

# Rafael Silva

## List of Publications by Year in descending order

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68  
papers

10,284  
citations

186265

28  
h-index

91884

69  
g-index

73  
all docs

73  
docs citations

73  
times ranked

16947  
citing authors

#	ARTICLE	IF	CITATIONS
1	Enhanced catalytic activity in strained chemically exfoliated WS <sub>2</sub> nanosheets for hydrogen evolution. <i>Nature Materials</i> , 2013, 12, 850-855.	27.5	2,326
2	Cu and Cu-Based Nanoparticles: Synthesis and Applications in Catalysis. <i>Chemical Reviews</i> , 2016, 116, 3722-3811.	47.7	2,051
3	Conducting MoS <sub>2</sub> Nanosheets as Catalysts for Hydrogen Evolution Reaction. <i>Nano Letters</i> , 2013, 13, 6222-6227.	9.1	1,948
4	Cobalt-Embedded Nitrogen-Rich Carbon Nanotubes Efficiently Catalyze Hydrogen Evolution Reaction at All pH Values. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 4372-4376.	13.8	857
5	Efficient Metal-Free Electrocatalysts for Oxygen Reduction: Polyaniline-Derived N- and O-Doped Mesoporous Carbons. <i>Journal of the American Chemical Society</i> , 2013, 135, 7823-7826.	13.7	661
6	Efficient oxygen evolution reaction catalyzed by low-density Ni-doped Co <sub>3</sub> O <sub>4</sub> nanomaterials derived from metal-embedded graphitic C <sub>3</sub> N <sub>4</sub> . <i>Chemical Communications</i> , 2013, 49, 7522.	4.1	220
7	Synthesis and characterization of ZnO, CuO and a mixed Zn and Cu oxide. <i>Materials Chemistry and Physics</i> , 2009, 115, 110-115.	4.0	180
8	Aplicações de fibras lignocelulósicas na química de polímeros e em compostos. <i>Química Nova</i> , 2009, 32, 661-671.	0.3	111
9	Cu-doped carbon nitride: Bio-inspired synthesis of H <sub>2</sub> -evolving electrocatalysts using graphitic carbon nitride (g-C <sub>3</sub> N <sub>4</sub> ) as a host material. <i>Applied Surface Science</i> , 2015, 357, 221-228.	6.1	97
10	Hydrogels based on PAAm network with PNIPAAm included: hydrophilic-hydrophobic transition measured by the partition of Orange II and Methylene Blue in water. <i>Polymer</i> , 2003, 44, 4213-4219.	3.8	88
11	A self-cleaning porous TiO <sub>2</sub> -Ag core-shell nanocomposite material for surface-enhanced Raman scattering. <i>Chemical Communications</i> , 2013, 49, 382-384.	4.1	84
12	Edge-Plane-Rich Nitrogen-Doped Carbon Nanoneedles and Efficient Metal-Free Electrocatalysts. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 7171-7175.	13.8	83
13	Copper nanoparticles stabilized by reduced graphene oxide for CO <sub>2</sub> reduction reaction. <i>Materials for Renewable and Sustainable Energy</i> , 2015, 4, 1.	3.6	68
14	Mechanically improved polyvinyl alcohol-composite films using modified cellulose nanowhiskers as nano-reinforcement. <i>Carbohydrate Polymers</i> , 2018, 191, 25-34.	10.2	58
15	Hybrid materials for bone tissue engineering from biomimetic growth of hydroxiapatite on cellulose nanowhiskers. <i>Carbohydrate Polymers</i> , 2016, 152, 734-746.	10.2	54
16	N-doped ordered mesoporous carbons with improved charge storage capacity by tailoring N-dopant density with solvent-assisted synthesis. <i>Journal of Materials Chemistry A</i> , 2014, 2, 15181-15190.	10.3	50
17	Cellulose nanowhiskers decorated with silver nanoparticles as an additive to antibacterial polymers membranes fabricated by electrospinning. <i>Journal of Colloid and Interface Science</i> , 2018, 531, 705-715.	9.4	50
18	Multifunctional hybrid aerogels: hyperbranched polymer-trapped mesoporous silica nanoparticles for sustained and prolonged drug release. <i>Nanoscale</i> , 2018, 10, 1704-1715.	5.6	48

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19	Noble Metal-Free Oxidative Electrocatalysts: Polyaniline and Co(II)-Polyaniline Nanostructures Hosted in Nanoporous Silica. <i>Advanced Materials</i> , 2012, 24, 1878-1883.	21.0	47
20	A sensitive electrochemical sensor for Pb <sup>2+</sup> ions based on ZnO nanofibers functionalized by L-cysteine. <i>Journal of Molecular Liquids</i> , 2020, 309, 113041.	4.9	45
21	From ionic liquid-modified cellulose nanowhiskers to highly active metal-free nanostructured carbon catalysts for the hydrazine oxidation reaction. <i>Journal of Materials Chemistry A</i> , 2017, 5, 1066-1077.	10.3	40
22	Advanced fibroblast proliferation inhibition for biocompatible coating by electrostatic layer-by-layer assemblies of heparin and chitosan derivatives. <i>Journal of Colloid and Interface Science</i> , 2016, 474, 9-17.	9.4	38
23	In situ growth of manganese oxide nanosheets over titanium dioxide nanofibers and their performance as active material for supercapacitor. <i>Journal of Colloid and Interface Science</i> , 2019, 555, 373-382.	9.4	35
24	Co <sub>3</sub> O <sub>4</sub> nanoparticles/cellulose nanowhiskers-derived amorphous carbon nanoneedles: sustainable materials for supercapacitors and oxygen reduction electrocatalysis. <i>RSC Advances</i> , 2015, 5, 49385-49391.	3.6	32
25	Hybrid Materials and Nanocomposites as Multifunctional Biomaterials. <i>Current Pharmaceutical Design</i> , 2017, 23, 3794-3813.	1.9	32
26	Deriving Efficient Porous Heteroatom-Doped Carbon Electrocatalysts for Hydrazine Oxidation from Transition Metal Ions-Coordinated Casein. <i>Advanced Functional Materials</i> , 2019, 29, 1808486.	14.9	31
27	Nanoporous Heteroatom-Doped Carbons Derived from Cotton Waste: Efficient Hydrazine Oxidation Electrocatalysts. <i>ACS Applied Energy Materials</i> , 2019, 2, 2313-2323.	5.1	29
28	Multiple hydrophilic polymer ultra-thin layers covalently anchored to polyethylene films. <i>Polymer</i> , 2008, 49, 4066-4075.	3.8	28
29	Maleimide Immobilized on a PE Surface: Preparation, Characterization and Application as a Free-Radical Photoinitiator. <i>Langmuir</i> , 2009, 25, 873-880.	3.5	28
30	Au/SBA-15-Based Robust and Convenient-to-Use Nanopowder Material for Surface-Enhanced Raman Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2011, 115, 22810-22817.	3.1	28
31	Effect of phase composition on the photocatalytic activity of titanium dioxide obtained from supercritical antisolvent. <i>Journal of Colloid and Interface Science</i> , 2019, 535, 245-254.	9.4	28
32	Preparation and characterization of NiO, Fe <sub>2</sub> O <sub>3</sub> , Ni <sub>0.04</sub> Zn <sub>0.96</sub> O and Fe <sub>0.03</sub> Zn <sub>0.97</sub> O nanoparticles. <i>Materials Chemistry and Physics</i> , 2009, 118, 447-452.	4.0	27
33	Hydroxyapatite nanowhiskers embedded in chondroitin sulfate microspheres as colon targeted drug delivery systems. <i>Journal of Materials Chemistry B</i> , 2015, 3, 6837-6846.	5.8	27
34	Metal-free ovalbumin-derived N-S-co-doped nanoporous carbon materials as efficient electrocatalysts for oxygen reduction reaction. <i>Applied Surface Science</i> , 2019, 467-468, 75-83.	6.1	26
35	Biomimetic nanocomposite based on hydroxyapatite mineralization over chemically modified cellulose nanowhiskers: An active platform for osteoblast proliferation. <i>International Journal of Biological Macromolecules</i> , 2019, 125, 133-142.	7.5	23
36	Nanofibrous silica microparticles/polymer hybrid aerogels for sustained delivery of poorly water-soluble camptothecin. <i>Journal of Colloid and Interface Science</i> , 2020, 567, 92-102.	9.4	22

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37	Functionalized Mesoporous Silica Nanoparticles for Glucose- and pH- Stimulated Release of Insulin. <i>Zeitschrift Fur Anorganische Und Allgemeine Chemie</i> , 2014, 640, 616-623.	1.2	18
38	Covalently-layers of PVA and PAA and in situ formed Ag nanoparticles as versatile antimicrobial surfaces. <i>International Journal of Biological Macromolecules</i> , 2016, 91, 329-337.	7.5	18
39	Calcium Carbonate Crystallization on a Polyethylene Surface Containing Ultrathin Layers of Hydrophilic Polymers. <i>Crystal Growth and Design</i> , 2009, 9, 3307-3312.	3.0	17
40	Metal doped carbon nanoneedles and effect of carbon organization with activity for hydrogen evolution reaction (HER). <i>Carbohydrate Polymers</i> , 2016, 137, 719-725.	10.2	17
41	Synthesis of Ag-PVA and Ag-PVA/PET-s20 composites by supercritical CO2 method and study of silver nanoparticle growth. <i>Journal of the Brazilian Chemical Society</i> , 2008, 19, 1224-1229.	0.6	16
42	Designing hybrid materials with multifunctional interfaces for wound dressing, electrocatalysis, and chemical separation. <i>Journal of Colloid and Interface Science</i> , 2019, 533, 106-125.	9.4	16
43	Miscibility influence in the thermal stability and kinetic parameters of poly (3-hydroxybutyrate)/poly (ethylene terephthalate) sulphonated blends. <i>Polimeros</i> , 2010, 20, 153-158.	0.7	15
44	Two-dimensional thermoresponsive sub-microporous substrate for accelerated cell tissue growth and facile detachment. <i>Journal of Colloid and Interface Science</i> , 2019, 547, 78-86.	9.4	15
45	Trapped metallic cobalt nanoparticles in doped porous graphite: An electrocatalyst that gets better over reaction time. <i>Applied Catalysis B: Environmental</i> , 2017, 217, 144-153.	20.2	14
46	Mesoporous silica decorated with L-cysteine as active hybrid materials for electrochemical sensing of heavy metals. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 106492.	6.7	14
47	Growth of hydrogel nano- and microlayers covalently bounded onto PE surface. <i>Applied Surface Science</i> , 2009, 255, 6345-6354.	6.1	11
48	Optimization of Antioxidant Compounds Extraction from Flesh of New Developed Apple Cultivar Using Response Surface Methodology. <i>Food Analytical Methods</i> , 2013, 6, 1407-1415.	2.6	11
49	Solid-state polymerization of EDTA and ethylenediamine as one-step approach to monodisperse hyperbranched polyamides. <i>RSC Advances</i> , 2016, 6, 40717-40723.	3.6	11
50	Controlling cell growth with tailorable 2D nanoholes arrays. <i>Journal of Colloid and Interface Science</i> , 2016, 466, 150-161.	9.4	10
51	Drug polarity effect over the controlled release in casein and chondroitin sulfate-based hydrogels. <i>International Journal of Biological Macromolecules</i> , 2020, 158, 116-126.	7.5	10
52	Synthesis of a thermosensitive surface by construction of a thin layer of poly (N-isopropylacrylamide) on maleimide-immobilized polypropylene. <i>Journal of Colloid and Interface Science</i> , 2012, 367, 494-501.	9.4	8
53	Carbon-Capped Zerovalent Nickel and Cobalt Nanoparticles as Multitask Hybrid Electrocatalysts. <i>ACS Applied Energy Materials</i> , 2018, 1, 4939-4949.	5.1	7
54	Rod-shaped keratin nanoparticles extracted from human hair by acid hydrolysis as photothermally triggered berberine delivery system. <i>Advanced Powder Technology</i> , 2022, 33, 103353.	4.1	7

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55	Nitrogen and Phosphorus Co-doped Nanoporous Carbons from Phosphoprotein/Silica Self-Assemblies for Energy Storage in Supercapacitors. <i>ChemElectroChem</i> , 2020, 7, 4773-4781.	3.4	6
56	Nanoporous carbons derived from metal-conjugated phosphoprotein/silica: Efficient electrocatalysts for oxygen reduction and hydrazine oxidation reactions. <i>Journal of Electroanalytical Chemistry</i> , 2021, 882, 114997.	3.8	6
57	Hosted Formation of PbS Crystals on Polyethylene Modified Surface. <i>Journal of the Brazilian Chemical Society</i> , 2013, 24, 336-343.	0.6	6
58	Water Droplet Self-Assembly to Au Nanoporous Films with Special Light Trapping and Surface Electromagnetic Field Enhancement. <i>Langmuir</i> , 2018, 34, 14124-14133.	3.5	5
59	Lung toxicities of core&ndash;shell nanoparticles composed of carbon, cobalt, and silica. <i>International Journal of Nanomedicine</i> , 2013, 8, 1223.	6.7	4
60	Enhancing Near-Infrared Photothermal Efficiency of Biocompatible Flame-Synthesized Carbon Nano-Onions with Metal Dopants and Silica Coating. <i>ACS Applied Bio Materials</i> , 2020, 3, 5984-5994.	4.6	4
61	Electrospun fibers of poly (vinyl alcohol): zinc acetate (PVA:AcZn) and further ZnO production: evaluation of PVA:AcZn ratio and annealing temperature effects on ZnO structure. <i>Journal of Nanoparticle Research</i> , 2020, 22, 1.	1.9	4
62	N-doped spherical activated carbon from dye adsorption: Bifunctional electrocatalyst for hydrazine oxidation and oxygen reduction. <i>Journal of Environmental Chemical Engineering</i> , 2022, 10, 107458.	6.7	4
63	Unveiling One&ndash;Dimensional Supramolecular Structures Formed through $\pi$ - $\pi$ Stacking of Phenothiazines by Differential Pulse Voltammetry. <i>ChemPhysChem</i> , 2017, 18, 1224-1228.	2.1	3
64	Solid-state synthesized hyperbranched polyamides as hosts for antimicrobial silver nanoparticles. <i>Materials Today Communications</i> , 2019, 21, 100647.	1.9	2
65	Fast and facile size selection processing for high quality cellulose nanowhiskers. <i>Cellulose</i> , 2020, 27, 205-214.	4.9	2
66	Enhancement of selectivity towards the synthesis of hydrogen peroxide by dimensional effect in mesoporous carbon. <i>Microporous and Mesoporous Materials</i> , 2022, 333, 111741.	4.4	2
67	Sulphonated Poly(ethylene terephthalate)/Poly(3-hydroxy butyrate) Blends: Miscibility, Thermal Behavior, and Specific Interactions. <i>E-Polymers</i> , 2007, 7, .	3.0	0
68	Nanocatalysts for fuel cells. , 2022, , 579-604.		0