

# Eduardo Cruz-Silva

## List of Publications by Citations

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45  
papers

2,261  
citations

25  
h-index

47  
g-index

50  
ext. papers

2,460  
ext. citations

8.9  
avg, IF

4.43  
L-index

#	Paper	IF	Citations
45	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
44	Nitrogen-mediated carbon nanotube growth: diameter reduction, metallicity, bundle dispersability, and bamboo-like structure formation. <i>ACS Nano</i> , <b>2007</b> , 1, 369-75	16.7	185
43	Pure and doped boron nitride nanotubes. <i>Materials Today</i> , <b>2007</b> , 10, 30-38	21.8	171
42	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
41	Tungsten Ditelluride: a layered semimetal. <i>Scientific Reports</i> , <b>2015</b> , 5, 10013	4.9	145
40	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
39	Building complex hybrid carbon architectures by covalent interconnections: graphene-nanotube hybrids and more. <i>ACS Nano</i> , <b>2014</b> , 8, 4061-9	16.7	119
38	Structural, magnetic, and transport properties of substitutionally doped graphene nanoribbons from first principles. <i>Physical Review B</i> , <b>2011</b> , 83,	3.3	117
37	Two-dimensional transition metal dichalcogenides: Clusters, ribbons, sheets and more. <i>Nano Today</i> , <b>2015</b> , 10, 559-592	17.9	84
36	Experimental and theoretical studies suggesting the possibility of metallic boron nitride edges in porous nanourchins. <i>Nano Letters</i> , <b>2008</b> , 8, 1026-32	11.5	79
35	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
34	Resonance Raman study of linear carbon chains formed by the heat treatment of double-wall carbon nanotubes. <i>Physical Review B</i> , <b>2006</b> , 73,	3.3	73
33	An atomistic branching mechanism for carbon nanotubes: sulfur as the triggering agent. <i>Angewandte Chemie - International Edition</i> , <b>2008</b> , 47, 2948-53	16.4	69
32	Enhanced thermoelectric figure of merit in assembled graphene nanoribbons. <i>Physical Review B</i> , <b>2012</b> , 86,	3.3	68
31	Emergence of atypical properties in assembled graphene nanoribbons. <i>Physical Review Letters</i> , <b>2011</b> , 107, 135501	7.4	65
30	A theoretical and experimental study on manipulating the structure and properties of carbon nanotubes using substitutional dopants. <i>International Journal of Quantum Chemistry</i> , <b>2009</b> , 109, 97-118	2.1	64
29	Quantum transport in graphene nanonetworks. <i>Nano Letters</i> , <b>2011</b> , 11, 3058-64	11.5	55

28	Spin polarized conductance in hybrid graphene nanoribbons using 5-7 defects. <i>ACS Nano</i> , <b>2009</b> , 3, 3606-17.7	17.7	52
27	Controlling edge morphology in graphene layers using electron irradiation: from sharp atomic edges to coalesced layers forming loops. <i>Physical Review Letters</i> , <b>2010</b> , 105, 045501	7.4	50
26	The Role of Sulfur in the Synthesis of Novel Carbon Morphologies: From Covalent Y-Junctions to Sea-Urchin-Like Structures. <i>Advanced Functional Materials</i> , <b>2009</b> , 19, 1193-1199	15.6	44
25	Radiation effects on two-dimensional materials. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2016</b> , 213, 3065-3077	1.6	36
24	Spectroscopic characterization of N-doped single-walled carbon nanotube strands: an X-ray photoelectron spectroscopy and Raman study. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2010</b> , 10, 3959-64	1.3	30
23	Nitrogen-Doped Graphitic Nanoribbons: Synthesis, Characterization, and Transport. <i>Advanced Functional Materials</i> , <b>2013</b> , 23, 3755-3762	15.6	28
22	Electronic transport properties of assembled carbon nanoribbons. <i>ACS Nano</i> , <b>2012</b> , 6, 6483-91	16.7	25
21	Edge-edge interactions in stacked graphene nanoplatelets. <i>ACS Nano</i> , <b>2013</b> , 7, 2834-41	16.7	25
20	Structural and electronic properties of graphitic nanowiggles. <i>Physical Review B</i> , <b>2012</b> , 85,	3.3	21
19	3D Nanocomposites of Covalently Interconnected Multiwalled Carbon Nanotubes with SiC with Enhanced Thermal and Electrical Properties. <i>Advanced Functional Materials</i> , <b>2015</b> , 25, 4985-4993	15.6	14
18	Electron scattering at interfaces in nano-scale vertical interconnects: A combined experimental and ab initio study. <i>Applied Physics Letters</i> , <b>2018</b> , 112, 163107	3.4	13
17	Magnetic properties of individual carbon clusters, clusters inside fullerenes and graphitic nanoribbons. <i>Journal of Materials Chemistry</i> , <b>2008</b> , 18, 1535		11
16	Architectures from aligned nanotubes using controlled micropatterning of silicon substrates and electrochemical methods. <i>Small</i> , <b>2007</b> , 3, 1157-63	11	10
15	Electronic transport properties in graphene oxide frameworks. <i>Physical Review B</i> , <b>2014</b> , 89,	3.3	9
14	Electronic structure and transport properties of N <sub>2</sub> (AA)-doped armchair and zigzag graphene nanoribbons. <i>Nanotechnology</i> , <b>2013</b> , 24, 235701	3.4	9
13	Bottom-up methodology for predictive simulations of self-heating in aggressively scaled process technologies <b>2018</b> ,		8
12	The importance of defects for carbon nanoribbon based electronics. <i>Physica Status Solidi - Rapid Research Letters</i> , <b>2009</b> , 3, 181-183	2.5	8
11	Transport properties through hexagonal boron nitride clusters embedded in graphene nanoribbons. <i>Nanotechnology</i> , <b>2016</b> , 27, 185203	3.4	5

10	BNC nanoshells: a novel structure for atomic storage. <i>Nanotechnology</i> , <b>2017</b> , 28, 465201	3.4	3
9	Advancing Understanding and Design of Functional Materials Through Theoretical and Computational Chemical Physics <b>2012</b> , 209-278		3
8	Electronic and transport properties of graphene nanoribbon barbell-shaped heterojunctions. <i>Physica Status Solidi (B): Basic Research</i> , <b>2013</b> , 250, 2417-2423	1.3	3
7	Thermal Characterization and TCAD Modeling of a Power Amplifier in 45RFSOI for 5G mmWave Applications <b>2020</b> ,		2
6	Electronic Transport in Graphitic Carbon Nanoribbons <b>2013</b> , 319-346		2
5	Covalent Networks: 3D Nanocomposites of Covalently Interconnected Multiwalled Carbon Nanotubes with SiC with Enhanced Thermal and Electrical Properties (Adv. Funct. Mater. 31/2015). <i>Advanced Functional Materials</i> , <b>2015</b> , 25, 4922-4922	15.6	2
4	Novel N/PFET Vt control by TiN plasma nitridation for aggressive gate scaling <b>2016</b> ,		1
3	Spin dependent transport in hybrid one dimensional BNC systems. <i>Semiconductor Science and Technology</i> , <b>2019</b> , 34, 015004	1.8	1
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	Ab Initio Electrical, Thermal Conductance, and Lorenz Numbers for Advanced CMOS Interfaces. <i>IEEE Transactions on Electron Devices</i> , <b>2022</b> , 1-6	2.9	