Luiz G CanÃ§ado

List of Publications by Year
in descending order

100 papers	14,793 citations	70961 41 h-index	48187 88 g-index
100 all docs	100 docs citations	100 times ranked	19858 citing authors

#	Article	IF	Citations
1	Deepâ€learningâ€based denoising approach to enhance Raman spectroscopy in massâ€produced graphene. Journal of Raman Spectroscopy, 2022, 53, 863-871.	1.2	10
2	International interlaboratory comparison of Raman spectroscopic analysis of CVD-grown graphene. 2D Materials, 2022, 9, 035010.	2.0	7
3	Inclusion of the sample-tip interaction term in the theory of tip-enhanced Raman spectroscopy. Physical Review B, 2022, 105, .	1.1	3
4	Optical Nanoantennas for Tip-Enhanced Raman Spectroscopy. IEEE Journal of Selected Topics in Quantum Electronics, 2021, 27, 1-11.	1.9	21
5	Hard, transparent, sp3-containing 2D phase formed from few-layer graphene under compression. Carbon, 2021, 173, 744-757.	5.4	31
6	Event chronology analysis of the historical development of tipâ€enhanced Raman spectroscopy. Journal of Raman Spectroscopy, 2021, 52, 587-599.	1.2	5
7	Twisted Bilayer Graphene: A Versatile Fabrication Method and the Detection of Variable Nanometric Strain Caused by Twist-Angle Disorder. ACS Applied Nano Materials, 2021, 4, 1858-1866.	2.4	19
8	Localization of lattice dynamics in low-angle twisted bilayer graphene. Nature, 2021, 590, 405-409.	13.7	139
9	Topological vectors as a fingerprinting system for 2D-material flake distributions. Npj 2D Materials and Applications, 2021, 5, .	3.9	6
10	Nano-optical Imaging of In-Plane Homojunctions in Graphene and MoS₂ van der Waals Heterostructures on Talc and SiO₂. Journal of Physical Chemistry Letters, 2021, 12, 7625-7631.	2.1	14
11	Studying 2D materials with advanced Raman spectroscopy: CARS, SRS and TERS. Physical Chemistry Chemical Physics, 2021, 23, 23428-23444.	1.3	26
12	Raman spectroscopy polarization dependence analysis in two-dimensional gallium sulfide. Physical Review B, 2020, 102, .	1.1	16
13	Nanofabrication of plasmon-tunable nanoantennas for tip-enhanced Raman spectroscopy. Journal of Chemical Physics, 2020, 153, 114201.	1.2	14
14	Nanomechanics of few-layer materials: do individual layers slide upon folding?. Beilstein Journal of Nanotechnology, 2020, 11, 1801-1808.	1.5	4
15	Linkage Between Micro- and Nano-Raman Spectroscopy of Defects in Graphene. Physical Review Applied, 2020, 14, .	1.5	15
16	Controlling the Morphology of Nanoflakes Obtained by Liquid-Phase Exfoliation: Implications for the Mass Production of 2D Materials. ACS Applied Nano Materials, 2020, 3, 12095-12105.	2.4	21
17	Optical Properties of Plasmonâ€Tunable Tip Pyramids for Tipâ€Enhanced Raman Spectroscopy. Physica Status Solidi - Rapid Research Letters, 2020, 14, 2000212.	1.2	13
18	A semi-automated general statistical treatment of graphene systems. 2D Materials, 2020, 7, 025045.	2.0	17

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19	Raman spectroscopy analysis of number of layers in mass-produced graphene flakes. Carbon, 2020, 161, 181-189.	5.4	87
20	Raman spectra of multilayer graphene under high temperatures. Journal of Physics Condensed Matter, 2020, 32, 385704.	0.7	6
21	Impact of substrate on tip-enhanced Raman spectroscopy: A comparison between field-distribution simulations and graphene measurements. Physical Review Research, 2020, 2, .	1.3	14
22	Tip-enhanced Raman Spectroscopy of Graphene. , 2019, , .		5
23	Probing Spatial Phonon Correlation Length in Post-Transition Metal Monochalcogenide GaS Using Tip-Enhanced Raman Spectroscopy. Nano Letters, 2019, 19, 7357-7364.	4.5	30
24	Study of the interaction between light and nanoantennas in Tip-Enhanced Raman Spectroscopy. , 2019, , .		1
25	Protocol and reference material for measuring the nanoantenna enhancement factor in Tip-enhanced Raman Spectroscopy. , 2019, , .		3
26	Disorder and Defects in Two-Dimensional Materials Probed by Raman Spectroscopy. Springer Series in Materials Science, 2019, , 99-110.	0.4	1
27	Tip-Enhanced Spectroscopy and Imaging of Carbon Nanomaterials. World Scientific Series on Carbon Nanoscience, 2019, , 175-221.	0.1	4
28	Electro-optical interfacial effects on a graphene/Ï€-conjugated organic semiconductor hybrid system. Beilstein Journal of Nanotechnology, 2018, 9, 963-974.	1.5	8
29	Plasmonâ€Tunable Tip Pyramids: Monopole Nanoantennas for Nearâ€Field Scanning Optical Microscopy. Advanced Optical Materials, 2018, 6, 1800528.	3.6	35
30	Disentangling contributions of point and line defects in the Raman spectra of graphene-related materials. 2D Materials, 2017, 4, 025039.	2.0	146
31	Vibrations in Graphene. , 2017, , 71-89.		7
32	Raman evidence for pressure-induced formation of diamondene. Nature Communications, 2017, 8, 96.	5.8	132
33	Passive near-field imaging with pseudo-thermal sources. Optics Letters, 2017, 42, 1137.	1.7	3
34	Near-field coherence reveals defect densities in atomic monolayers. Optica, 2017, 4, 527.	4.8	4
35	Near-field imaging with pseudo-thermal sources. , 2017, , .		0
36	Characterization of Few-Layer 1Tâ€² MoTe₂ by Polarization-Resolved Second Harmonic Generation and Raman Scattering. ACS Nano, 2016, 10, 9626-9636.	7.3	148

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37	Giant and Tunable Anisotropy of Nanoscale Friction in Graphene. Scientific Reports, 2016, 6, 31569.	1.6	41
38	Vision-based position control applied to probe positioning for Tip Enhanced Raman Spectroscopy. , 2016, , .		1
39	Observing the Angular Distribution of Raman Scattered Fields. ACS Nano, 2016, 10, 1722-1723.	7.3	5
40	Depth dependence of black carbon structure, elemental and microbiological composition in anthropic Amazonian dark soil. Soil and Tillage Research, 2016, 155, 298-307.	2.6	21
41	Study of Carbon Nanostructures for Soil Fertility Improvement. Nanomedicine and Nanotoxicology, 2016, , 85-104.	0.1	1
42	Polarization Dependence of the Second Harmonic Generation and Raman Scattering from Atomically Thin MoTe2. , 2016, , .		0
43	Quantifying Defect Densities in Monolayer Graphene Using Near-field Coherence Measurements. , 2016, , .		0
44	Tip-enhanced Raman mapping of local strain in graphene. Nanotechnology, 2015, 26, 175702.	1.3	62
45	Group theory for structural analysis and lattice vibrations in phosphorene systems. Physical Review B, 2015, 91, .	1.1	82
46	Near-field Raman spectroscopy of nanocarbon materials. Faraday Discussions, 2015, 184, 193-206.	1.6	11
47	Second Harmonic Generation in WSe ₂. 2D Materials, 2015, 2, 045015.	2.0	88
48	Nanoscale mapping of carbon oxidation in pyrogenic black carbon from ancient Amazonian anthrosols. Environmental Sciences: Processes and Impacts, 2015, 17, 775-779.	1.7	21
49	Raman characterization of defects and dopants in graphene. Journal of Physics Condensed Matter, 2015, 27, 083002.	0.7	451
50	Strain Discontinuity, Avalanche, and Memory in Carbon Nanotube Serpentine Systems. Nano Letters, 2015, 15, 5899-5904.	4.5	4
51	Physiological changes of the lichen Parmotrema tinctorum as result of carbon nanotubes exposition. Ecotoxicology and Environmental Safety, 2015, 120, 110-116.	2.9	11
52	Enhanced Mechanical Stability of Gold Nanotips through Carbon Nanocone Encapsulation. Scientific Reports, 2015, 5, 10408.	1.6	21
53	Tuning Localized Surface Plasmon Resonance in Scanning Near-Field Optical Microscopy Probes. ACS Nano, 2015, 9, 6297-6304.	7.3	59
54	Structural analysis of polycrystalline graphene systems by Raman spectroscopy. Carbon, 2015, 95, 646-652.	5.4	184

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55	Spatial Coherence in Near-Field Raman Scattering. Physical Review Letters, 2014, 113, 186101.	2.9	63
56	Group theory analysis of phonons in two-dimensional transition metal dichalcogenides. Physical Review B, 2014, 90, .	1.1	182
57	Theory of Spatial Coherence in Near-Field Raman Scattering. Physical Review X, 2014, 4, .	2.8	31
58	Graphene nanoribbon superlattices fabricated via He ion lithography. Applied Physics Letters, 2014, 104, .	1.5	35
59	Resonance effects on the Raman spectra of graphene superlattices. Physical Review B, 2013, 88, .	1.1	128
60	Raman spectroscopy of twisted bilayer graphene. Solid State Communications, 2013, 175-176, 3-12.	0.9	90
61	The use of Raman spectroscopy to characterize the carbon materials found in Amazonian anthrosoils. Journal of Raman Spectroscopy, 2013, 44, 283-289.	1.2	59
62	The role of interference and polarization effects in the optical visualization of carbon nanotubes. Journal of Applied Physics, 2013, 113, 084314.	1.1	0
63	Raman scattering study of the phonon dispersion in twisted bilayer graphene. Nano Research, 2013, 6, 269-274.	5.8	85
64	Mechanism of near-field Raman enhancement in two-dimensional systems. Physical Review B, 2012, 85, .	1.1	52
65	Electron Microscopy and Spectroscopy Analysis of Carbon Nanostructures in Highly Fertile Amazonian Anthrosoils. Microscopy and Microanalysis, 2012, 18, 1502-1503.	0.2	2
66	In Situ Atomic Force Microscopy Tip-Induced Deformations and Raman Spectroscopy Characterization of Single-Wall Carbon Nanotubes. Nano Letters, 2012, 12, 4110-4116.	4.5	14
67	Perspectives on Raman spectroscopy of graphene-based systems: from the perfect two-dimensional surface to charcoal. Physical Chemistry Chemical Physics, 2012, 14, 15246.	1.3	50
68	Low Temperature Raman Study of the Electron Coherence Length near Graphene Edges. Nano Letters, 2011, 11, 1177-1181.	4.5	70
69	Two-Dimensional Molecular Crystals of Phosphonic Acids on Graphene. ACS Nano, 2011, 5, 394-398.	7.3	43
70	Raman Signature of Graphene Superlattices. Nano Letters, 2011, 11, 4527-4534.	4.5	234
71	Quantifying Defects in Graphene via Raman Spectroscopy at Different Excitation Energies. Nano Letters, 2011, 11, 3190-3196.	4.5	2,807
72	Raman Spectroscopy: Characterization of Edges, Defects, and the Fermi Energy of Graphene and sp 2 Carbons. Nanoscience and Technology, 2011, , 15-55.	1.5	5

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73	Roomâ€Temperature Compressionâ€Induced Diamondization of Fewâ€Layer Graphene. Advanced Materials, 2011, 23, 3014-3017.	11.1	124
74	The Kataura plot for single wall carbon nanotubes on top of crystalline quartz. Physica Status Solidi (B): Basic Research, 2010, 247, 2835-2837.	0.7	18
75	Raman Spectroscopy to Study Disorder and Perturbations in sp[sup 2] Nano-Carbons. , 2010, , .		1
76	Modulating the Electronic Properties along Carbon Nanotubes via Tubeâˆ’Substrate Interaction. Nano Letters, 2010, 10, 5043-5048.	4.5	49
77	Mechanism of Near-Field Raman Enhancement in One-Dimensional Systems. Physical Review Letters, 2009, 103, 186101.	2.9	71
78	Tipâ€enhanced Raman spectroscopy of carbon nanotubes. Journal of Raman Spectroscopy, 2009, 40, 1420-1426.	1.2	122
79	Micro-Raman spectroscopy of refractive index microstructures in silicone-based hydrogel polymers created by high-repetition-rate femtosecond laser micromachining. Journal of the Optical Society of America B: Optical Physics, 2009, 26, 595.	0.9	26
80	Measuring the degree of stacking order in graphite by Raman spectroscopy. Carbon, 2008, 46, 272-275.	5.4	358
81	Geometrical approach for the study of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mi>G</mml:mi><mml:mo>â€²</mml:mo></mml:msup></mml:math>band in the Raman spectrum of monolayer graphene, bilayer graphene, and bulk graphite. Physical Review B, 2008, 77, , .	1.1	168
82	Raman spectroscopic study of silicone-based hydrogel polymers with large index changes induced by femtosecond laser micromachining. , 2008, , .		0
83	Nanowires and Nanoribbons Formed by Methylphosphonic Acid. Journal of Nanoscience and Nanotechnology, 2007, 7, 3071-3080.	0.9	3
84	Measuring the absolute Raman cross section of nanographites as a function of laser energy and crystallite size. Physical Review B, 2007, 76, .	1.1	234
85	Optical studies of carbon nanotubes and nanographites. Physica E: Low-Dimensional Systems and Nanostructures, 2007, 37, 88-92.	1.3	22
86	Studying disorder in graphite-based systems by Raman spectroscopy. Physical Chemistry Chemical Physics, 2007, 9, 1276-1290.	1.3	3,775
87	D-band Raman intensity of graphitic materials as a function of laser energy and crystallite size. Chemical Physics Letters, 2006, 427, 117-121.	1.2	219
88	General equation for the determination of the crystallite size La of nanographite by Raman spectroscopy. Applied Physics Letters, 2006, 88, 163106.	1.5	2,071
89	Trigonal Anisotropy in Graphite and Carbon Nanotubes. Molecular Crystals and Liquid Crystals, 2006, 455, 287-294.	0.4	1
90	Origin of the 2450cmâˆ’1 Raman bands in HOPG, single-wall and double-wall carbon nanotubes. Carbon, 2005, 43, 1049-1054.	5.4	120

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91	Spectroscopy of small diameter single-wall carbon nanotubes. AIP Conference Proceedings, 2005, , .	0.3	0
92	X-ray study of atomic ordering in self-assembled Ge islands grown on Si(001). Physical Review B, 2005, 72, .	1.1	45
93	Anisotropy of the Raman Spectra of Nanographite Ribbons. Physical Review Letters, 2004, 93, 047403.	2.9	195
94	Resonance Raman Spectroscopy to Study and Characterize Defects on Carbon Nanotubes and other Nano-Graphite Systems. Materials Research Society Symposia Proceedings, 2004, 858, 1.	0.1	1
95	Influence of the Atomic Structure on the Raman Spectra of Graphite Edges. Physical Review Letters, 2004, 93, 247401.	2.9	594
96	Optical absorption of graphite and single-wall carbon nanotubes. Applied Physics A: Materials Science and Processing, 2004, 78, 1099-1105.	1.1	47
97	Double resonance Raman spectroscopy of single-wall carbon nanotubes. New Journal of Physics, 2003, 5, 157-157.	1.2	229
98	First and Second-Order Resonance Raman Process in Graphite and Single Wall Carbon Nanotubes. Japanese Journal of Applied Physics, 2002, 41, 4878-4882.	0.8	21
99	Stokes and anti-Stokes double resonance Raman scattering in two-dimensional graphite. Physical Review B, 2002, 66, .	1.1	152
100	Determination of two-dimensional phonon dispersion relation of graphite by Raman spectroscopy. Physical Review B, 2002, 65, .	1.1	99