

# Emilio Munoz-Sandoval

## List of Publications by Citations

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77  
papers

3,260  
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23  
h-index

56  
g-index

82  
ext. papers

3,616  
ext. citations

6.3  
avg, IF

4.7  
L-index

#	Paper	IF	Citations
77	Graphene and graphite nanoribbons: Morphology, properties, synthesis, defects and applications. <i>Nano Today</i> , <b>2010</b> , 5, 351-372	17.9	695
76	Covalently bonded three-dimensional carbon nanotube solids via boron induced nanojunctions. <i>Scientific Reports</i> , <b>2012</b> , 2, 363	4.9	300
75	Longitudinal cutting of pure and doped carbon nanotubes to form graphitic nanoribbons using metal clusters as nanoscalpels. <i>Nano Letters</i> , <b>2010</b> , 10, 366-72	11.5	284
74	Electronic transport and mechanical properties of phosphorus- and phosphorus-nitrogen-doped carbon nanotubes. <i>ACS Nano</i> , <b>2009</b> , 3, 1913-21	16.7	191
73	Pure and doped boron nitride nanotubes. <i>Materials Today</i> , <b>2007</b> , 10, 30-38	21.8	171
72	Heterodoped nanotubes: theory, synthesis, and characterization of phosphorus-nitrogen doped multiwalled carbon nanotubes. <i>ACS Nano</i> , <b>2008</b> , 2, 441-8	16.7	165
71	Fabrication of vapor and gas sensors using films of aligned CN <sub>x</sub> nanotubes. <i>Chemical Physics Letters</i> , <b>2004</b> , 386, 137-143	2.5	159
70	Production and characterization of single-crystal FeCo nanowires inside carbon nanotubes. <i>Nano Letters</i> , <b>2005</b> , 5, 467-72	11.5	150
69	Synthesis, electronic structure, and Raman scattering of phosphorus-doped single-wall carbon nanotubes. <i>Nano Letters</i> , <b>2009</b> , 9, 2267-72	11.5	121
68	Magnetism in Fe-based and carbon nanostructures: Theory and applications. <i>Solid State Sciences</i> , <b>2006</b> , 8, 303-320	3.4	88
67	Phosphorus and phosphorus-nitrogen doped carbon nanotubes for ultrasensitive and selective molecular detection. <i>Nanoscale</i> , <b>2011</b> , 3, 1008-13	7.7	74
66	Controlling high coercivities of ferromagnetic nanowires encapsulated in carbon nanotubes. <i>Journal of Materials Chemistry</i> , <b>2010</b> , 20, 5906		54
65	Adsorption of cadmium and lead onto oxidized nitrogen-doped multiwall carbon nanotubes in aqueous solution: equilibrium and kinetics. <i>Journal of Nanoparticle Research</i> , <b>2010</b> , 12, 467-480	2.3	51
64	Clean nanotube unzipping by abrupt thermal expansion of molecular nitrogen: graphene nanoribbons with atomically smooth edges. <i>ACS Nano</i> , <b>2012</b> , 6, 2261-72	16.7	48
63	Millimeter-long carbon nanotubes: outstanding electron-emitting sources. <i>ACS Nano</i> , <b>2011</b> , 5, 5072-7	16.7	44
62	Carbon sponge-type nanostructures based on coaxial nitrogen-doped multiwalled carbon nanotubes grown by CVD using benzylamine as precursor. <i>Carbon</i> , <b>2017</b> , 115, 409-421	10.4	40
61	Synthesis and state of art characterization of BN bamboo-like nanotubes: Evidence of a root growth mechanism catalyzed by Fe. <i>Chemical Physics Letters</i> , <b>2005</b> , 416, 342-348	2.5	38

60	Acid modified bamboo-type carbon nanotubes and cup-stacked-type carbon nanofibres as adsorbent materials: cadmium removal from aqueous solution. <i>Journal of Chemical Technology and Biotechnology</i> , <b>2009</b> , 84, 519-524	3.5	35
59	Surface Plasmon Resonance Effects in the Magneto-Optical Activity of Ag@Co@Ag Trilayers. <i>IEEE Transactions on Magnetics</i> , <b>2008</b> , 44, 3303-3306	2	31
58	Synthesis of ZnMnO Nanoparticles by a Microwave-Assisted Colloidal Method and their Evaluation as a Gas Sensor of Propane and Carbon Monoxide. <i>Sensors</i> , <b>2018</b> , 18,	3.8	28
57	Nitrogen-Doped Graphitic Nanoribbons: Synthesis, Characterization, and Transport. <i>Advanced Functional Materials</i> , <b>2013</b> , 23, 3755-3762	15.6	28
56	Creation of helical vortices during magnetization of aligned carbon nanotubes filled with Fe: theory and experiment. <i>Physical Review Letters</i> , <b>2005</b> , 94, 216102	7.4	27
55	Magnetotransport in single-crystal half-Heusler compounds. <i>Physical Review B</i> , <b>2004</b> , 69,	3.3	25
54	Synthesis, characterization and magnetic properties of Co@Au core-shell nanoparticles encapsulated by nitrogen-doped multiwall carbon nanotubes. <i>Carbon</i> , <b>2014</b> , 77, 722-737	10.4	21
53	Two Sprayer CVD Synthesis of Nitrogen-doped Carbon Sponge-type Nanomaterials. <i>Scientific Reports</i> , <b>2018</b> , 8, 2983	4.9	20
52	Controlling the Optical, Electrical and Chemical Properties of Carbon Inverse Opal by Nitrogen Doping. <i>Advanced Functional Materials</i> , <b>2014</b> , 24, 2612-2619	15.6	20
51	Magnetic response in finite carbon graphene sheets and nanotubes. <i>Optical Materials</i> , <b>2006</b> , 29, 110-115	3.3	19
50	Synthesis, Characterization, and Sensor Applications of Spinel ZnCoO Nanoparticles. <i>Sensors</i> , <b>2016</b> , 16,	3.8	18
49	Cytotoxicity induced by carbon nanotubes in experimental malignant glioma. <i>International Journal of Nanomedicine</i> , <b>2017</b> , 12, 6005-6026	7.3	16
48	Production and detailed characterization of bean husk-based carbon: efficient cadmium (II) removal from aqueous solutions. <i>Water Research</i> , <b>2008</b> , 42, 3473-9	12.5	15
47	Magnetic properties of a new intermetallic compound Ho <sub>2</sub> Ni <sub>2</sub> Pb. <i>Europhysics Letters</i> , <b>2001</b> , 56, 302-308	8.6	15
46	First-principles study of transition metal adsorbed on porphyrin-like motifs in pyrrolic nitrogen-doped carbon nanostructures. <i>Carbon</i> , <b>2017</b> , 116, 381-390	10.4	14
45	Efficient carbon nanotube sponges production boosted by acetone in CVD-Synthesis. <i>Carbon</i> , <b>2018</b> , 135, 145-156	10.4	13
44	Trends in nanoscience, nanotechnology, and carbon nanotubes: a bibliometric approach. <i>Journal of Nanoparticle Research</i> , <b>2014</b> , 16, 1	2.3	13
43	Magnetization patterns simulations of Fe, Ni, Co, and permalloy individual nanomagnets. <i>Journal of Magnetism and Magnetic Materials</i> , <b>2005</b> , 294, e7-e12	2.8	13

42	Micromagnetic simulations of 200-nm-diameter cobalt nanorings using a Reuleaux triangular geometry. <i>Journal of Magnetism and Magnetic Materials</i> , <b>2006</b> , 305, 133-140	2.8	12
41	Magnetic properties of individual carbon clusters, clusters inside fullerenes and graphitic nanoribbons. <i>Journal of Materials Chemistry</i> , <b>2008</b> , 18, 1535		11
40	Competing magnetic structures and magnetic transitions in Er <sub>2</sub> Ni <sub>2</sub> Pb: Powder neutron diffraction measurements. <i>Physical Review B</i> , <b>2008</b> , 78,	3.3	11
39	Architectures from aligned nanotubes using controlled micropatterning of silicon substrates and electrochemical methods. <i>Small</i> , <b>2007</b> , 3, 1157-63	11	10
38	Micromagnetic simulations of hysteresis loops in ferromagnetic Reuleaux triangles. <i>Journal of Applied Physics</i> , <b>2005</b> , 97, 10E318	2.5	10
37	Understanding the electrochemistry of armchair graphene nanoribbons containing nitrogen and oxygen functional groups: DFT calculations. <i>Physical Chemistry Chemical Physics</i> , <b>2020</b> , 22, 4533-4543	3.6	10
36	Synthesis, morphology, magnetic and electrochemical studies of nitrogen-doped multiwall carbon nanotubes fabricated using banded iron-formation as catalyst. <i>Journal of Alloys and Compounds</i> , <b>2020</b> , 835, 155200	5.7	9
35	Efficient vapor sensors using foils of dispersed nitrogen-doped and pure carbon multiwalled nanotubes. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2010</b> , 10, 3965-72	1.3	9
34	Micromagnetic simulation of iron nanorings. <i>Journal of Magnetism and Magnetic Materials</i> , <b>2005</b> , 294, e1-e5	2.8	9
33	Spin-dependent band-gap driven by nitrogen and oxygen functional groups in zigzag graphene nanoribbons. <i>Applied Surface Science</i> , <b>2020</b> , 521, 146435	6.7	8
32	Vibration sample magnetometry, a good tool for the study of nanomagnetic inclusions. <i>Superlattices and Microstructures</i> , <b>2008</b> , 43, 482-486	2.8	8
31	Synthesis, characterization and cyclic voltammetry studies of helical carbon nanostructures produced by thermal decomposition of ethanol on Cu-foils. <i>Carbon</i> , <b>2019</b> , 155, 469-482	10.4	7
30	Magnetic and Electrical Properties of Nitrogen-Doped Multiwall Carbon Nanotubes Fabricated by a Modified Chemical Vapor Deposition Method. <i>Journal of Nanomaterials</i> , <b>2015</b> , 2015, 1-14	3.2	7
29	Unusual magnetic and transport properties in naturally layered intermetallic compounds R <sub>2</sub> Ni <sub>2</sub> Pb (R=Gd, Tb and Y). <i>Journal of Alloys and Compounds</i> , <b>2004</b> , 369, 260-264	5.7	7
28	Oxygenated Surface of Carbon Nanotube Sponges: Electroactivity and Magnetic Studies. <i>ACS Omega</i> , <b>2019</b> , 4, 18011-18022	3.9	6
27	Metallurgy and characterization of R <sub>2</sub> Ni <sub>2</sub> Pb intermetallic compounds. <i>Journal of Alloys and Compounds</i> , <b>2003</b> , 359, 5-9	5.7	6
26	Temperature Dependence of Sensors Based on Silver-Decorated Nitrogen-Doped Multiwalled Carbon Nanotubes. <i>Journal of Sensors</i> , <b>2016</b> , 2016, 1-10	2	6
25	Holey nitrogen-doped multiwalled carbon nanotubes from extended air oxidation at low-temperature. <i>Applied Surface Science</i> , <b>2020</b> , 524, 146546	6.7	5

24	Wrinkled Nitrogen-doped Carbon Belts. <i>Scientific Reports</i> , <b>2018</b> , 8, 3546	4.9	5
23	Magnetic properties of encapsulated nanoparticles in nitrogen-doped multiwalled carbon nanotubes embedded in SiO <sub>x</sub> matrices. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2010</b> , 10, 5576-82	1.3	5
22	Magnetic and transport properties of Fe nanowires encapsulated in carbon nanotubes. <i>Journal of Magnetism and Magnetic Materials</i> , <b>2004</b> , 272-276, E1255-E1257	2.8	5
21	Chloride functionalized carbon nanotube sponge: High charge capacity and high magnetic saturation. <i>Carbon</i> , <b>2020</b> , 164, 324-336	10.4	5
20	Graphene oxide membranes for lactose-free milk. <i>Carbon</i> , <b>2021</b> , 181, 118-129	10.4	5
19	Removal and surface photocatalytic degradation of methylene blue on carbon nanostructures. <i>Diamond and Related Materials</i> , <b>2021</b> , 119, 108544	3.5	5
18	Biocompatibility of nitrogen-doped multiwalled carbon nanotubes with murine fibroblasts and human hematopoietic stem cells. <i>Journal of Nanoparticle Research</i> , <b>2019</b> , 21, 1	2.3	4
17	Pine-tree-like morphologies of nitrogen-doped carbon nanotubes: Electron field emission enhancement. <i>Journal of Materials Research</i> , <b>2014</b> , 29, 2441-2450	2.5	4
16	Nitrogen-phosphorus doped graphitic nano onion-like structures: experimental and theoretical studies.. <i>RSC Advances</i> , <b>2021</b> , 11, 2793-2803	3.7	4
15	Effect of pyrrolic-N defects on the capacitance and magnetization of nitrogen-doped multiwalled carbon nanotubes. <i>Carbon</i> , <b>2021</b> , 183, 743-762	10.4	4
14	Pyrrolic nitrogen-doped multiwall carbon nanotubes using ball-milled slag-SiC mixtures as a catalyst by aerosol assisted chemical vapor deposition. <i>Materials Research Express</i> , <b>2020</b> ,	1.7	3
13	Potential Use of Nitrogen-Doped Carbon Nanotube Sponges as Payload Carriers Against Malignant Glioma. <i>Nanomaterials</i> , <b>2021</b> , 11,	5.4	3
12	Tuning the electronic and magnetic properties of graphene nanoribbons through phosphorus doping and functionalization. <i>Materials Chemistry and Physics</i> , <b>2021</b> , 265, 124450	4.4	3
11	Furan and Pyran Functional Groups Driven the Surface of Nitrogen-Doped Nanofiber Sponges. <i>ChemNanoMat</i> , <b>2020</b> , 6, 672-684	3.5	2
10	Synthesis, Characterization and Magnetic Properties of Defective Nitrogen-Doped Multiwall Carbon Nanotubes Encapsulating Ferromagnetic Nanoparticles. <i>Journal of Nano Research</i> , <b>2014</b> , 28, 39-49	1	2
9	High performance isopropanol sensor based on spinel ZnMn <sub>2</sub> O <sub>4</sub> nanoparticles. <i>Materials Today Communications</i> , <b>2021</b> , 26, 102138	2.5	2
8	Boracites: A Structural Family Presenting Ferroic Phase Transitions. <i>Ferroelectrics</i> , <b>2002</b> , 267, 229-236	0.6	1
7	Growth of nitrogen-doped carbon nanotubes using Ni/La <sub>2</sub> Zr <sub>2</sub> O <sub>7</sub> as catalyst: Electrochemical and magnetic studies. <i>Carbon</i> , <b>2021</b> , 171, 907-920	10.4	1

6	Tailoring the structure of MoS using ball-milled MoO powders: hexagonal, triangular, and fullerene-like shapes. <i>Nanotechnology</i> , <b>2021</b> , 32, 155605	3.4	1
5	Carbon Nanotubes as Antimicrobial Agents: Trends and Perspectives <b>2021</b> , 1-19		0
4	Nitrogen and Sulfur Incorporation into Graphene Oxide by Mechanical Process. <i>Advanced Engineering Materials</i> , <b>2021</b> , 23, 2001444	3.5	0
3	Surfactant suspended multi-wall carbon nanotube stability in artificial water samples of different hydrogeochemical families. <i>Applied Geochemistry</i> , <b>2022</b> , 139, 105252	3.5	0
2	Tetrahedral magnetic cluster embedded in metallic matrix: electron-correlation effects. <i>IEEE Transactions on Magnetics</i> , <b>2005</b> , 41, 3428-3430	2	
1	Highly Concentrated Nitrogen-Doped Carbon Nanotubes in Alginate-Chitosan 3D Hydrogels Enable in Vitro Breast Cancer Spheroid Formation. <i>Advanced NanoBiomed Research</i> , <b>2022</b> , 2, 2100104		0