Flavio L Souza

List of Publications by Year
in descending order

79 papers	1,580 citations	331642 21 h-index	361001 35 g-index
82 all docs	82 docs citations	82 times ranked	1932 citing authors

#	Article	IF	Citations
1	On electron loss lowering at hematite photoelectrode interfaces. Journal of the American Ceramic Society, 2023, 106, 79-92.	3.8	6
2	Binary Transition Metal NiFeO _x and CoFeO _x Cocatalysts Boost the Photodriven Water Oxidation over Fe ₂ TiO ₅ Nanoparticles. ChemNanoMat, 2022, 8, .	2.8	6
3	On the Effect of Thermal Processing on Sn Diffusion and Efficiency Enhancement in Hematite/FTO Photoanodes. ECS Journal of Solid State Science and Technology, 2022, 11, 043001.	1.8	5
4	Solution chemistry back-contact FTO/hematite interface engineering for efficient photocatalytic water oxidation. Chinese Journal of Catalysis, 2022, 43, 1247-1257.	14.0	14
5	Ideal dopant to increase charge separation efficiency in hematite photoanodes: germanium. Journal of Materials Chemistry A, 2022, 10, 13456-13466.	10.3	4
6	Advances in Engineered Metal Oxide Thin Films by Low-Cost, Solution-Based Techniques for Green Hydrogen Production. Nanomaterials, 2022, 12, 1957.	4.1	5
7	Challenges and prospects about the graphene role in the design of photoelectrodes for sunlight-driven water splitting. RSC Advances, 2021, 11, 14374-14398.	3.6	8
8	Insights on Thickness-Dependent Charge Transfer Efficiency Modulated by Ultrasonic Treatment in Hematite Photoanodes. Journal of Physical Chemistry C, 2021, 125, 9981-9989.	3.1	3
9	Unveiling the dopant segregation effect at hematite interfaces. Applied Physics Letters, 2021, 118, .	3.3	13
10	Improving Thermodynamic Stability of nano-LiMn₂O₄ for Li-Ion Battery Cathode. Chemistry of Materials, 2021, 33, 3915-3925.	6.7	19
11	An intensity modulated photocurrent spectroscopy study of the role of titanium in thick hematite photoanodes. Applied Physics Letters, 2021, 119, .	3.3	11
12	On the relevance of understanding and controlling the locations of dopants in hematite photoanodes for low-cost water splitting. Applied Physics Letters, 2021, 119, .	3.3	16
13	Engineering interfacial modification on nanocrystalline hematite photoanodes: A close look into the efficiency parameters. Solar Energy Materials and Solar Cells, 2020, 208, 110377.	6.2	12
14	Revealing the synergy of Sn insertion in hematite for nextâ€generation solar water splitting nanoceramics. International Journal of Ceramic Engineering & Science, 2020, 2, 204-227.	1.2	16
15	Interface engineering of nanoceramic hematite photoelectrode for solar energy conversion. Journal of the American Ceramic Society, 2020, 103, 6833-6846.	3.8	14
16	Engineering hematite/plasmonic nanoparticle interfaces for efficient photoelectrochemical water splitting. Journal of Applied Physics, 2020, 128, 063103.	2.5	7
17	Pseudobrookite Fe₂TiO₅ Nanoparticles Loaded with Earth-Abundant Nanosized NiO and Co₃O₄ Cocatalysts for Photocatalytic O₂ Evolution via Solar Water Splitting. ACS Applied Nano Materials, 2020, 3, 9303-9317.	5.0	17
18	All-electrochemically synthesized tin and nickel oxide-modified hematite as photo-electrocatalyst anodes for solar-driven water splitting. Journal of Catalysis, 2020, 391, 273-281.	6.2	12

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19	Optimization of sulfonation process for the development of carbon-based catalyst from crambe meal via response surface methodology. Energy Conversion and Management, 2020, 217, 112975.	9.2	33
20	Role of Cocatalysts on Hematite Photoanodes in Photoelectrocatalytic Water Splitting: Challenges and Future Perspectives. ChemCatChem, 2020, 12, 3156-3169.	3.7	35
21	Enhancing the solar water splitting activity of TiO2 nanotube-array photoanode by surface coating with La-doped SrTiO3. Solar Energy Materials and Solar Cells, 2020, 208, 110428.	6.2	28
22	Hematite Surface Modification toward Efficient Sunlight-Driven Water Splitting Activity: The Role of Gold Nanoparticle Addition. Journal of Physical Chemistry C, 2020, 124, 6171-6179.	3.1	21
23	An intensity-modulated photocurrent spectroscopy study of the charge carrier dynamics of WO3/BiVO4 heterojunction systems. Solar Energy Materials and Solar Cells, 2020, 208, 110378.	6.2	31
24	Tailoring a Zinc Oxide Nanorod Surface by Adding an Earthâ€Abundant Cocatalyst for Induced Sunlight Water Oxidation. ChemPhysChem, 2020, 21, 476-483.	2.1	4
25	Strategies to improve the photoelectrochemical performance of hematite nanorod-based photoanodes. APL Materials, 2020, 8, .	5.1	29
26	(Invited) Engineering Hematite Interfaces By Dual Modification for Sunlight Driven Water Oxidation Reaction. ECS Meeting Abstracts, 2020, MA2020-01, 1708-1708.	0.0	0
27	Tailoring hematite/FTO interfaces: New horizons for spin-coated hematite photoanodes targeting water splitting. Materials Letters, 2019, 254, 218-221.	2.6	20
28	Discovering a selective semimetal element to increase hematite photoanode charge separation efficiency. Journal of Materials Chemistry A, 2019, 7, 16992-16998.	10.3	22
29	Annealing control of hydrothermally grown hematite nanorods: Implication of structural changes and Cl concentration on weak ferromagnetism. Journal of Alloys and Compounds, 2019, 799, 83-88.	5.5	12
30	Unraveling the role of single layer graphene as overlayer on hematite photoanodes. Journal of Catalysis, 2019, 372, 109-118.	6.2	13
31	Unraveling the Role of Sn Segregation in the Electronic Transport of Polycrystalline Hematite: Raising the Electronic Conductivity by Lowering the Grainâ€Boundary Blocking Effect. Advanced Electronic Materials, 2019, 5, 1900065.	5.1	30
32	Controlling the Activation Energy for Single-Ion Diffusion through a Hybrid Polyelectrolyte Matrix by Manipulating the Central Coordinate Semimetal Atom. Journal of Physical Chemistry Letters, 2019, 10, 7684-7689.	4.6	0
33	Novel design of photocatalyst coaxial ferromagnetic core and semiconducting shell microwire architecture. Journal of Catalysis, 2019, 370, 61-69.	6.2	5
34	(Invited) Engineering Hematite Photoelectrodes Interfaces for Sunlight Water Oxidation Reaction. ECS Meeting Abstracts, 2019, , .	0.0	0
35	Rapid microwave-assisted synthesis of zirconium aluminide. Materials Chemistry and Physics, 2018, 211, 249-257.	4.0	2
36	Synthesis of SnS and ZnS Hollow Microarchitectures Decorated with Nanostructures and Their Photocatalytic Behavior for Dye Degradation. ChemistrySelect, 2018, 3, 3774-3780.	1.5	11

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37	New ultrasonic assisted co-precipitation for high surface area oxide based nanostructured materials. Reaction Chemistry and Engineering, 2018, 3, 244-250.	3.7	4
38	Kinetic and thermodynamic effects of manganese as a densification aid in yttria-stabilized zirconia. Journal of the European Ceramic Society, 2018, 38, 1750-1759.	5.7	22
39	Latest Advances on the Columnar Nanostructure for Solar Water Splitting. , 2018, , 141-160.		3
40	Photoactive multilayer WO3 electrode synthesized via dip-coating. Ceramics International, 2018, 44, 22983-22990.	4.8	4
41	Sunlight-driven water splitting using hematite nanorod photoelectrodes. Anais Da Academia Brasileira De Ciencias, 2018, 90, 745-762.	0.8	7
42	Synthesis, growth mechanism, optical properties and catalytic activity of ZnO microcrystals obtained via hydrothermal processing. RSC Advances, 2017, 7, 24263-24281.	3.6	55
43	Synergetic effect of Sn addition and oxygen-deficient atmosphere to fabricate active hematite photoelectrodes for light-induced water splitting. Nanotechnology, 2017, 28, 454002.	2.6	12
44	High temperature activation of hematite nanorods for sunlight driven water oxidation reaction. Physical Chemistry Chemical Physics, 2017, 19, 25025-25032.	2.8	23
45	Surface Fe vacancy defects on haematite and their role in light-induced water splitting in artificial photosynthesis. Physical Chemistry Chemical Physics, 2017, 19, 31410-31417.	2.8	12
46	Hematite Surface Activation by Chemical Addition of Tin Oxide Layer. ChemPhysChem, 2016, 17, 2710-2717.	2.1	17
47	Enhancing Hematite Photoanode Activity for Water Oxidation by Incorporation of Reduced Graphene Oxide. ChemPhysChem, 2016, 17, 170-177.	2.1	13
48	Effect of thermal treatment on solidâ€"solid interface of hematite thin film synthesized by spin-coating deposition solution. Thin Solid Films, 2016, 604, 28-39.	1.8	17
49	Zinc Oxide Flower-Like Nanostructures That Exhibit Enhanced Toxicology Effects in Cancer Cells. ACS Applied Materials & Interfaces, 2016, 8, 32699-32705.	8.0	38
50	Dielectric characterization of microwave sintered lead zirconate titanate ceramics. Ceramics International, 2016, 42, 14423-14430.	4.8	14
51	Effect of microwave irradiation on hydrogen sorption properties of hand mixed MgH2 â€" 10Âwt.% carbon fibers. Journal of Alloys and Compounds, 2016, 676, 1-8.	5.5	13
52	Performance of wind-powered soil electroremediation process for the removal of 2,4-D from soil. Journal of Environmental Management, 2016, 171, 128-132.	7.8	16
53	Thermal enhancement of water affinity on the surface of undoped hematite photoelectrodes. Solar Energy Materials and Solar Cells, 2016, 144, 395-404.	6.2	12
54	Multihierarchical electrodes based on titanate nanotubes and zinc oxide nanorods for photoelectrochemical water splitting. Journal of Materials Chemistry A, 2016, 4, 944-952.	10.3	19

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55	Enhanced water oxidation efficiency of hematite thin films by oxygen-deficient atmosphere. Journal of Materials Research, 2015, 30, 3595-3604.	2.6	19
56	A wind-powered BDD electrochemical oxidation process for the removal of herbicides. Journal of Environmental Management, 2015, 158, 36-39.	7.8	46
57	Morphological and structural evolution from akaganeite to hematite of nanorods monitored by ex situ synchrotron X-ray powder diffraction. RSC Advances, 2014, 4, 17753-17759.	3.6	30
58	Recent advances on solar water splitting using hematite nanorod film produced by purpose-built material methods. Journal of Materials Research, 2014, 29, 16-28.	2.6	33
59	Facile synthetic route for producing one-dimensional zinc oxide nanoflowers and characterization of their optical properties. Journal of Alloys and Compounds, 2013, 577, 158-164.	5.5	30
60	Zinc oxide flower-like synthesized under hydrothermal conditions. Thin Solid Films, 2013, 537, 97-101.	1.8	12
61	Largeâ€Area Plasmonic Substrate of Silverâ€Coated Iron Oxide Nanorod Arrays for Plasmonâ€Enhanced Spectroscopy. ChemPhysChem, 2013, 14, 1871-1876.	2.1	6
62	UV-Light Effects on Cytochrome C Modulated by the Aggregation State of Phenothiazines. PLoS ONE, 2013, 8, e76857.	2.5	7
63	Vertically Oriented Iron Oxide Films Produced by Hydrothermal Process: Effect of Thermal Treatment on the Physical Chemical Properties. ACS Applied Materials & Interfaces, 2012, 4, 5515-5523.	8.0	51
64	Highly oriented hematite nanorods arrays for photoelectrochemical water splitting. Journal of Power Sources, 2012, 205, 525-529.	7.8	89
65	Structural and dielectric characterization of praseodymium-modified lead titanate ceramics synthesized by the OPM route. Materials Chemistry and Physics, 2011, 130, 259-263.	4.0	8
66	Quenching of Photoactivity in Phthalocyanine Copper(II) -Titanate Nanotube Hybrid Systems. Journal of Physical Chemistry C, 2011, 115, 12082-12089.	3.1	11
67	Characterization of dense lead lanthanum titanate ceramics prepared from powders synthesized by the oxidant peroxo method. Materials Chemistry and Physics, 2010, 124, 1051-1056.	4.0	12
68	Nanostructured hematite thin films produced by spin-coating deposition solution: Application in water splitting. Solar Energy Materials and Solar Cells, 2009, 93, 362-368.	6.2	164
69	The influence of the film thickness of nanostructured Î±-Fe2O3 on water photooxidation. Physical Chemistry Chemical Physics, 2009, 11, 1215.	2.8	116
70	Ion Relaxation Dynamics in a Decoupled Hybrid Polyelectrolyte. ChemPhysChem, 2008, 9, 245-248.	2.1	5
71	Anomalous current-voltage behavior of CaCu3Ti4O12 ceramics. Applied Physics Letters, 2008, 93, 182912.	3.3	17
72	Lithium Ion Motion in a Hybrid Polymer: Confirmation of a Decoupled Polyelectrolyte. ChemPhysChem, 2007, 8, 1778-1781.	2.1	6

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73	Performance of a single-phase hybrid and nanocomposite polyelectrolyte in classical electrochromic devices. Electrochimica Acta, 2007, 53, 1635-1642.	5.2	5
74	Solid hybrid polyelectrolyte with high performance in electrochromic devices: Electrochemical stability and optical study. Solar Energy Materials and Solar Cells, 2007, 91, 1825-1830.	6.2	10
75	Hybrid Organicâ^'Inorganic Polymer:Â A New Approach for the Development of Decoupled Polymer Electrolytes. Chemistry of Materials, 2005, 17, 4561-4563.	6.7	29
76	Structural and electrical characterization of dense lead zirconate titanate ceramics synthesized by the oxidant-peroxo wet-chemical route. Journal of Applied Physics, 2004, 96, 2169-2172.	2.5	12
77	Sol-Gel Non-hydrolytic Synthesis of a Nanocomposite Electrolyte for Application in Lithium-ion Devices. Materials Research Society Symposia Proceedings, 2004, 822, S3.1.1.	0.1	0
78	Solâ€"gel nonhydrolytic synthesis of a hybrid organicâ€"inorganic electrolyte for application in lithium-ion devices. Solid State Ionics, 2004, 166, 83-88.	2.7	38
79	Effect of the addition of ZnO seeds on the electrical proprieties of ZnO-based varistors. Materials Chemistry and Physics, 2003, 80, 512-516.	4.0	39