Bernardo R. A. Neves

List of Publications by Year
in descending order

110 papers	2,716 citations	257450 24 h-index	206112 48 g-index
112 all docs	112 docs citations	112 times ranked	4398 citing authors

#	Article	IF	Citations
1	Influence of the Atomic Structure on the Raman Spectra of Graphite Edges. Physical Review Letters, 2004, 93, 247401.	7.8	594
2	Anisotropy of the Raman Spectra of Nanographite Ribbons. Physical Review Letters, 2004, 93, 047403.	7.8	195
3	Raman evidence for pressure-induced formation of diamondene. Nature Communications, 2017, 8, 96.	12.8	132
4	Roomâ€Temperature Compressionâ€Induced Diamondization of Fewâ€Layer Graphene. Advanced Materials, 2011, 23, 3014-3017.	21.0	124
5	Dynamic Negative Compressibility of Few-Layer Graphene, h-BN, and MoS₂. Nano Letters, 2012, 12, 2313-2317.	9.1	66
6	Deformation Induced Semiconductor-Metal Transition in Single Wall Carbon Nanotubes Probed by Electric Force Microscopy. Physical Review Letters, 2008, 100, 256804.	7.8	62
7	Machine Learning for Perovskites' Reap-Rest-Recovery Cycle. Joule, 2019, 3, 325-337.	24.0	62
8	Spread Coating of OPA on Mica:Â From Multilayers to Self-Assembled Monolayers. Langmuir, 2001, 17, 8193-8198.	3.5	53
9	Physiochemical Properties of Caulobacter crescentus Holdfast: A Localized Bacterial Adhesive. Journal of Physical Chemistry B, 2013, 117, 10492-10503.	2.6	51
10	Humidity-Induced Photoluminescence Hysteresis in Variable Cs/Br Ratio Hybrid Perovskites. Journal of Physical Chemistry Letters, 2018, 9, 3463-3469.	4.6	50
11	Modulating the Electronic Properties along Carbon Nanotubes via Tubeâ^'Substrate Interaction. Nano Letters, 2010, 10, 5043-5048.	9.1	49
12	Single- and double-resonance RamanG-band processes in carbon nanotubes. Physical Review B, 2004, 69, .	3.2	48
13	The use of a Ga⁺focused ion beam to modify graphene for device applications. Nanotechnology, 2012, 23, 255305.	2.6	46
14	Two-Dimensional Molecular Crystals of Phosphonic Acids on Graphene. ACS Nano, 2011, 5, 394-398.	14.6	43
15	Universal Response of Single-Wall Carbon Nanotubes to Radial Compression. Physical Review Letters, 2009, 102, 025501.	7.8	42
16	Experimental and theoretical investigations of monolayer and few-layer talc. 2D Materials, 2015, 2, 015004.	4.4	37
17	Crystal-oriented wrinkles with origami-type junctions in few-layer hexagonal boron nitride. Nano Research, 2015, 8, 1680-1688.	10.4	35
18	Thermal Stability Study of Self-Assembled Monolayers on Mica. Langmuir, 2000, 16, 2409-2412.	3.5	33

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19	Defocusing microscopy. Microscopy Research and Technique, 2004, 65, 159-165.	2.2	33
20	Solid state double layer capacitor based on a polyether polymer electrolyte blend and nanostructured carbon black electrode composites. Journal of Power Sources, 2008, 177, 652-659.	7.8	33
21	Structural Investigations of Octadecylphosphonic Acid Multilayers. Langmuir, 2003, 19, 3345-3349.	3.5	31
22	Langmuirâ€“Blodgett and Langmuirâ€“Schaefer films of poly(5-amino-1-naphthol) conjugated polymer. Applied Surface Science, 2006, 253, 543-548.	6.1	29
23	Coherent-to-incoherent transition in surfactant mediated growth of InAs quantum dots. Applied Physics Letters, 1998, 72, 1712-1714.	3.3	24
24	X-ray method to study temperature-dependent stripe domains in MnAsâ•GaAs(001). Applied Physics Letters, 2005, 86, 053112.	3.3	24
25	Correlation between thermal, optical and morphological properties of heterogeneous blends of poly(3-hexylthiophene) and thermoplastic polyurethane. Journal of Physics Condensed Matter, 2006, 18, 7529-7542.	1.8	24
26	In vitro exposure to fullerene C₆₀ influences redox state and lipid peroxidation in brain and gills from Cyprinus carpio (Cyprinidae). Environmental Toxicology and Chemistry, 2012, 31, 961-967.	4.3	23
27	Compression-Induced Modification of Boron Nitride Layers: A Conductive Two-Dimensional BN Compound. ACS Nano, 2018, 12, 5866-5872.	14.6	23
28	AFM characterization of PbTe quantum dots grown by molecular beam epitaxy under Volmerâ€“Weber mode. Journal of Crystal Growth, 2001, 231, 121-128.	1.5	22
29	Spontaneous doping on high quality talc-graphene-hBN van der Waals heterostructures. 2D Materials, 2017, 4, 031008.	4.4	22
30	Self-healing on OPA self-assembled monolayers. Nanotechnology, 2001, 12, 285-289.	2.6	21
31	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.	5.0	21
32	Effects of Substrate Polarity and Chain Length on Conformational and Thermal Properties of Phosphonic Acid Self-Assembled Bilayers. Langmuir, 2005, 21, 11113-11118.	3.5	20
33	Morphology, crystalline structure and thermal properties of PEO/MEEP blends. European Polymer Journal, 2007, 43, 3283-3291.	5.4	20
34	Corrosion, wear and wearâ€“corrosion behavior of graphite-like a-C:H films deposited on bare and nitrided titanium alloy. Diamond and Related Materials, 2013, 31, 58-64.	3.9	20
35	Robust nanofabrication of monolayer MoS ₂ islands with strong photoluminescence enhancement via local anodic oxidation. 2D Materials, 2018, 5, 025018.	4.4	20
36	Graphene/h-BN heterostructures under pressure: From van der Waals to covalent. Carbon, 2019, 155, 108-113.	10.3	20

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37	Direct observation of the coexistence of coherent and incoherent InAs self-assembled dots by x-ray scattering. Applied Physics Letters, 2001, 79, 4342-4344.	3.3	19
38	Characterization of CdTe quantum dots grown on Si(111) by hot wall epitaxy. Journal of Applied Physics, 2003, 93, 1195-1198.	2.5	19
39	Domain size effects on the thermal properties of PS/PMMA blends. Applied Surface Science, 2004, 238, 64-72.	6.1	19
40	Blends of poly(2,5-dimethoxy aniline) and fluoropolymers as protective coatings. Electrochimica Acta, 2004, 49, 3507-3516.	5.2	18
41	BEHP-PPV and P3HT blends for light emitting devices. Materials Science and Engineering C, 2009, 29, 571-574.	7.3	18
42	Thermal Stability and Ordering Study of Long- and Short-Alkyl Chain Phosphonic Acid Multilayers. Langmuir, 2012, 28, 15124-15133.	3.5	18
43	Nanoscale lateral switchable rectifiers fabricated by local anodic oxidation. Journal of Applied Physics, 2011, 110, 024511.	2.5	17
44	A semi-automated general statistical treatment of graphene systems. 2D Materials, 2020, 7, 025045.	4.4	17
45	Aerosol-Printed MoS₂ Ink as a High Sensitivity Humidity Sensor. ACS Omega, 2022, 7, 9388-9396.	3.5	17
46	Observation of topography inversion in atomic force microscopy of self-assembled monolayers. Nanotechnology, 1999, 10, 399-404.	2.6	16
47	Anomalous response of supported few-layer hexagonal boron nitride to DC electric fields: a confined water effect?. Nanotechnology, 2012, 23, 175703.	2.6	16
48	Ultrastructural changes in bacterial membranes induced by nano-assemblies Î²-cyclodextrin chlorhexidine: SEM, AFM, and TEM evaluation. Pharmaceutical Development and Technology, 2013, 18, 600-608.	2.4	16
49	Landau-level populations and slow energy relaxation of a two-dimensional electron gas probed by tunneling spectroscopy. Physical Review B, 1995, 52, 4666-4669.	3.2	14
50	Magnetic reconfiguration of MnAsâ•GaAs(001) observed by magnetic force microscopy and resonant soft x-ray scattering. Journal of Applied Physics, 2006, 100, 083906.	2.5	14
51	Probing electric characteristics and sorting out metallic from semiconducting carbon nanotubes. Carbon, 2010, 48, 3287-3292.	10.3	14
52	Exfoliation and characterization of a two-dimensional serpentine-based material. Nanotechnology, 2019, 30, 445705.	2.6	14
53	Two-dimensional talc as a van der Waals material for solid lubrication at the nanoscale. Nanotechnology, 2021, 32, 265701.	2.6	14
54	Apparent Softening of Wet Graphene Membranes on a Microfluidic Platform. ACS Nano, 2018, 12, 4312-4320.	14.6	13

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55	Comparative Study of Field Emission-Scanning Electron Microscopy and Atomic Force Microscopy to Assess Self-assembled Monolayer Coverage on Any Type of Substrate. Microscopy and Microanalysis, 1999, 5, 413-419.	0.4	12
56	Thermally induced stacking of octadecylphosphonic acid self-assembled bilayers. Nanotechnology, 2004, 15, 682-686.	2.6	12
57	Fabrication of Gas Nanosensors and Microsensors via Local Anodic Oxidation. Langmuir, 2009, 25, 602-605.	3.5	12
58	Mixed Self-Assembled Layers of Phosphonic Acids. Langmuir, 2010, 26, 648-654.	3.5	12
59	Thionine Self-Assembled Structures on Graphene: Formation, Organization, and Doping. Langmuir, 2018, 34, 6903-6911.	3.5	11
60	Identification of two patterns in magnetic force microscopy of shape memory alloys. Applied Physics Letters, 1999, 74, 2090-2092.	3.3	10
61	Properties of Fe/MgO (1â€‰0â€‰0) nanometric films grown by dc sputtering. Journal Physics D: Applied Physics, 2008, 41, 205005.	2.8	10
62	Controlled Growth and Positioning of Metal Nanoparticles via Scanning Probe Microscopy. Langmuir, 2009, 25, 3356-3358.	3.5	10
63	Photoluminescence and charge transfer in the prototypical 2D/3D semiconductor heterostructure MoS2/GaAs. Applied Physics Letters, 2021, 119, .	3.3	10
64	Electric force microscopy investigation of a MEH-PPV conjugated polymer blend: Robustness or frailty?. Ultramicroscopy, 2008, 108, 302-308.	1.9	8
65	Universal deformation pathways and flexural hardening of nanoscale 2D-material standing folds. Nanotechnology, 2018, 29, 095704.	2.6	8
66	Electro-optical interfacial effects on a graphene/Ï€-conjugated organic semiconductor hybrid system. Beilstein Journal of Nanotechnology, 2018, 9, 963-974.	2.8	8
67	Microscopia de varredura por sonda mecÃ¢nica: uma introduÃ§Ã£o. Ceramica, 1998, 44, 212-219.	0.8	8
68	Controlling the Electrical Behavior of Semiconducting Carbon Nanotubes via Tube Contact. Small, 2012, 8, 220-224.	10.0	7
69	Nanometre-scale identification of grain boundaries in MoS₂through molecular decoration. Nanotechnology, 2015, 26, 475702.	2.6	7
70	Graphene Electromechanical Water Sensor: The Wetristor. Advanced Electronic Materials, 2020, 6, 1901167.	5.1	7
71	Imaging micro-cracks in gold films: a comparative study of scanning tunneling and atomic force microscopies. Ultramicroscopy, 1999, 76, 61-67.	1.9	6
72	Energy dispersive X-ray reflectivity applied to the study of thermal stability of self-assembled organic multilayers: Results on phosphonic acids. Synthetic Metals, 2012, 161, 2521-2525.	3.9	6

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73	Self-assembled organicâ€“inorganic magnetic hybrid adsorbent ferrite based on cyclodextrin nanoparticles. Beilstein Journal of Organic Chemistry, 2012, 8, 1867-1876.	2.2	6
74	Topological vectors as a fingerprinting system for 2D-material flake distributions. Npj 2D Materials and Applications, 2021, 5, .	7.9	6
75	Implementation of Recycling Routes for Scanning Probe Microscopy Tips. Microscopy and Microanalysis, 2002, 8, 509-517.	0.4	5
76	AFM studies of poly (5-amino-1-naphthol) ultrathin films obtained by associating Langmuirâ€“Schaefer and Langmuirâ€“Blodgett methods. Synthetic Metals, 2004, 145, 147-151.	3.9	5
77	Electro-mechanical patterning of self-assembled monolayers on insulating substrates. Nanotechnology, 2005, 16, 2923-2927.	2.6	5
78	Charge Injection on Insulators via Scanning Probe Microscopy Techniques: Towards Data Storage Devices. Journal of Nanoscience and Nanotechnology, 2010, 10, 4204-4212.	0.9	5
79	Center-of-Mass Acceleration in Coupled Nanowaveguides Due to Transverse Optical Beating Force. Journal of Lightwave Technology, 2018, 36, 1608-1614.	4.6	5
80	Study of Controlled Release of PMMAâ€gâ€PEG Copolymer and Derivatives Incorporated with the Indomethacin Drug. Macromolecular Symposia, 2018, 381, 1800145.	0.7	5
81	Evidence for the co-existence of two- and three-dimensional electron gases in the emitter of double barrier devices. Superlattices and Microstructures, 1996, 20, 181-186.	3.1	4
82	Tunneling spectroscopy of hole plasmons in a valence-band quantum well. Physical Review B, 1996, 54, R11106-R11109.	3.2	4
83	Poly(2-methoxy-5-(2â€²-ethyl-hexyloxy)-1,4-phenylenevinylene) conjugated polymer domains in a thermoplastic polyurethane matrix. Journal of Applied Physics, 2007, 101, 033133.	2.5	4
84	Characterization of Metal Oxide-Based Gas Nanosensors and Microsensors Fabricated via Local Anodic Oxidation Using Atomic Force Microscopy. Advances in Materials Science and Engineering, 2013, 2013, 1-13.	1.8	4
85	Chemical Stabilization and Improved Thermal Resilience of Molecular Arrangements: Possible Formation of a Surface Network of Bonds by Multiple Pulse Atomic Layer Deposition. Journal of Physical Chemistry B, 2014, 118, 9792-9799.	2.6	4
86	Temperature resolved aggregate states in dialkoxyphenylene-thiophene oligomer. Chemical Physics Letters, 2014, 614, 67-71.	2.6	4
87	Glass-ionomer-propolis composites for caries inhibition: flavonoids release, physical-chemical, antibacterial and mechanical properties. Biomedical Physics and Engineering Express, 2019, 5, 027006.	1.2	4
88	Nanomechanics of few-layer materials: do individual layers slide upon folding?. Beilstein Journal of Nanotechnology, 2020, 11, 1801-1808.	2.8	4
89	Physical-Chemical Effects of Nanoparticles on Electropolymerized Polyaniline. Biointerface Research in Applied Chemistry, 2021, 12, 5996-6009.	1.0	4
90	AFM Characterization of the Initial Growth Stages of CdTe on Si(111) Substrates. Physica Status Solidi (B): Basic Research, 2002, 232, 173-176.	1.5	3

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91	Nanowires and Nanoribbons Formed by Methylphosphonic Acid. Journal of Nanoscience and Nanotechnology, 2007, 7, 3071-3080.	0.9	3
92	Blends of poly[2-(2â€²,5â€²-bis(2â€²-ethyl-hexyloxy)phenyl)-1,4-phenylenevinylene] and poly(3-hexylthiophene) as base materials for broad band light emission devices. Journal of Applied Physics, 2008, 104, 043106.	2.5	3
93	Selfâ€induced persistent photoconductivity in resonant tunneling devices. Applied Physics Letters, 1996, 69, 1125-1127.	3.3	2
94	X-ray scattering from self-assembled InAs islands. Brazilian Journal of Physics, 2004, 34, 571-576.	1.4	2
95	Fabrication of Selective Metal Contacts on Single-Walled Carbon Nanotubes for Device Applications. Microscopy and Microanalysis, 2005, 11, 106-109.	0.4	2
96	Charge transfer between carbon nanotubes on surfaces. Nanoscale, 2015, 7, 16175-16181.	5.6	2
97	Partially ordered porous structures on layerâ€byâ€layer polyaniline/poly(vinyl sulfate sodium) ultrathin films: Easy fabrication of robust submicroscopic patterning. Journal of Applied Polymer Science, 2020, 137, 48597.	2.6	2
98	Friction Coefficient Mapping of 2D Materials via Friction-Induced Topographic Artifact in Atomic Force Microscopy. Journal of Advances in Nanomaterials, 2016, 1, .	0.4	2
99	Electromechanical Modulations in Transition Metal Dichalcogenide Nanosheets: Implications for Environmental Sensors. ACS Applied Nano Materials, 2021, 4, 11305-11311.	5.0	2
100	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
101	Textural characterization of porous silica films prepared by the solâ€“gel process. , 2004, , 227-231.		1
102	Gypsum: an environment-friendly, inexpensive and robust height calibration standard at nanometer-scale for atomic force microscopy. Nanotechnology, 2020, 31, 115704.	2.6	1
103	Mapping the local dielectric constant of a biological nanostructured system. Beilstein Journal of Nanotechnology, 2021, 12, 139-150.	2.8	1
104	Graphene nanoencapsulation action at an air/lipid interface. Journal of Materials Science, 2022, 57, 6223-6232.	3.7	1
105	Improved bioceramic coatings reinforced by nanostructured talc. Surface and Coatings Technology, 2022, 441, 128589.	4.8	1
106	Fabrication of Si nanostructures by controlled sidewall oxidation. Solid-State Electronics, 1996, 40, 265-269.	1.4	0
107	Influence of Te on the morphology of InAs self-assembled nanocrystals. Journal of Crystal Growth, 1999, 201-202, 1172-1175.	1.5	0
108	Nanolithograhpy Using Tip-Sample Material Transport Process. Microscopy and Microanalysis, 2005, 11, 10-13.	0.4	0

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109	Anodic Oxidation Nanolithography on Semiconductors and Metallic Films: Possibilities and Limitations. Microscopy and Microanalysis, 2005, 11, 26-30.	0.4	0
110	Characterizing inorganic crystals grown on organic self-assembled bilayers with scanning probe and electron microscopies. Microscopy Research and Technique, 2013, 76, 1278-1283.	2.2	0