laser Physics</i> , 2019, 29, 065801.	0.6	4
47	Photothermal lens technique: a comparison between conventional and self-mixing schemes. <i>Laser Physics</i> , 2019, 29, 055703.	0.6	4
48	First measurement of the temperature dependence of muon transfer rate from muonic hydrogen atoms to oxygen. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2020, 384, 126667.	0.9	4
49	Measurement of the muon transfer rate from muonic hydrogen to oxygen in the range 70-336 K. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2021, 403, 127401.	0.9	4
50	Thermal transport properties for unveiling the mechanism of BiSbTe alloys in thermoelectric generation: A glance from synchrotron radiation Bi L <sub>3</sub> -XAFS. <i>Journal of Materials Research and Technology</i> , 2022, 18, 2261-2272.	2.6	4
51	On the Absorption and Photoluminescence Properties of Pure ZnSe and Co-Doped ZnSe:Eu <sup>3+</sup> /Yb <sup>3+</sup> Crystals. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 4248.	1.3	4
52	Thermal Diffusivity and Conductivity of Polyolefins by Thermal Lens Technique. <i>Polymers</i> , 2022, 14, 2707.	2.0	4
53	Measurement of Nonlinear Absorption Coefficients of Organic Materials by Mode-Mismatched Z-scan Thermal Lensing Technique. <i>Applied Spectroscopy</i> , 2007, 61, 1128-1133.	1.2	3
54	Experimental determination of trapping efficiency of optical tweezers. <i>Philosophical Magazine Letters</i> , 2013, 93, 655-663.	0.5	3

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55	Photoconductance of gold nano-island film induced by plasmonic effect. <i>Optik</i> , 2019, 181, 140-145.	1.4	3
56	Online electrophoretic nanoanalysis using miniaturized gel electrophoresis and thermal lens microscopy detection. <i>Journal of Chromatography A</i> , 2021, 1657, 462596.	1.8	3
57	A modified mode-mismatched thermal lens spectrometry Z-scan model: An exact general approach. <i>Optik</i> , 2022, 265, 169399.	1.4	3
58	Preparation and characterization of $(\text{CuInTe}_2)_{1-x}(\text{TaTe})_x$ solid solutions ( $0 < x < 1$ ). <i>Journal of Alloys and Compounds</i> , 2018, 747, 176-188.	2.8	2
59	Thermal diffusivity measurement in thin metallic filaments using the mirage method with multiple probe beams and a digital camera. <i>Review of Scientific Instruments</i> , 2018, 89, 024904.	0.6	2
60	Optical encryption using phase modulation generated by thermal lens effect. <i>Journal of Optics (United Kingdom)</i> , 2010, 11, 024004.	1.0	2
61	The Effect of Photodynamic Therapy on Contiguous Untreated Tumor. <i>Dermatologic Surgery</i> , 2012, 38, 1097-1099.	0.4	1
62	<title>Roughness and gradient parameters of laser beams</title>. , 2001, 4419, 122.		0
63	<title>Gaussian beam characterization using the thermal lens method</title>. , 2004, 5622, 972.		0
64	Tratamiento de carcinoma basocelular con terapia fotodinámica sistémica. <i>Revista Colombiana De Cancerología</i> , 2012, 16, 154-161.	0.0	0
65	Experimental study of the light absorption in sea water by thermal lens spectroscopy. <i>Journal of Physics: Conference Series</i> , 2016, 672, 012021.	0.3	0
66	Laboratory tests for MIR light detection and transport with specialty optical fibres. <i>Journal of Instrumentation</i> , 2020, 15, C04030-C04030.	0.5	0
67	Crystal structure and powder X-ray diffraction data of the super-paramagnetic compound $\text{CuFeInTe}_3$ . <i>Revista Mexicana De Física</i> , 2021, 67, 305-311.	0.2	0
68	Experimental Investigation of Thermal Diffusion in Binary Fluid Mixtures. <i>Environmental Science and Engineering</i> , 2014, , 259-270.	0.1	0
69	Photothermal pump-probe lock-in shadowgraph technique using a thermographic camera for thermal diffusivity measurement in thin metallic filaments. , 0, , .		0