Ana Laura Elias

List of Publications by Year
in descending order

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83 papers	10,314 citations	81839 39 h-index	71651 76 g-index
83 all docs	83 docs citations	83 times ranked	15392 citing authors

#	Article	IF	Citations
1	Extraordinary Room-Temperature Photoluminescence in Triangular WS₂ Monolayers. Nano Letters, 2013, 13, 3447-3454.	4.5	1,375
2	Identification of individual and few layers of WS2 using Raman Spectroscopy. Scientific Reports, 2013, 3, .	1.6	1,185
3	Graphene and graphite nanoribbons: Morphology, properties, synthesis, defects and applications. Nano Today, 2010, 5, 351-372.	6.2	817
4	Nitrogen-doped graphene: beyond single substitution and enhanced molecular sensing. Scientific Reports, 2012, 2, 586.	1.6	563
5	Photosensor Device Based on Fewâ€Layered WS₂ Films. Advanced Functional Materials, 2013, 23, 5511-5517.	7.8	546
6	Controlled Synthesis and Transfer of Large-Area WS₂ Sheets: From Single Layer to Few Layers. ACS Nano, 2013, 7, 5235-5242.	7.3	534
7	Band Gap Engineering and Layer-by-Layer Mapping of Selenium-Doped Molybdenum Disulfide. Nano Letters, 2014, 14, 442-449.	4.5	463
8	Scalable and Highly Efficient Mesoporous Woodâ€Based Solar Steam Generation Device: Localized Heat, Rapid Water Transport. Advanced Functional Materials, 2018, 28, 1707134.	7.8	366
9	Longitudinal Cutting of Pure and Doped Carbon Nanotubes to Form Graphitic Nanoribbons Using Metal Clusters as Nanoscalpels. Nano Letters, 2010, 10, 366-372.	4.5	323
10	Extraordinary Second Harmonic Generation in Tungsten Disulfide Monolayers. Scientific Reports, 2014, 4, 5530.	1.6	262
11	Highâ€Performance Solar Steam Device with Layered Channels: Artificial Tree with a Reversed Design. Advanced Energy Materials, 2018, 8, 1701616.	10.2	255
12	Optical identification of sulfur vacancies: Bound excitons at the edges of monolayer tungsten disulfide. Science Advances, 2017, 3, e1602813.	4.7	213
13	CVD-grown monolayered MoS ₂ as an effective photosensor operating at low-voltage. 2D Materials, 2014, 1, 011004.	2.0	195
14	Dislocation motion and grain boundary migration in two-dimensional tungsten disulphide. Nature Communications, 2014, 5, 4867.	5.8	192
15	Ultrasensitive gas detection of large-area boron-doped graphene. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 14527-14532.	3.3	177
16	Ultrasensitive molecular sensor using N-doped graphene through enhanced Raman scattering. Science Advances, 2016, 2, e1600322.	4.7	174
17	Super-stretchable Graphene Oxide Macroscopic Fibers with Outstanding Knotability Fabricated by Dry Film Scrolling. ACS Nano, 2014, 8, 5959-5967.	7.3	170
18	Low-temperature Synthesis of Heterostructures of Transition Metal Dichalcogenide Alloys (W_xMo_{1â€“x}S₂) and Graphene with Superior Catalytic Performance for Hydrogen Evolution. ACS Nano, 2017, 11, 5103-5112.	7.3	157

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19	Graphene Shape Control by Multistage Cutting and Transfer. Advanced Materials, 2009, 21, 4487-4491.	11.1	149
20	Tellurium-Assisted Low-Temperature Synthesis of MoS₂ and WS₂ Monolayers. ACS Nano, 2015, 9, 11658-11666.	7.3	123
21	Electrochemical Characterization of Liquid Phase Exfoliated Two-Dimensional Layers of Molybdenum Disulfide. ACS Applied Materials & Interfaces, 2014, 6, 2125-2130.	4.0	121
22	Carbon doping of WS ₂ monolayers: Bandgap reduction and p-type doping transport. Science Advances, 2019, 5, eaav5003.	4.7	119
23	Largeâ€Area Siâ€Doped Graphene: Controllable Synthesis and Enhanced Molecular Sensing. Advanced Materials, 2014, 26, 7593-7599.	11.1	116
24	Three-Dimensional Nitrogen-Doped Multiwall Carbon Nanotube Sponges with Tunable Properties. Nano Letters, 2013, 13, 5514-5520.	4.5	110
25	Two-dimensional transition metal dichalcogenides: Clusters, ribbons, sheets and more. Nano Today, 2015, 10, 559-592.	6.2	107
26	Monolayer Vanadiumâ€Doped Tungsten Disulfide: A Roomâ€Temperature Dilute Magnetic Semiconductor. Advanced Science, 2020, 7, 2001174.	5.6	104
27	Universal In Situ Substitutional Doping of Transition Metal Dichalcogenides by Liquid-Phase Precursor-Assisted Synthesis. ACS Nano, 2020, 14, 4326-4335.	7.3	100
28	Distinct photoluminescence and Raman spectroscopy signatures for identifying highly crystalline WS₂ monolayers produced by different growth methods. Journal of Materials Research, 2016, 31, 931-944.	1.2	95
29	Facile synthesis of MoS2 and MoxW1-xS2 triangular monolayers. APL Materials, 2014, 2, .	2.2	93
30	Ultra-light carbon nanotube sponge as an efficient electromagnetic shielding material in the GHz range. Physica Status Solidi - Rapid Research Letters, 2014, 8, 698-704.	1.2	78
31	All Natural, High Efficient Groundwater Extraction via Solar Steam/Vapor Generation. Advanced Sustainable Systems, 2019, 3, 1800055.	2.7	78
32	MoS ₂ monolayers on nanocavities: enhancement in lightâ€“matter interaction. 2D Materials, 2016, 3, 025017.	2.0	72
33	Viability Studies of Pure Carbonâ€and Nitrogenâ€Doped Nanotubes with Entamoeba histolytica: From Amoebicidal to Biocompatible Structures. Small, 2007, 3, 1723-1729.	5.2	59
34	Photoluminescence Segmentation within Individual Hexagonal Monolayer Tungsten Disulfide Domains Grown by Chemical Vapor Deposition. ACS Applied Materials & Interfaces, 2017, 9, 15005-15014.	4.0	59
35	Ultrafast Intrinsic Photoresponse and Direct Evidence of Sub-gap States in Liquid Phase Exfoliated MoS2Thin Films. Scientific Reports, 2015, 5, 11272.	1.6	57
36	Spontaneous chemical functionalization via coordination of Au single atoms on monolayer MoS ₂. Science Advances, 2020, 6, .	4.7	56

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37	Spontaneous Formation of Atomically Thin Stripes in Transition Metal Dichalcogenide Monolayers. Nano Letters, 2016, 16, 6982-6987.	4.5	48
38	Third order nonlinear optical response exhibited by mono- and few-layers of WS 2. 2D Materials, 2016, 3, 021005.	2.0	46
39	Defect Coupling and Sub-Angstrom Structural Distortions in W_{1â€“x}Mo_xS₂ Monolayers. Nano Letters, 2017, 17, 2802-2808.	4.5	42
40	Excitonic Effects in Tungsten Disulfide Monolayers on Two-Layer Graphene. ACS Nano, 2016, 10, 7840-7846.	7.3	39
41	Catalytic Twistâ€Spun Yarns of Nitrogenâ€Doped Carbon Nanotubes. Advanced Functional Materials, 2012, 22, 1069-1075.	7.8	38
42	Quantification and Healing of Defects in Atomically Thin Molybdenum Disulfide: Beyond the Controlled Creation of Atomic Defects. ACS Nano, 2021, 15, 9658-9669.	7.3	37
43	Ultrashort optical pulse characterization using WS_2 monolayers. Optics Letters, 2014, 39, 383.	1.7	33
44	Clean Transfer of 2D Transition Metal Dichalcogenides Using Cellulose Acetate for Atomic Resolution Characterizations. ACS Applied Nano Materials, 2019, 2, 5320-5328.	2.4	33
45	Nitrogenâ€Doped Graphitic Nanoribbons: Synthesis, Characterization, and Transport. Advanced Functional Materials, 2013, 23, 3755-3762.	7.8	31
46	Raman spectroscopy revealing noble gas adsorption on single-walled carbon nanotube bundles. Carbon, 2018, 127, 312-319.	5.4	26
47	The influence of carbon nanotubes characteristics in their performance as positive electrodes in vanadium redox flow batteries. Sustainable Energy Technologies and Assessments, 2015, 9, 105-110.	1.7	25
48	Electronic, magnetic, optical, and edge-reactivity properties of semiconducting and metallic WS 2 nanoribbons. 2D Materials, 2015, 2, 015002.	2.0	24
49	Nitrogenâ€“Silicon Heterodoping of Carbon Nanotubes. Journal of Physical Chemistry C, 2013, 117, 8481-8490.	1.5	19
50	Accurate virus identification with interpretable Raman signatures by machine learning. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	19
51	3D Nanocomposites of Covalently Interconnected Multiwalled Carbon Nanotubes with SiC with Enhanced Thermal and Electrical Properties. Advanced Functional Materials, 2015, 25, 4985-4993.	7.8	18
52	Low temperature activation of inert hexagonal boron nitride for metal deposition and single atom catalysis. Materials Today, 2021, 51, 108-116.	8.3	16
53	Graphene nanoribbons inducing cube-shaped Ag nanoparticle assemblies. Carbon, 2015, 93, 800-811.	5.4	15
54	Temperature- and power-dependent phonon properties of suspended continuous WS2 monolayer films. Vibrational Spectroscopy, 2016, 86, 270-276.	1.2	15

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55	Facile 1D graphene fiber synthesis from an agricultural by-product: A silicon-mediated graphenization route. Carbon, 2019, 142, 78-88.	5.4	14
56	Lightâ€Emitting Transition Metal Dichalcogenide Monolayers under Cellular Digestion. Advanced Materials, 2018, 30, 1703321.	11.1	13
57	Second harmonic generation in two-dimensional transition metal dichalcogenides with growth and post-synthesis defects. 2D Materials, 2020, 7, 045020.	2.0	10
58	Integration of Nitrogen-Doped Graphene Oxide Dots with Au Nanoparticles for Enhanced Electrocatalytic Hydrogen Evolution. ACS Applied Nano Materials, 2021, 4, 11513-11525.	2.4	10
59	Electric-Field-Assisted Directed Assembly of Transition Metal Dichalcogenide Monolayer Sheets. ACS Nano, 2016, 10, 5006-5014.	7.3	9
60	Sensors: Photosensor Device Based on Fewâ€Layered WS₂ Films (Adv. Funct. Mater. 44/2013). Advanced Functional Materials, 2013, 23, 5510-5510.	7.8	7
61	Probing the interaction of noble gases with pristine and nitrogen-doped graphene through Raman spectroscopy. Physical Review B, 2018, 97, .	1.1	7
62	Leaving defects out of 2D molybdenum disulfide. Nature Electronics, 2022, 5, 19-20.	13.1	7
63	Superconductivity enhancement in phase-engineered molybdenum carbide/disulfide vertical heterostructures. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 19685-19693.	3.3	6
64	Multiple excitations and temperature study of the disorder-induced Raman bands in MoS₂. 2D Materials, 2021, 8, 035042.	2.0	6
65	3d transition metal coordination on monolayer MoS₂: a facile doping method to functionalize surfaces. Nanoscale, 2022, 14, 10801-10815.	2.8	5
66	Pine-tree-like morphologies of nitrogen-doped carbon nanotubes: Electron field emission enhancement. Journal of Materials Research, 2014, 29, 2441-2450.	1.2	4
67	Hybrid materials based on pyrrhotite, troilite, and few-layered graphitic nanostructures: Synthesis, characterization, and cyclic voltammetry studies. Applied Surface Science, 2021, 563, 150327.	3.1	4
68	Atomic-scale Observation of Grains and Grain Boundaries in Monolayers of WS₂. Microscopy and Microanalysis, 2014, 20, 1084-1085.	0.2	3
69	Individual Mo Dopant Atoms in WS2 Monolayers: Atomic Structure and Induced Strain. Microscopy and Microanalysis, 2015, 21, 435-436.	0.2	3
70	Stable and solid pellets of functionalized multi-walled carbon nanotubes produced under high pressure and temperature. Journal of Nanoparticle Research, 2015, 17, 1.	0.8	3
71	Polysulphone composite membranes modified with two types of carbon additives as a potential material for bone tissue regeneration. Bulletin of Materials Science, 2017, 40, 201-212.	0.8	3
72	Three-dimensional Nanotube Networks and a New Horizon of Applications. , 2014, , 457-493.		2

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73	Covalent Networks: 3D Nanocomposites of Covalently Interconnected Multiwalled Carbon Nanotubes with SiC with Enhanced Thermal and Electrical Properties (Adv. Funct. Mater. 31/2015). Advanced Functional Materials, 2015, 25, 4922-4922.	7.8	2
74	Functional Pd/reduced graphene oxide nanocomposites: effect of reduction degree and doping in hydrodechlorination catalytic activity. Journal of Nanoparticle Research, 2019, 21, 1.	0.8	2
75	Selective Synthesis of Bi₂Te₃/WS₂ Heterostructures with Strong Interlayer Coupling. ACS Applied Materials & Interfaces, 2020, , .	4.0	2
76	Carbon Nanotubes: Catalytic Twistâ€Spun Yarns of Nitrogenâ€Doped Carbon Nanotubes (Adv. Funct.) Tj ETQq0 0 0 rgBT /Overlock 10 T	7.8	1
77	Identification of individual and few layers of WS2 using Raman Spectroscopy. , 0, .		1
78	MoS2 Monolayers on Nanocavities: Enhanced Light-Matter Interaction within Atomic Monolayers. , 2016, , .		1
79	Enhancement in Light-Matter Interaction within Atomic MoS2 Monolayers on Nanocavities. , 2016, , .		1
80	Evolution of spectroscopy features in layered MoS_xSe_(2-x) solid solutions. Materials Research Express, 2022, 9, 046301.	0.8	1
81	Nanoribbons: Nitrogenâ€Doped Graphitic Nanoribbons: Synthesis, Characterization, and Transport (Adv.) Tj ETQq1 1 0.784314 rgBT /Ov	7.8	0
82	Graphene: Large-Area Si-Doped Graphene: Controllable Synthesis and Enhanced Molecular Sensing (Adv. Mater. 45/2014). Advanced Materials, 2014, 26, 7676-7676.	11.1	0
83	Reversible fusion-fission fibers. Science, 2021, 372, 573-573.	6.0	0