

Rodolfo Cruz Silva

List of Publications by Year in Descending Order

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Version: 2024-04-27

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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.

99
papers

4,801
citations

32
h-index

68
g-index

104
ext. papers

5,362
ext. citations

8.4
avg. IF

5.38
L-index

#	Paper	IF	Citations
99	Antifouling performance of spiral wound type module made of carbon nanotubes/polyamide composite RO membrane for seawater desalination. <i>Desalination</i> , 2022 , 523, 115445	10.3	4
98	Preparation of polysulfone support for higher-performance reverse osmosis membranes. <i>Journal of Environmental Chemical Engineering</i> , 2022 , 107860	6.8	
97	Low-pressure reverse osmosis membrane made of cellulose nanofiber and carbon nanotube polyamide nano-nanocomposite for high purity water production. <i>Chemical Engineering Journal</i> , 2022 , 137359	14.7	1
96	Reversible fusion-fission fibers. <i>Science</i> , 2021 , 372, 573	33.3	
95	Graphene Oxide Membranes for Water Filtration. <i>Membrane</i> , 2021 , 46, 184-186	0	
94	Graphene oxide membranes for lactose-free milk. <i>Carbon</i> , 2021 , 181, 118-129	10.4	5
93	Nanocomposite desalination membranes made of aromatic polyamide with cellulose nanofibers: synthesis, performance, and water diffusion study. <i>Nanoscale</i> , 2020 , 12, 19628-19637	7.7	11
92	Facile synthesis of graphene sheets intercalated by carbon spheres for high-performance supercapacitor electrodes. <i>Carbon</i> , 2020 , 167, 11-18	10.4	8
91	4-nitrophenol optical sensing with N doped oxidized carbon dots. <i>Journal of Hazardous Materials</i> , 2020 , 386, 121643	12.8	29
90	Spontaneous chemical functionalization via coordination of Au single atoms on monolayer MoS ₂ . <i>Science Advances</i> , 2020 , 6,	14.3	22
89	Single-atom doping of MoS ₂ with manganese enables ultrasensitive detection of dopamine: Experimental and computational approach. <i>Science Advances</i> , 2020 , 6, eabc4250	14.3	57
88	Enhanced desalination performance in compacted carbon-based reverse osmosis membranes. <i>Nanoscale Advances</i> , 2020 , 2, 3444-3451	5.1	2
87	Enhanced Antifouling Feed Spacer Made from a Carbon Nanotube-Polypropylene Nanocomposite. <i>ACS Omega</i> , 2019 , 4, 15496-15503	3.9	9
86	Defect Engineering and Surface Functionalization of Nanocarbons for Metal-Free Catalysis. <i>Advanced Materials</i> , 2019 , 31, e1805717	24	88
85	New Insights in the Natural Organic Matter Fouling Mechanism of Polyamide and Nanocomposite Multiwalled Carbon Nanotubes-Polyamide Membranes. <i>Environmental Science & Technology</i> , 2019 , 53, 6255-6263	10.3	27
84	Catalytic Nanocarbons: Defect Engineering and Surface Functionalization of Nanocarbons for Metal-Free Catalysis (Adv. Mater. 13/2019). <i>Advanced Materials</i> , 2019 , 31, 1970096	24	2
83	Platinum nanoparticles supported on electrochemically oxidized and exfoliated graphite for the oxygen reduction reaction. <i>Electrochimica Acta</i> , 2019 , 298, 172-185	6.7	16

82	Simultaneous intercalated assembly of mesostructured hybrid carbon nanofiber/reduced graphene oxide and its use in electrochemical sensing. <i>Nanotechnology</i> , 2019 , 30, 025601	3.4	3
81	Water Diffusion Mechanism in Carbon Nanotube and Polyamide Nanocomposite Reverse Osmosis Membranes: A Possible Percolation-Hopping Mechanism. <i>Physical Review Applied</i> , 2018 , 9,	4.3	16
80	Robust water desalination membranes against degradation using high loads of carbon nanotubes. <i>Scientific Reports</i> , 2018 , 8, 2748	4.9	32
79	Nanostructured carbon materials for enhanced nitrobenzene adsorption: Physical vs. chemical surface properties. <i>Carbon</i> , 2018 , 139, 833-844	10.4	31
78	Effective Antiscaling Performance of Reverse-Osmosis Membranes Made of Carbon Nanotubes and Polyamide Nanocomposites. <i>ACS Omega</i> , 2018 , 3, 6047-6055	3.9	21
77	Salt rejection behavior of carbon nanotube-polyamide nanocomposite reverse osmosis membranes in several salt solutions. <i>Desalination</i> , 2018 , 443, 165-171	10.3	23
76	Two-dimensional and three-dimensional hybrid assemblies based on graphene oxide and other layered structures: A carbon science perspective. <i>Carbon</i> , 2017 , 125, 437-453	10.4	20
75	Effective NaCl and dye rejection of hybrid graphene oxide/graphene layered membranes. <i>Nature Nanotechnology</i> , 2017 , 12, 1083-1088	28.7	227
74	Antiorganic Fouling and Low-Protein Adhesion on Reverse-Osmosis Membranes Made of Carbon Nanotubes and Polyamide Nanocomposite. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 32192-32201	9.5	32
73	Oil removing properties of exfoliated graphite in actual produced water treatment. <i>Journal of Water Process Engineering</i> , 2017 , 20, 226-231	6.7	17
72	Structural evolution of hydrothermal carbon spheres induced by high temperatures and their electrical properties under compression. <i>Carbon</i> , 2017 , 121, 426-433	10.4	19
71	Mesoporous titania nanofibers by solution blow spinning. <i>Journal of Sol-Gel Science and Technology</i> , 2017 , 81, 468-474	2.3	14
70	Graphene oxide films, fibers, and membranes. <i>Nanotechnology Reviews</i> , 2016 , 5,	6.3	30
69	High electrical conductivity of double-walled carbon nanotube fibers by hydrogen peroxide treatments. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 74-82	13	32
68	High Performance and Chlorine Resistant Carbon Nanotube/Aromatic Polyamide Reverse Osmosis Nanocomposite Membrane. <i>MRS Advances</i> , 2016 , 1, 1469-1476	0.7	10
67	Strengthened PAN-based carbon fibers obtained by slow heating rate carbonization. <i>Scientific Reports</i> , 2016 , 6, 22988	4.9	30
66	Magnetic properties of thermally reduced graphene oxide decorated with PtNi nanoparticles. <i>Journal of Alloys and Compounds</i> , 2016 , 678, 541-548	5.7	17
65	Enzyme mediated synthesis of polypyrrole in the presence of chondroitin sulfate and redox mediators of natural origin. <i>Materials Science and Engineering C</i> , 2016 , 63, 650-6	8.3	12

64	Nanostructured carbon-based membranes: nitrogen doping effects on reverse osmosis performance. <i>NPG Asia Materials</i> , 2016 , 8, e258-e258	10.3	12
63	Fullerene and nanotube growth: new insights using first principles and molecular dynamics. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2016 , 374,	3	5
62	The influence of carbon nanotubes characteristics in their performance as positive electrodes in vanadium redox flow batteries. <i>Sustainable Energy Technologies and Assessments</i> , 2015 , 9, 105-110	4.7	21
61	Encapsulation and immobilization of papain in electrospun nanofibrous membranes of PVA cross-linked with glutaraldehyde vapor. <i>Materials Science and Engineering C</i> , 2015 , 52, 306-14	8.3	75
60	Effects of nitrogen-doped multi-walled carbon nanotubes compared to pristine multi-walled carbon nanotubes on human small airway epithelial cells. <i>Toxicology</i> , 2015 , 333, 25-36	4.4	25
59	Ultrasensitive gas detection of large-area boron-doped graphene. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 14527-32	11.5	146
58	Molecular Dynamics Study of Carbon Nanotubes/Polyamide Reverse Osmosis Membranes: Polymerization, Structure, and Hydration. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 24566-75	9.5	47
57	Oil sorption by exfoliated graphite from dilute oil/water emulsion for practical applications in produced water treatments. <i>Journal of Water Process Engineering</i> , 2015 , 8, 91-98	6.7	20
56	High-performance multi-functional reverse osmosis membranes obtained by carbon nanotube/polyamide nanocomposite. <i>Scientific Reports</i> , 2015 , 5, 13562	4.9	81
55	Directional Electrical Transport in Tough Multifunctional Layered Ceramic/Graphene Composites. <i>Advanced Electronic Materials</i> , 2015 , 1, 1500132	6.4	6
54	Novel Hybridization Approaches for Graphene-Based Nanocomposites. <i>Science of Advanced Materials</i> , 2015 , 7, 1962-1978	2.3	5
53	Rice husk-derived graphene with nano-sized domains and clean edges. <i>Small</i> , 2014 , 10, 2766-70, 2740	11	130
52	Importance of open, heteroatom-decorated edges in chemically doped-graphene for supercapacitor applications. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 9532-9540	13	80
51	Large-area Si-doped graphene: controllable synthesis and enhanced molecular sensing. <i>Advanced Materials</i> , 2014 , 26, 7593-9	24	91
50	Effect of non-electroactive additives on the early stage pyrrole electropolymerization on indium tin oxide electrodes. <i>Thin Solid Films</i> , 2014 , 566, 23-31	2.2	3
49	Non-oxidative intercalation and exfoliation of graphite by Brønsted acids. <i>Nature Chemistry</i> , 2014 , 6, 957-63	17.6	154
48	Super-stretchable graphene oxide macroscopic fibers with outstanding knotability fabricated by dry film scrolling. <i>ACS Nano</i> , 2014 , 8, 5959-67	16.7	150
47	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	1	2

46	CO ₂ adsorption on crystalline graphitic nanostructures. <i>Journal of CO₂ Utilization</i> , 2014 , 5, 60-65	7.6	14
45	Activation routes for high surface area graphene monoliths from graphene oxide colloids. <i>Carbon</i> , 2014 , 76, 220-231	10.4	72
44	Graphene: Large-Area Si-Doped Graphene: Controllable Synthesis and Enhanced Molecular Sensing (Adv. Mater. 45/2014). <i>Advanced Materials</i> , 2014 , 26, 7676-7676	24	
43	Three-dimensional nitrogen-doped multiwall carbon nanotube sponges with tunable properties. <i>Nano Letters</i> , 2013 , 13, 5514-20	11.5	97
42	Large area films of alternating graphene-carbon nanotube layers processed in water. <i>ACS Nano</i> , 2013 , 7, 10788-98	16.7	73
41	Formation of nitrogen-doped graphene nanoribbons via chemical unzipping. <i>ACS Nano</i> , 2013 , 7, 2192-2046.7	16.7	61
40	Modified Carbon Nanotubes 2013 , 189-232		2
39	Electrospun nylon nanofibers for polymer composites. <i>Emerging Materials Research</i> , 2013 , 2, 53-57	1.4	4
38	Enzymatically synthesized polyaniline film deposition studied by simultaneous open circuit potential and electrochemical quartz crystal microbalance measurements. <i>Journal of Colloid and Interface Science</i> , 2012 , 369, 103-10	9.3	12
37	Energetic graphene oxide: Challenges and opportunities. <i>Nano Today</i> , 2012 , 7, 137-152	17.9	235
36	Isothermal crystallization of novel polypropylene/polyaniline-grafted-short glass fiber (Pan-g-SGF) composites. <i>Emerging Materials Research</i> , 2012 , 1, 39-48	1.4	4
35	Peroxidase-mediated synthesis of water-soluble fully sulfonated polyaniline. <i>Synthetic Metals</i> , 2012 , 162, 794-799	3.6	20
34	Clean nanotube unzipping by abrupt thermal expansion of molecular nitrogen: graphene nanoribbons with atomically smooth edges. <i>ACS Nano</i> , 2012 , 6, 2261-72	16.7	48
33	Nitrogen-doped graphene: beyond single substitution and enhanced molecular sensing. <i>Scientific Reports</i> , 2012 , 2, 586	4.9	517
32	Morphology-induced hydrophobic behavior of electrospun polyhydroxyalkanoate membranes. <i>Materials Research Society Symposia Proceedings</i> , 2012 , 1466, 32		5
31	Enzymatic Synthesis of Polyaniline/Graphite Oxide Nanocomposites. <i>Materials Research Society Symposia Proceedings</i> , 2012 , 1448, 19		1
30	Electrospun Nylon-Graphene Nanocomposites Synthesis and Microstructure. <i>Materials Research Society Symposia Proceedings</i> , 2012 , 1453, 7		4
29	Use of Silica Tubes as Nanocontainers for Corrosion Inhibitor Storage. <i>Journal of Nanotechnology</i> , 2011 , 2011, 1-9	3.5	15

28	Influence of P3HT concentration on morphological, optical and electrical properties of P3HT/PS and P3HT/PMMA binary blends. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2011 , 176, 1393-1400	3.1	34
27	Electrically conducting polypropylene/polyaniline-grafted-short glass fiber composites: Microstructure and dynamic mechanical analysis. <i>Polymer Engineering and Science</i> , 2011 , 51, 254-263	2.3	9
26	The Effect of a Chemically Modified Graphene in Water Based Corrosion Coating. <i>ECS Transactions</i> , 2011 , 36, 111-118	1	4
25	Electrospinning Smart Polymeric Inhibitor Nanocontainer System for Copper Corrosion. <i>ECS Transactions</i> , 2011 , 36, 119-127	1	6
24	Self-Propagating Domino-like Reactions in Oxidized Graphite. <i>Advanced Functional Materials</i> , 2010 , 20, 2867-2873	15.6	271
23	Self-Propagating Domino-like Reactions in Oxidized Graphite. <i>Advanced Functional Materials</i> , 2010 , 20, n/a-n/a	15.6	1
22	Enzymatic Synthesis of Polyaniline and Other Electrically Conductive Polymers 2010 , 187-210		2
21	Biomimetic polymerization of aniline using hematin supported on halloysite nanotubes. <i>Applied Catalysis A: General</i> , 2010 , 381, 267-273	5.1	52
20	Room-temperature deposition of crystalline patterned ZnO films by confined dewetting lithography. <i>Applied Surface Science</i> , 2010 , 256, 3386-3389	6.7	11
19	Mechanical properties and fracture behavior of polypropylene reinforced with polyaniline-grafted short glass fibers. <i>Journal of Applied Polymer Science</i> , 2009 , 112, 934-941	2.9	18
18	Viscoelastic properties of POSS η tyrene nanocomposite blended with polystyrene. <i>Rheologica Acta</i> , 2009 , 48, 641-652	2.3	35
17	Self-affinity study of nanostructured porous silicon η crystalline silicon interfaces. <i>Applied Surface Science</i> , 2009 , 256, 645-649	6.7	4
16	Electrospun nylon nanofibers as effective reinforcement to polyaniline membranes. <i>ACS Applied Materials & Interfaces</i> , 2009 , 1, 2502-8	9.5	44
15	Flash reduction and patterning of graphite oxide and its polymer composite. <i>Journal of the American Chemical Society</i> , 2009 , 131, 11027-32	16.4	743
14	Melt rheology of polypropylene reinforced with polyaniline-coated short glass fibers. <i>Journal of Applied Polymer Science</i> , 2008 , 109, 2207-2218	2.9	11
13	Biocatalytic synthesis of polypyrrole powder, colloids, and films using horseradish peroxidase. <i>Journal of Colloid and Interface Science</i> , 2008 , 328, 263-9	9.3	37
12	Electrochemical polymerization of an aniline-terminated self-assembled monolayer on indium tin oxide electrodes and its effect on polyaniline electrodeposition. <i>Thin Solid Films</i> , 2008 , 516, 4793-4802	2.2	10
11	Morphology, thermal, and mechanical properties of polypropylene/polyaniline coated short glass fiber composites. <i>Journal of Applied Polymer Science</i> , 2007 , 105, 2387-2395	2.9	16

10	Effect of modified ITO substrate on electrochromic properties of polyaniline films. <i>Solar Energy Materials and Solar Cells</i> , 2007 , 91, 1444-1448	6.4	32
9	Enzymatic synthesis of pH-responsive polyaniline colloids by using chitosan as steric stabilizer. <i>European Polymer Journal</i> , 2007 , 43, 3471-3479	5.2	18
8	Improvement on the corrosion protection of conductive polymers in pemfc environments by adhesives. <i>Journal of Power Sources</i> , 2007 , 168, 184-190	8.9	28
7	Enzymatic polymerization of aniline in the presence of different inorganic substrates. <i>Materials Chemistry and Physics</i> , 2007 , 105, 136-141	4.4	21
6	pH- and thermosensitive polyaniline colloidal particles prepared by enzymatic polymerization. <i>Langmuir</i> , 2007 , 23, 8-12	4	52
5	Enzymatic synthesis of colloidal polyaniline particles. <i>Polymer</i> , 2006 , 47, 1563-1568	3.9	47
4	Template-free enzymatic synthesis of electrically conducting polyaniline using soybean peroxidase. <i>European Polymer Journal</i> , 2005 , 41, 1129-1135	5.2	76
3	Nucleation activity of polyaniline coated short glass fiber towards isotactic polypropylene. <i>Journal of Materials Science</i> , 2005 , 40, 5107-5109	4.3	9
2	Comparative study of polyaniline cast films prepared from enzymatically and chemically synthesized polyaniline. <i>Polymer</i> , 2004 , 45, 4711-4717	3.9	90
1	Layer-by-layer assembled films of a rigid poly(phenyl-ethynylene) and alternate poly(phenyl-ethynylene)/poly(aniline). <i>Synthetic Metals</i> , 2003 , 139, 155-161	3.6	11