Luis C Malacarne

List of Publications by Year
in descending order

122	2,148	218677	315739
papers	citations	26 h-index	38 g-index

122	122	122	1284
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Photoactivity of hypericin: from natural product to antifungal application. Critical Reviews in Microbiology, 2023, 49, 38-56.	6.1	6
2	Photoacoustic and photothermal and the photovoltaic efficiency of solar cells: A tutorial. Journal of Applied Physics, 2022, 131, .	2.5	6
3	Spectroscopic and photothermal characterization of graphene quantum dots for antimicrobial applications. Journal of Applied Physics, 2022, 131, 155102.	2.5	3
4	Unveiling bulk and surface radiation forces in a dielectric liquid. Light: Science and Applications, 2022, 11, 103.	16.6	17
5	Determination of active ingredients in alcoholâ€based gel by spectroscopic techniques and chemometric analysis. Journal of Chemometrics, 2022, 36, .	1.3	0
6	The correlation of physicochemical properties of edible vegetable oils by chemometric analysis of spectroscopic data. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2021, 245, 118877.	3.9	14
7	Photophysical characterization of Hypericin-loaded in micellar, liposomal and copolymer-lipid nanostructures based F127 and DPPC liposomes. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2021, 248, 119173.	3.9	12
8	Nanoencapsulated hypericin in P-123 associated with photodynamic therapy for the treatment of dermatophytosis. Journal of Photochemistry and Photobiology B: Biology, 2021, 215, 112103.	3.8	12
9	Studies of the early stages of the dynamic setting process of chemically activated restorative glass-ionomer cements. Biomaterial Investigations in Dentistry, 2021, 8, 39-47.	1.8	1
10	Induction and detection of pressure waves by pulsed thermal lens technique in waterâ€“ethanol mixtures. Applied Optics, 2021, 60, 4029.	1.8	5
11	Photoactivation of Erythrosine in simulated body fluids. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2021, 259, 119867.	3.9	3
12	Theranostic verteporfin- loaded lipid-polymer liposome for photodynamic applications. Journal of Photochemistry and Photobiology B: Biology, 2020, 212, 112039.	3.8	18
13	An Experimental Investigation of Sampleâ€“Fluid Heat Coupling Effect in Thermal Lens Technique. Applied Spectroscopy, 2020, 74, 1274-1279.	2.2	3
14	Photothermal characterization of biodiesel and petroleum diesel fuelsâ€”A review and perspective. Journal of Applied Physics, 2020, 128, 190902.	2.5	8
15	Thermoelastic response of materials with thick-disk geometry excited by a ring-shaped laser beam. Journal of Applied Physics, 2020, 128, 113101.	2.5	3
16	Influence of edge effects on laser-induced surface displacement of opaque materials by photothermal interferometry. Journal of Applied Physics, 2020, 128, .	2.5	9
17	Nanosecond pressure transient detection of laser-induced thermal lens. Applied Optics, 2020, 59, 3682.	1.8	8
18	Laser induced thermoelastic surface displacement in solids detected simultaneously by photothermal mirror and interferometry. Optics Express, 2020, 28, 7116.	3.4	7

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19	Glass engineering to enhance Si solar cells: A case study of Pr3+â^'Yb3+ codoped tellurite-tungstate as spectral converter. Journal of Non-Crystalline Solids, 2019, 526, 119717.	3.1	8
20	In situ measurements of photoexpansion in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.svg"><mml:mrow><mml:mi>A</mml:mi><mml:msub><mml:mrow><mml:mi>s</mml:mi></mml:mrow><mml:mrow><mml:m glass by atomic force microscopy. Optical Materials, 2019, 94, 9-14.	3.6	13
21	From Protohypericin to Hypericin: Photoconversion Analysis Using a Time-Resolved Thermal Lens Technique. Applied Spectroscopy, 2019, 73, 936-944.	2.2	3
22	Standard and modified Judd-Ofelt theories in Pr3+-doped calcium aluminosilicate glasses: A comparative analysis. Journal of Alloys and Compounds, 2019, 780, 705-710.	5.5	8
23	Quantum yield measurements by thermal lens in highly absorbing samples: The case of highly doped rhodamine B organic/silica xerogels. Physical Review Materials, 2019, 3, .	2.4	5
24	Laser induced wavefront distortion in thick-disk material: An analytical description. Optical Materials, 2018, 75, 574-579.	3.6	4
25	Assessing thermal and optical properties of biodiesel by thermal lens spectrometry: Theoretical and experimental aspects. Fuel, 2018, 217, 404-408.	6.4	13
26	Investigation of Thermophysical Properties of Thermal Degraded Biodiesels. International Journal of Thermophysics, 2018, 39, 1.	2.1	4
27	Characterization of Heat Diffusion Properties of Rubberized Two-Layer Systems Using Open Photoacoustic Cell Spectroscopy. Applied Spectroscopy, 2018, 72, 251-256.	2.2	2
28	Upconversion luminescence and hypersensitive transitions of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si0034.gif" overflow="scroll"><mml:msup><mml:mrow><mml:mi>Pr</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn><mml:mo>+</mm calcium aluminosilicate glasses. Journal of Luminescence, 2018, 202, 27-31.	3.1	10
29	Potentiometric sensors with chalcogenide glasses as sensitive membranes: A short review. Journal of Non-Crystalline Solids, 2018, 495, 8-18.	3.1	28
30	Accessing thermo-mechanical properties of semiconductors using a pump-probe surface displacement method. Journal of Applied Physics, 2017, 121, 195101.	2.5	6
31	Thermal Lens Temperature Scanning technique for evaluation of oxidative stability and time of transesterification during biodiesel synthesis. Fuel, 2017, 202, 78-84.	6.4	13
32	Vibrational Spectroscopy and Thermophysical Properties of Ultralow Sulfur Dieselâ€"Alternative Fuel Binary Blends. Energy & Fuels, 2017, 31, 13775-13784.	5.1	3
33	Evaluation of Thermo-oxidative Stability of Biodiesel. Energy & Fuels, 2017, 31, 7132-7137.	5.1	11
34	Analysis of the Thermo-Reflectivity Coefficient Influence Using Photothermal Pumpâ€"Probe Techniques. Applied Spectroscopy, 2017, 71, 970-976.	2.2	2
35	Random Walks Associated with Nonlinear Fokkerâ€"Planck Equations. Entropy, 2017, 19, 155.	2.2	16
36	Generation and detection of thermoelastic waves in metals by a photothermal mirror method. Applied Physics Letters, 2016, 109, .	3.3	11

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37	Quantitative assessment of radiation force effect at the dielectric air-liquid interface. Scientific Reports, 2016, 6, 20515.	3.3	19
38	Correlations among thermophysical properties, ignition quality, volatility, chemical composition, and kinematic viscosity of petroleum distillates. Fuel, 2016, 163, 324-333.	6.4	15
39	Photodegradation in Micellar Aqueous Solutions of Erythrosin Esters Derivatives. Applied Spectroscopy, 2015, 69, 883-888.	2.2	11
40	Application of Photoreactive Barium Titanate (BaTiO3) Beam Fanning to the Photothermal Mirror Technique: An Experimental Analysis. Applied Spectroscopy, 2015, 69, 794-801.	2.2	0
41	Direct measurement of photo-induced nanoscale surface displacement in solids using atomic force microscopy. Optical Materials, 2015, 48, 71-74.	3.6	4
42	Investigation into photostability of soybean oils by thermal lens spectroscopy. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2015, 145, 125-129.	3.9	10
43	Modeling population and thermal lenses in the presence of Auger Upconversion for Nd^3+ doped materials. Optics Express, 2015, 23, 15983.	3.4	2
44	Unravelling the effects of radiation forces in water. Nature Communications, 2014, 5, 4363.	12.8	82
45	Pulsed photothermal mirror technique: characterization of opaque materials. Applied Optics, 2014, 53, 7985.	2.1	17
46	Discriminating the role of sample length in thermal lensing of solids. Optics Letters, 2014, 39, 4013.	3.3	19
47	On the use of photothermal techniques to study NiTi phase transitions. Materials Research Express, 2014, 1, 026502.	1.6	7
48	Role of Photophysics Processes in Thermal Lens Spectroscopy of Fluids: A Theoretical Study. Journal of Physical Chemistry A, 2014, 118, 5983-5988.	2.5	9
49	Combined Photothermal Lens and Photothermal Mirror Characterization of Polymers. Applied Spectroscopy, 2014, 68, 777-783.	2.2	14
50	Thermal mirror spectrometry: An experimental investigation of optical glasses. Optical Materials, 2013, 35, 1129-1133.	3.6	14
51	Investigation of the Photobleaching Process of Eosin Y in Aqueous Solution by Thermal Lens Spectroscopy. Journal of Physical Chemistry B, 2013, 117, 1932-1937.	2.6	48
52	Surface deformation effects induced by radiation pressure and electrostriction forces in dielectric solids. Applied Physics Letters, 2013, 102, .	3.3	15
53	Role of photothermal effect in photoexpansion of chalcogenide glasses. Physica Status Solidi (B): Basic Research, 2013, 250, 983-987.	1.5	14
54	Pulsed-Laser Time-Resolved Thermal Mirror Technique in Low-Absorbance Homogeneous Linear Elastic Materials. Applied Spectroscopy, 2013, 67, 1111-1116.	2.2	14

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55	Spectroscopic investigation and heat generation of Yb^3+/Ho^3+ codoped aluminosilicate glasses looking for the emission at 2ÂĨ¼m. Journal of the Optical Society of America B: Optical Physics, 2013, 30, 1322.	2.1	9
56	Modeling the population lens effect in thermal lens spectrometry. Optics Letters, 2013, 38, 422.	3.3	24
57	Resonant excited state absorption and relaxation mechanisms in Tb^3+-doped calcium aluminosilicate glasses: an investigation by thermal mirror spectroscopy. Optics Letters, 2013, 38, 4667.	3.3	13
58	Laser-induced lensing effects in solid-state optical refrigerators. Applied Physics Letters, 2013, 102, .	3.3	7
59	Laser-induced wavefront distortion in optical materials: a general model. Journal of the Optical Society of America B: Optical Physics, 2012, 29, 3355.	2.1	18
60	Unified theoretical model for calculating laser-induced wavefront distortion in optical materials. Journal of the Optical Society of America B: Optical Physics, 2012, 29, 1772.	2.1	30
61	A 3-dimensional time-resolved photothermal deflection â€œMirageâ€•method. Applied Physics Letters, 2012, 100, .	3.3	17
62	Time-resolved mirage method: A three-dimensional theory and experiments. Journal of Applied Physics, 2012, 111, 093502.	2.5	8
63	A Theoretical and Experimental Study of Time-Resolved Thermal Mirror with Non-Absorbing Heat-Coupling Fluids. Applied Spectroscopy, 2012, 66, 1461-1467.	2.2	22
64	Scale-invariant structure of size fluctuations in plants. Scientific Reports, 2012, 2, 328.	3.3	3
65	Laser-Induced Chemical Reaction Characterization in Photosensitive Aqueous Solutions. Journal of Physical Chemistry B, 2011, 115, 9417-9420.	2.6	17
66	Finite-size effect on the surface deformation thermal mirror method. Journal of the Optical Society of America B: Optical Physics, 2011, 28, 1735.	2.1	27
67	Time-Resolved Thermal Lens and Thermal Mirror Spectroscopy with Sampleâ€”Fluid Heat Coupling: A Complete Model for Material Characterization. Applied Spectroscopy, 2011, 65, 99-104.	2.2	42
68	Soret effect and photochemical reaction in liquids with laser-induced local heating. Optics Express, 2011, 19, 4047.	3.4	47
69	Spreading Patterns of the Influenza A (H1N1) Pandemic. PLoS ONE, 2011, 6, e17823.	2.5	10
70	Temperature dependence of the thermophysical properties of Neodymium doped borate glasses. Optical Materials, 2011, 33, 1563-1568.	3.6	2
71	On the dynamics of bubbles in boiling water. Chaos, Solitons and Fractals, 2011, 44, 178-183.	5.1	2
72	Thermo-optical characteristics and concentration quenching effects in Nd3+doped yttrium calcium borate glasses. Journal of Chemical Physics, 2011, 134, 124503.	3.0	7

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73	Determination of photochemical reaction rates using thermal lens spectrometry. Journal of Physics: Conference Series, 2010, 214, 012125.	0.4	3
74	Material characterization with top-hat cw laser induced photothermal techniques: A short review. Journal of Physics: Conference Series, 2010, 214, 012014.	0.4	4
75	Thermal mirror and thermal lens techniques for semitransparent material characterization. Journal of Physics: Conference Series, 2010, 214, 012016.	0.4	3
76	Dynamics of tournaments: the soccer case. European Physical Journal B, 2010, 75, 327-334.	1.5	19
77	Earthquake-like patterns of acoustic emission in crumpled plastic sheets. Europhysics Letters, 2010, 92, 29001.	2.0	14
78	Analytical solution for mode-mismatched thermal lens spectroscopy with sample-fluid heat coupling. Journal of Applied Physics, 2010, 107, .	2.5	12
79	Pulsed-laser excited thermal lens spectroscopy with sample-fluid heat coupling. Journal of Applied Physics, 2010, 107, 083512.	2.5	9
80	q-distributions in complex systems: a brief review. Brazilian Journal of Physics, 2009, 39, 468-474.	1.4	87
81	Arrhenius behavior of hydrocarbon fuel photochemical reaction rates by thermal lens spectroscopy. Applied Physics Letters, 2009, 95, .	3.3	27
82	Top-hat cw laser induced thermal mirror: aÂcompleteÂmodel forÂmaterialÂcharacterization. Applied Physics B: Lasers and Optics, 2009, 94, 473-481.	2.2	19
83	Thermal-lens study of photochemical reaction kinetics. Optics Letters, 2009, 34, 3460.	3.3	30
84	Solutions for a fractional nonlinear diffusion equation with external force and absorbent term. Journal of Statistical Mechanics: Theory and Experiment, 2009, 2009, P02048.	2.3	6
85	An expansion approach in rubber elasticity. Polymer, 2008, 49, 1968-1971.	3.8	0
86	Fractional approach, quantum statistics, and non-crystalline solids at very low temperatures. European Physical Journal B, 2008, 62, 155-158.	1.5	27
87	Top-hat cw-laser-induced time-resolved mode-mismatched thermal lens spectroscopy for quantitative analysis of low-absorption materials. Optics Letters, 2008, 33, 1464.	3.3	28
88	Time-resolved thermal mirror technique with top-hat cw laser excitation. Optics Express, 2008, 16, 12214.	3.4	16
89	Time-resolved thermal mirror method: A theoretical study. Journal of Applied Physics, 2008, 104, .	2.5	47
90	Nanoscale surface displacement detection in high absorbing solids by time-resolved thermal mirror. Applied Physics Letters, 2008, 92, .	3.3	37

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91	Similarities between the dynamics of geomagnetic signal and of heartbeat intervals. Europhysics Letters, 2007, 80, 50006.	2.0	13
92	Time-resolved thermal mirror for nanoscale surface displacement detection in low absorbing solids. Applied Physics Letters, 2007, 91, .	3.3	52
93	Fractional diffusion equation with an absorbent term and a linear external force: Exact solution. Physics Letters, Section A: General, Atomic and Solid State Physics, 2007, 366, 346-350.	2.1	21
94	Statistics of football dynamics. European Physical Journal B, 2007, 57, 357-363.	1.5	29
95	An improved description of the dielectric breakdown in oxides based on a generalized Weibull distribution. Physica A: Statistical Mechanics and Its Applications, 2006, 361, 209-215.	2.6	29
96	A non-Gaussian model in polymeric network. European Physical Journal E, 2006, 20, 395-399.	1.6	4
97	Scaling behavior in the dynamics of citations to scientific journals. Europhysics Letters, 2006, 75, 673-679.	2.0	15
98	Nonlocal model for nematic liquid-crystal elastomers. Physical Review E, 2006, 74, 061802.	2.1	18
99	General solution of the diffusion equation with a nonlocal diffusive term and a linear force term. Physical Review E, 2006, 74, 042101.	2.1	6
100	Anomalous diffusion and fractional diffusion equation: anisotropic media and external forces. Physics Letters, Section A: General, Atomic and Solid State Physics, 2005, 347, 160-169.	2.1	24
101	Statistical properties of the circulation of magazines and newspapers. Europhysics Letters, 2005, 72, 865-871.	2.0	13
102	Logarithmic diffusion and porous media equations: A unified description. Physical Review E, 2005, 72, 031106.	2.1	21
103	Nonlinear diffusion equation, Tsallis formalism and exact solutions. Journal of Mathematical Physics, 2005, 46, 123303.	1.1	23
104	Anomalous diffusion and anisotropic nonlinear Fokkerâ€“Planck equation. Physica A: Statistical Mechanics and Its Applications, 2004, 342, 16-21.	2.6	22
105	Variational methods in nonextensive Tsallis statistics: a comparative study. Physica A: Statistical Mechanics and Its Applications, 2004, 344, 562-567.	2.6	2
106	Anomalous diffusion, nonlinear fractional Fokkerâ€“Planck equation and solutions. Physica A: Statistical Mechanics and Its Applications, 2003, 319, 245-252.	2.6	53
107	q-exponential, Weibull, and q-Weibull distributions: an empirical analysis. Physica A: Statistical Mechanics and Its Applications, 2003, 324, 678-688.	2.6	73
108	Anomalous diffusion: Fractional Fokkerâ€“Planck equation and its solutions. Journal of Mathematical Physics, 2003, 44, 2179-2185.	1.1	38

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109	Average entropy of a subsystem from its average Tsallis entropy. Physical Review E, 2002, 65, 046131.	2.1	26
110	N-dimensional nonlinear Fokker-Planck equation with time-dependent coefficients. Physical Review E, 2002, 65, 052101.	2.1	41
111	Nonlinear anomalous diffusion equation and fractal dimension: Exact generalized Gaussian solution. Physical Review E, 2002, 65, 041108.	2.1	37
112	Nonlinear equation for anomalous diffusion:â€, Unified power-law and stretched exponential exact solution. Physical Review E, 2001, 63, 030101.	2.1	88
113	Remarks on (1â^'q) expansion and factorization approximation in the Tsallis nonextensive statistical mechanics. Physics Letters, Section A: General, Atomic and Solid State Physics, 2001, 289, 44-50.	2.1	18
114	q-exponential distribution in urban agglomeration. Physical Review E, 2001, 65, 017106.	2.1	60
115	Regularities in football goal distributions. Physica A: Statistical Mechanics and Its Applications, 2000, 286, 391-395.	2.6	44
116	Path integral approach to the nonextensive canonical density matrix. Physica A: Statistical Mechanics and Its Applications, 2000, 278, 201-213.	2.6	10
117	Non-Abelian Aharonov-Bohm scattering of spin 1/2 particles. Physical Review D, 2000, 62, .	4.7	1
118	Non-Abelian Aharonov-Bohm scattering of spinless particles. Physical Review D, 1999, 59, .	4.7	5
119	Spin-1 massive particles coupled to a Chern-Simons field. Physical Review D, 1999, 60, .	4.7	1
120	Quantum corrections for general partition functions. Physica A: Statistical Mechanics and Its Applications, 1998, 253, 507-516.	2.6	7
121	Perturbation and Variational Methods in Nonextensive Tsallis Statistics. Physical Review Letters, 1998, 80, 218-221.	7.8	51
122	Contribution of the smectic-nematic interface to the surface energy. Physical Review E, 1997, 55, R1279-R1281.	2.1	1