

# Nestor Perea-Lopez

## List of Publications by Year in descending order

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77  
papers

7,732  
citations

126708

33  
h-index

79541

73  
g-index

78  
all docs

78  
docs citations

78  
times ranked

12320  
citing authors

#	ARTICLE	IF	CITATIONS
1	Extraordinary Room-Temperature Photoluminescence in Triangular WS <sub>2</sub> Monolayers. Nano Letters, 2013, 13, 3447-3454.	4.5	1,375
2	Identification of individual and few layers of WS <sub>2</sub> using Raman Spectroscopy. Scientific Reports, 2013, 3, .	1.6	1,185
3	Photosensor Device Based on Few-layered WS <sub>2</sub> Films. Advanced Functional Materials, 2013, 23, 5511-5517.	7.8	546
4	Controlled Synthesis and Transfer of Large-Area WS <sub>2</sub> Sheets: From Single Layer to Few Layers. ACS Nano, 2013, 7, 5235-5242.	7.3	534
5	Three-dimensionally bonded spongy graphene material with super compressive elasticity and near-zero Poisson's ratio. Nature Communications, 2015, 6, 6141.	5.8	458
6	Extraordinary Second Harmonic Generation in Tungsten Disulfide Monolayers. Scientific Reports, 2014, 4, 5530.	1.6	262
7	Direct Synthesis of van der Waals Solids. ACS Nano, 2014, 8, 3715-3723.	7.3	253
8	Optical identification of sulfur vacancies: Bound excitons at the edges of monolayer tungsten disulfide. Science Advances, 2017, 3, e1602813.	4.7	213
9	CVD-grown monolayered MoS <sub>2</sub> as an effective photosensor operating at low-voltage. 2D Materials, 2014, 1, 011004.	2.0	195
10	Dislocation motion and grain boundary migration in two-dimensional tungsten disulphide. Nature Communications, 2014, 5, 4867.	5.8	192
11	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
12	Ultrasensitive molecular sensor using N-doped graphene through enhanced Raman scattering. Science Advances, 2016, 2, e1600322.	4.7	174
13	Super-stretchable Graphene Oxide Macroscopic Fibers with Outstanding Knotability Fabricated by Dry Film Scrolling. ACS Nano, 2014, 8, 5959-5967.	7.3	170
14	Angstrom-Size Defect Creation and Ionic Transport through Pores in Single-Layer MoS <sub>2</sub> . Nano Letters, 2018, 18, 1651-1659.	4.5	129
15	Tellurium-Assisted Low-Temperature Synthesis of MoS <sub>2</sub> and WS <sub>2</sub> Monolayers. ACS Nano, 2015, 9, 11658-11666.	7.3	123
16	Large-Area Si-Doped Graphene: Controllable Synthesis and Enhanced Molecular Sensing. Advanced Materials, 2014, 26, 7593-7599.	11.1	116
17	Hall and field-effect mobilities in few layered p-WSe <sub>2</sub> field-effect transistors. Scientific Reports, 2015, 5, 8979.	1.6	107
18	Two-dimensional transition metal dichalcogenides: Clusters, ribbons, sheets and more. Nano Today, 2015, 10, 559-592.	6.2	107

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19	Distinct photoluminescence and Raman spectroscopy signatures for identifying highly crystalline WS <sub>2</sub> monolayers produced by different growth methods. Journal of Materials Research, 2016, 31, 931-944.	1.2	95
20	Facile synthesis of MoS <sub>2</sub> and Mo <sub>x</sub> W <sub>1-x</sub> S <sub>2</sub> triangular monolayers. APL Materials, 2014, 2, .	2.2	93
21	Large Area Films of Alternating Graphene/Carbon Nanotube Layers Processed in Water. ACS Nano, 2013, 7, 10788-10798.	7.3	85
22	Formation of Nitrogen-Doped Graphene Nanoribbons via Chemical Unzipping. ACS Nano, 2013, 7, 2192-2204.	7.3	80
23	Tunable and label-free virus enrichment for ultrasensitive virus detection using carbon nanotube arrays. Science Advances, 2016, 2, e1601026.	4.7	73
24	Discovery of Wall-Selective Carbon Nanotube Growth Conditions via Automated Experimentation. ACS Nano, 2014, 8, 10214-10222.	7.3	70
25	Luminescence study in Eu-doped aluminum oxide phosphors. Optical Materials, 2005, 27, 1311-1315.	1.7	62
26	Millimeter-Long Carbon Nanotubes: Outstanding Electron-Emitting Sources. ACS Nano, 2011, 5, 5072-5077.	7.3	50
27	Third order nonlinear optical response exhibited by mono- and few-layers of WS <sub>2</sub> . 2D Materials, 2016, 3, 021005.	2.0	46
28	White light emission from rare earth activated yttrium silicate nanocrystalline powders and thin films. Optical Materials, 2005, 27, 1221-1227.	1.7	43
29	Contribution of the Two-Photon Absorption to the Third Order Nonlinearity of Au Nanoparticles Embedded in TiO <sub>2</sub> Films and in Ethanol Suspension. Journal of Physical Chemistry C, 2010, 114, 10108-10113.	1.5	43
30	Dynamics of cleaning, passivating and doping monolayer MoS <sub>2</sub> by controlled laser irradiation. 2D Materials, 2019, 6, 045031.	2.0	40
31	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
32	Aligned carbon nanotube/zinc oxide nanowire hybrids as high performance electrodes for supercapacitor applications. Journal of Applied Physics, 2017, 121, .	1.1	35
33	Atomically Thin Layers of Graphene and Hexagonal Boron Nitride Made by Solvent Exfoliation of Their Phosphoric Acid Intercalation Compounds. ACS Nano, 2017, 11, 6746-6754.	7.3	35
34	Ultrashort optical pulse characterization using WS <sub>2</sub> monolayers. Optics Letters, 2014, 39, 383.	1.7	33
35	Fabrication and characterization of ultraviolet photosensors from ZnO nanowires prepared using chemical bath deposition method. Journal of Applied Physics, 2016, 119, 084306.	1.1	33
36	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

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37	Carbon-rich shungite as a natural resource for efficient Li-ion battery electrodes. Carbon, 2018, 130, 105-111.	5.4	31
38	Defect creation in $WSe_2$ with a microsecond photoluminescence lifetime by focused ion beam irradiation. Nanoscale, 2020, 12, 2047-2056.	2.8	30
39	Electroluminescence from $Eu^{3+}$ doped $Sr_2CeO_4$ nanocrystalline thin films. Optical Materials, 2006, 29, 43-46.	1.7	28
40	Ablation and optical third-order nonlinearities in Ag nanoparticles. International Journal of Nanomedicine, 2010, 5, 925.	3.3	24
41	Electronic, magnetic, optical, and edge-reactivity properties of semiconducting and metallic $WS_2$ nanoribbons. 2D Materials, 2015, 2, 015002.	2.0	24
42	Synthesis, characterization and magnetic properties of Co@Au core-shell nanoparticles encapsulated by nitrogen-doped multiwall carbon nanotubes. Carbon, 2014, 77, 722-737.	5.4	23
43	Photoluminescence Enhancement of Titanate Nanotubes by Insertion of Rare Earth Ions in Their Interlayer Spaces. Journal of Nanomaterials, 2017, 2017, 1-9.	1.5	19
44	Confined Crack Propagation in $MoS_2$ Monolayers by Creating Atomic Vacancies. ACS Nano, 2021, 15, 1210-1216.	7.3	19
45	Red-emitting $SrIn_2O_4:Eu^{3+}$ phosphor powders for applications in solid state white lamps. Journal Physics D: Applied Physics, 2008, 41, 092005.	1.3	18
46	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
47	Luminescent and crystalline properties of blue-white-emitting nanocrystalline $Sr_2CeO_4$ thin films produced by laser ablation. Optical Materials, 2005, 27, 1212-1216.	1.7	16
48	White light emission from $Y_2SiO_5:Ce, Tb$ films excited by electroluminescence. Optical Materials, 2006, 29, 47-50.	1.7	16
49	Temperature- and power-dependent phonon properties of suspended continuous $WS_2$ monolayer films. Vibrational Spectroscopy, 2016, 86, 270-276.	1.2	15
50	Optoelectronic modulation by multi-wall carbon nanotubes. Nanotechnology, 2013, 24, 045201.	1.3	14
51	Current-heating formation of small holes in thin gold or silver films. Review of Scientific Instruments, 2002, 73, 4399-4401.	0.6	13
52	Temperature- and power-dependent phonon properties of suspended few layers of tungsten diselenide. Vibrational Spectroscopy, 2020, 111, 103169.	1.2	10
53	Second harmonic generation in two-dimensional transition metal dichalcogenides with growth and post-synthesis defects. 2D Materials, 2020, 7, 045020.	2.0	10
54	Interaction of gases with monolayer $WS_2$ : an <i>in situ</i> spectroscopy study. Nanoscale, 2021, 13, 11470-11477.	2.8	10

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55	Study of Luminescence from GaN:Tb <sup>3+</sup> Powders and Thin Films Deposited by MOVPE and PLD Methods. <i>Journal of the Electrochemical Society</i> , 2009, 156, J158.	1.3	9
56	Electric-Field-Assisted Directed Assembly of Transition Metal Dichalcogenide Monolayer Sheets. <i>ACS Nano</i> , 2016, 10, 5006-5014.	7.3	9
57	Photoluminescence Properties of Eu-Doped LaSr <sub>2</sub> AlO <sub>5</sub> . <i>Science of Advanced Materials</i> , 2012, 4, 563-567.	0.1	9
58	Nanocrystalline Sr <sub>2</sub> CeO <sub>4</sub> thin films grown on silicon by laser ablation. <i>Thin Solid Films</i> , 2006, 497, 177-181.	0.8	8
59	Sensors: Photosensor Device Based on Few-Layered WS <sub>2</sub> Films ( <i>Adv. Funct. Mater.</i> 44/2013). <i>Advanced Functional Materials</i> , 2013, 23, 5510-5510.	7.8	7
60	Probing the interaction of noble gases with pristine and nitrogen-doped graphene through Raman spectroscopy. <i>Physical Review B</i> , 2018, 97, .	1.1	7
61	Synthesis of rare-earth activated AlN and GaN powders via a three-step conversion process. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2008, 5, 1889-1891.	0.8	6
62	(Ga,In)P nanowires grown without intentional catalyst. <i>Journal of Crystal Growth</i> , 2015, 431, 72-78.	0.7	5
63	Pine-tree-like morphologies of nitrogen-doped carbon nanotubes: Electron field emission enhancement. <i>Journal of Materials Research</i> , 2014, 29, 2441-2450.	1.2	4
64	Eu <sup>3+</sup> activated GaN thin films grown on sapphire by pulsed laser deposition. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2008, 5, 1756-1758.	0.8	3
65	Near UV-Blue Excitable Green-Emitting Nanocrystalline Oxide. <i>Advances in Materials Science and Engineering</i> , 2011, 2011, 1-7.	1.0	3
66	Atomic-scale Observation of Grains and Grain Boundaries in Monolayers of WS <sub>2</sub> . <i>Microscopy and Microanalysis</i> , 2014, 20, 1084-1085.	0.2	3
67	Hollow "graphene" microtubes using polyacrylonitrile nanofiber template and potential applications of field emission. <i>Carbon</i> , 2020, 167, 439-445.	5.4	3
68	A novel hybrid pulsed laser deposition/metalorganic vapour deposition method to form rare-earth activated GaN. <i>Journal Physics D: Applied Physics</i> , 2008, 41, 122001.	1.3	2
69	Microfluidic device with carbon nanotube channel walls for blood plasma extraction. , 2013, , .		2
70	Three-dimensional Nanotube Networks and a New Horizon of Applications. , 2014, , 457-493.		2
71	Synthesis, Characterization and Magnetic Properties of Defective Nitrogen-Doped Multiwall Carbon Nanotubes Encapsulating Ferromagnetic Nanoparticles. <i>Journal of Nano Research</i> , 2014, 28, 39-49.	0.8	2
72	Covalent Networks: 3D Nanocomposites of Covalently Interconnected Multiwalled Carbon Nanotubes with SiC with Enhanced Thermal and Electrical Properties ( <i>Adv. Funct. Mater.</i> 31/2015). <i>Advanced Functional Materials</i> , 2015, 25, 4922-4922.	7.8	2

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73	A Study of Oxygen Content in GaN, AlN, and GaAlN Powders. Journal of the Electrochemical Society, 2008, 155, J137.	1.3	1
74	Identification of individual and few layers of WS <sub>2</sub> using Raman Spectroscopy. , 0, .		1
75	Evolution of spectroscopy features in layered MoS <sub>x</sub> Se <sub>(2-x)</sub> solid solutions. Materials Research Express, 2022, 9, 046301.	0.8	1
76	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
77	Harmonic generation in 2D layered materials. , 2014, , .		0