Thomas M Arruda

List of Publications by Year
in descending order

36 papers	2,080 citations	471509 17 h-index	454955 30 g-index
38 all docs	38 docs citations	38 times ranked	3656 citing authors

#	Article	IF	Citations
1	Structure of the catalytic sites in Fe/N/C-catalysts for O2-reduction in PEM fuel cells. Physical Chemistry Chemical Physics, 2012, 14, 11673.	2.8	622
2	Unveiling N-Protonation and Anion-Binding Effects on Fe/N/C Catalysts for O₂ Reduction in Proton-Exchange-Membrane Fuel Cells. Journal of Physical Chemistry C, 2011, 115, 16087-16097.	3.1	300
3	Switching of ferroelectric polarization in epitaxial BaTiO3 films on silicon without a conducting bottom electrode. Nature Nanotechnology, 2013, 8, 748-754.	31.5	218
4	Ferroelectricity in Siâ€Doped HfO₂ Revealed: A Binary Leadâ€Free Ferroelectric. Advanced Materials, 2014, 26, 8198-8202.	21.0	147
5	Investigation into the Competitive and Site-Specific Nature of Anion Adsorption on Pt Using In Situ X-ray Absorption Spectroscopy. Journal of Physical Chemistry C, 2008, 112, 18087-18097.	3.1	122
6	Electrochemical strain microscopy: Probing ionic and electrochemical phenomena in solids at the nanometer level. MRS Bulletin, 2012, 37, 651-658.	3.5	83
7	Li-ion dynamics and reactivity on the nanoscale. Materials Today, 2011, 14, 548-558.	14.2	73
8	Mapping Irreversible Electrochemical Processes on the Nanoscale: Ionic Phenomena in Li Ion Conductive Glass Ceramics. Nano Letters, 2011, 11, 4161-4167.	9.1	70
9	Fundamental Aspects of Spontaneous Cathodic Deposition of Ru onto Pt/C Electrocatalysts and Membranes under Direct Methanol Fuel Cell Operating Conditions: An in Situ X-ray Absorption Spectroscopy and Electron Spin Resonance Study. Journal of Physical Chemistry C, 2010, 114, 1028-1040.	3.1	67
10	Probing Surface and Bulk Electrochemical Processes on the LaAlO₃â€“SrTiO₃ Interface. ACS Nano, 2012, 6, 3841-3852.	14.6	65
11	In situ tracking of the nanoscale expansion of porous carbon electrodes. Energy and Environmental Science, 2013, 6, 225-231.	30.8	60
12	The partially reversible formation of Li-metal particles on a solid Li electrolyte: applications toward nanobatteries. Nanotechnology, 2012, 23, 325402.	2.6	30
13	Enhanced activity and interfacial durability study of ultra low Pt based electrocatalysts prepared by ion beam assisted deposition (IBAD) method. Electrochimica Acta, 2009, 54, 6756-6766.	5.2	29
14	Nanometer-scale mapping of irreversible electrochemical nucleation processes on solid Li-ion electrolytes. Scientific Reports, 2013, 3, 1621.	3.3	29
15	Nanoscale mapping of oxygen vacancy kinetics in nanocrystalline Samarium doped ceria thin films. Applied Physics Letters, 2013, 103, .	3.3	23
16	Effect of RuO_xH_yIsland Size on PtRu Particle Aging in Methanol. Journal of Physical Chemistry C, 2009, 113, 19713-19721.	3.1	19
17	Toward Quantitative Electrochemical Measurements on the Nanoscale by Scanning Probe Microscopy: Environmental and Current Spreading Effects. ACS Nano, 2013, 7, 8175-8182.	14.6	19
18	The Effect of Sulfuric Acid Concentration on the Physical and Electrochemical Properties of Vanadyl Solutions. Batteries, 2018, 4, 40.	4.5	15

#	Article	IF	Citations
19	Probing Local Electromechanical Effects in Highly Conductive Electrolytes. ACS Nano, 2012, 6, 10139-10146.	14.6	14
20	Frequency spectroscopy of irreversible electrochemical nucleation kinetics on the nanoscale. Nanoscale, 2013, 5, 11964.	5.6	12
21	Water-mediated electrochemical nano-writing on thin ceria films. Nanotechnology, 2014, 25, 075701.	2.6	12
22	Electrochemical Strain Microscopy: Probing Electrochemical Transformations in Nanoscale Volumes. Microscopy Today, 2012, 20, 10-15.	0.3	11
23	Protein hot spots at bio-nano interfaces. Materials Today, 2011, 14, 360-365.	14.2	10
24	Vapor-Deposited Pt and Pd-Pt Catalysts for Solid Acid Fuel Cells: Short Range Structure and Interactions with the CsH₂PO₄Electrolyte. Journal of the Electrochemical Society, 2016, 163, F464-F469.	2.9	6
25	Understanding Electrocatalytic Pathways in Low and Medium Temperature Fuel Cells: Synchrotron-based In Situ X-Ray Absorption Spectroscopy. Electrochemical Society Interface, 2008, 17, 46-52.	0.4	6
26	In-Situ Synchrotron Spectroscopic Studies of Electrocatalysis on Highly Dispersed Nano-Materials. Modern Aspects of Electrochemistry, 2010, , 503-572.	0.2	4
27	ELECTROCHEMICAL STRAIN MICROSCOPY OF LI-ION AND LI-AIR BATTERY MATERIALS. World Scientific Series in Nanoscience and Nanotechnology, 2013, , 393-454.	0.1	3
28	Sub-nA spatially resolved conductivity profiling of surface and interface defects in ceria films. APL Materials, 2015, 3, 036106.	5.1	3
29	In Situ XAS Investigation of Electrocatalysts Surface Poisoning by Halides. ECS Transactions, 2007, 11, 903-911.	0.5	2
30	Effects of State of Charge on the Physical Characteristics of V(IV)/V(V) Electrolytes and Membrane for the All Vanadium Flow Battery. Batteries, 2020, 6, 49.	4.5	1
31	Observation of PtRu Particle Aging in Methanol with X-ray Absorption Spectroscopy. ECS Transactions, 2007, 11, 1359-1368.	0.5	0
32	Electrochemical and EPR Measurements of Vanadium Redox Couples for All Vanadium Redox Flow Batteries. ECS Meeting Abstracts, 2018, , .	0.0	0
33	Investigation of Waste Heat Accumulation and Internal Resistance of AA Nimh Cells. ECS Meeting Abstracts, 2018, , .	0.0	0
34	Understanding the Effects of Sulfate/Bisulfate Ions on Electrolytes for Vanadium/Sulfuric Acid Redox Flow Batteries. ECS Meeting Abstracts, 2018, , .	0.0	0
35	State of Charge Effects on Vanadium Crossover in Vanadium Redox Flow Batteries. ECS Meeting Abstracts, 2020, MA2020-01, 2895-2895.	0.0	0
36	Effect of State of Charge on Physical Properties of Vanadium Redox Flow Battery Electrolytes. ECS Meeting Abstracts, 2020, MA2020-02, 3434-3434.	0.0	0