Eduardo Cruz-Silva

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

25 47 g-index

50 2,460 8.9 4.43 L-index
ext. papers ext. citations

#	Paper	IF	Citations
45	Ab Initio Electrical, Thermal Conductance, and Lorenz Numbers for Advanced CMOS Interfaces. <i>IEEE Transactions on Electron Devices</i> , 2022 , 1-6	2.9	
44	Thermal Characterization and TCAD Modeling of a Power Amplifier in 45RFSOI for 5G mmWave Applications 2020 ,		2
43	Spin dependent transport in hybrid one dimensional BNC systems. <i>Semiconductor Science and Technology</i> , 2019 , 34, 015004	1.8	1
42	Bottom-up methodology for predictive simulations of self-heating in aggressively scaled process technologies 2018 ,		8
41	Electron scattering at interfaces in nano-scale vertical interconnects: A combined experimental and ab initio study. <i>Applied Physics Letters</i> , 2018 , 112, 163107	3.4	13
40	BNC nanoshells: a novel structure for atomic storage. <i>Nanotechnology</i> , 2017 , 28, 465201	3.4	3
39	Novel N/PFET Vt control by TiN plasma nitridation for aggressive gate scaling 2016,		1
38	Transport properties through hexagonal boron nitride clusters embedded in graphene nanoribbons. <i>Nanotechnology</i> , 2016 , 27, 185203	3.4	5
37	Radiation effects on two-dimensional materials. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2016 , 213, 3065-3077	1.6	36
36	Tungsten Ditelluride: a layered semimetal. Scientific Reports, 2015, 5, 10013	4.9	145
35	Two-dimensional transition metal dichalcogenides: Clusters, ribbons, sheets and more. <i>Nano Today</i> , 2015 , 10, 559-592	17.9	84
34	3D Nanocomposites of Covalently Interconnected Multiwalled Carbon Nanotubes with SiC with Enhanced Thermal and Electrical Properties. <i>Advanced Functional Materials</i> , 2015 , 25, 4985-4993	15.6	14
33	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	15.6	2
32	Electronic transport properties in graphene oxide frameworks. <i>Physical Review B</i> , 2014 , 89,	3.3	9
31	Building complex hybrid carbon architectures by covalent interconnections: graphene-nanotube hybrids and more. <i>ACS Nano</i> , 2014 , 8, 4061-9	16.7	119
30	Nitrogen-Doped Graphitic Nanoribbons: Synthesis, Characterization, and Transport. <i>Advanced Functional Materials</i> , 2013 , 23, 3755-3762	15.6	28
29	Electronic Transport in Graphitic Carbon Nanoribbons 2013 , 319-346		2

(2009-2013)

28	Edge-edge interactions in stacked graphene nanoplatelets. ACS Nano, 2013, 7, 2834-41	16.7	25
27	Electronic structure and transport properties of N2(AA)-doped armchair and zigzag graphene nanoribbons. <i>Nanotechnology</i> , 2013 , 24, 235701	3.4	9
26	Electronic and transport properties of graphene nanoribbon barbell-shaped heterojunctions. <i>Physica Status Solidi (B): Basic Research</i> , 2013 , 250, 2417-2423	1.3	3
25	Electronic transport properties of assembled carbon nanoribbons. ACS Nano, 2012, 6, 6483-91	16.7	25
24	Structural and electronic properties of graphitic nanowiggles. <i>Physical Review B</i> , 2012 , 85,	3.3	21
23	Advancing Understanding and Design of Functional Materials Through Theoretical and Computational Chemical Physics 2012 , 209-278		3
22	Enhanced thermoelectric figure of merit in assembled graphene nanoribbons. <i>Physical Review B</i> , 2012 , 86,	3.3	68
21	Structural, magnetic, and transport properties of substitutionally doped graphene nanoribbons from first principles. <i>Physical Review B</i> , 2011 , 83,	3.3	117
20	Emergence of atypical properties in assembled graphene nanoribbons. <i>Physical Review Letters</i> , 2011 , 107, 135501	7.4	65
19	Quantum transport in graphene nanonetworks. <i>Nano Letters</i> , 2011 , 11, 3058-64	11.5	55
19	Phosphorus and phosphorus-nitrogen doped carbon nanotubes for ultrasensitive and selective	11.5 7.7	5574
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18	Phosphorus and phosphorus-nitrogen doped carbon nanotubes for ultrasensitive and selective molecular detection. <i>Nanoscale</i> , 2011 , 3, 1008-13 Controlling edge morphology in graphene layers using electron irradiation: from sharp atomic edges to coalesced layers forming loops. <i>Physical Review Letters</i> , 2010 , 105, 045501 Spectroscopic characterization of N-doped single-walled carbon nanotube strands: an X-ray	7.7	74
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18 17 16 15	Phosphorus and phosphorus-nitrogen doped carbon nanotubes for ultrasensitive and selective molecular detection. <i>Nanoscale</i> , 2011 , 3, 1008-13 Controlling edge morphology in graphene layers using electron irradiation: from sharp atomic edges to coalesced layers forming loops. <i>Physical Review Letters</i> , 2010 , 105, 045501 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> , 2010 , 10, 3959-64 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> , 2009 , 19, 1193-1199 A theoretical and experimental study on manipulating the structure and properties of carbon nanotubes using substitutional dopants. <i>International Journal of Quantum Chemistry</i> , 2009 , 109, 97-118	7.7 7.4 1.3 15.6 2.1	74 50 30 44 64

10	Electronic transport and mechanical properties of phosphorus- and phosphorus-nitrogen-doped carbon nanotubes. <i>ACS Nano</i> , 2009 , 3, 1913-21	16.7	191
9	Experimental and theoretical studies suggesting the possibility of metallic boron nitride edges in porous nanourchins. <i>Nano Letters</i> , 2008 , 8, 1026-32	11.5	79
8	Magnetic properties of individual carbon clusters, clusters inside fullerenes and graphitic nanoribbons. <i>Journal of Materials Chemistry</i> , 2008 , 18, 1535		11
7	An atomistic branching mechanism for carbon nanotubes: sulfur as the triggering agent. <i>Angewandte Chemie - International Edition</i> , 2008 , 47, 2948-53	16.4	69
6	Heterodoped nanotubes: theory, synthesis, and characterization of phosphorus-nitrogen doped multiwalled carbon nanotubes. <i>ACS Nano</i> , 2008 , 2, 441-8	16.7	165
5	Pure and doped boron nitride nanotubes. <i>Materials Today</i> , 2007 , 10, 30-38	21.8	171
4	Architectures from aligned nanotubes using controlled micropatterning of silicon substrates and electrochemical methods. <i>Small</i> , 2007 , 3, 1157-63	11	10
3	Nitrogen-mediated carbon nanotube growth: diameter reduction, metallicity, bundle dispersability, and bamboo-like structure formation. <i>ACS Nano</i> , 2007 , 1, 369-75	16.7	185
2	Resonance Raman study of linear carbon chains formed by the heat treatment of double-wall carbon nanotubes. <i>Physical Review B</i> , 2006 , 73,	3.3	73
1	Tetrahedral magnetic cluster embedded in metallic matrix: electron-correlation effects. <i>IEEE Transactions on Magnetics</i> , 2005 , 41, 3428-3430	2	