

# Pietro P Lopes

## List of Publications by Year in descending order

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46  
papers

6,134  
citations

196777

29  
h-index

232693

48  
g-index

50  
all docs

50  
docs citations

50  
times ranked

10380  
citing authors

#	ARTICLE	IF	CITATIONS
1	Exploring the Interface of Skin-Layered Titanium Fibers for Electrochemical Water Splitting. <i>Advanced Energy Materials</i> , 2021, 11, 2002926.	10.2	48
2	Dynamically Stable Active Sites from Surface Evolution of Perovskite Materials during the Oxygen Evolution Reaction. <i>Journal of the American Chemical Society</i> , 2021, 143, 2741-2750.	6.6	156
3	A percolation theory for designing corrosion-resistant alloys. <i>Nature Materials</i> , 2021, 20, 789-793.	13.3	48
4	Employing the Dynamics of the Electrochemical Interface in Aqueous Zinc-Ion Battery Cathodes. <i>Advanced Functional Materials</i> , 2021, 31, 2102135.	7.8	34
5	Improved Rate for the Oxygen Reduction Reaction in a Sulfuric Acid Electrolyte using a Pt(111) Surface Modified with Melamine. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 3369-3376.	4.0	29
6	Eliminating dissolution of platinum-based electrocatalysts at the atomic scale. <i>Nature Materials</i> , 2020, 19, 1207-1214.	13.3	127
7	Active electrochemical interfaces stabilized through self-organized potential oscillations. <i>Electrochemistry Communications</i> , 2020, 121, 106853.	2.3	3
8	Past, present, and future of lead-acid batteries. <i>Science</i> , 2020, 369, 923-924.	6.0	135
9	The role of an interface in stabilizing reaction intermediates for hydrogen evolution in aprotic electrolytes. <i>Chemical Science</i> , 2020, 11, 3914-3922.	3.7	23
10	Dynamic stability of active sites in hydr(oxy)oxides for the oxygen evolution reaction. <i>Nature Energy</i> , 2020, 5, 222-230.	19.8	540
11	Electrokinetic Analysis of Poorly Conductive Electrocatalytic Materials. <i>ACS Catalysis</i> , 2020, 10, 4990-4996.	5.5	43
12	Synthesis and characterization of bulk $\text{NdO}_2$ and $\text{Nd}_2\text{O}_3$ . <i>Physical Review Materials</i> , 2020, 4, .	0.9	87
13	Atomic-resolution STEM Analysis of Nanoparticle During Electrocatalytic Reactions. <i>Microscopy and Microanalysis</i> , 2020, 26, 910-911.	0.2	0
14	Identical Location STEM analysis on $\text{La}_x\text{Sr}_{1-x}\text{CoO}_3$ Oxygen-Evolution Catalysts. <i>Microscopy and Microanalysis</i> , 2019, 25, 2052-2053.	0.2	1
15	Tuning of catalytic properties for electrooxidation of small organic molecules on Pt-based thin films via controlled thermal treatment. <i>Journal of Catalysis</i> , 2019, 371, 96-105.	3.1	6
16	Hydrogen evolution reaction on copper: Promoting water dissociation by tuning the surface oxophilicity. <i>Electrochemistry Communications</i> , 2019, 100, 30-33.	2.3	72
17	Electrocatalytic transformation of HF impurity to $\text{H}_2$ and LiF in lithium-ion batteries. <i>Nature Catalysis</i> , 2018, 1, 255-262.	16.1	128
18	Dynamics of electrochemical Pt dissolution at atomic and molecular levels. <i>Journal of Electroanalytical Chemistry</i> , 2018, 819, 123-129.	1.9	74

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19	Role of structural hydroxyl groups in enhancing performance of electrochemically-synthesized bilayer V2O5. <i>Nano Energy</i> , 2018, 53, 449-457.	8.2	21
20	Real-Time Monitoring of Cation Dissolution/Deintercalation Kinetics from Transition-Metal Oxides in Organic Environments. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 4935-4940.	2.1	15
21	Stability Limits and Defect Dynamics in Ag Nanoparticles Probed by Bragg Coherent Diffractive Imaging. <i>Nano Letters</i> , 2017, 17, 1595-1601.	4.5	29
22	High-Performance Rh <sub>2</sub> P Electrocatalyst for Efficient Water Splitting. <i>Journal of the American Chemical Society</i> , 2017, 139, 5494-5502.	6.6	343
23	Energy and fuels from electrochemical interfaces. <i>Nature Materials</i> , 2017, 16, 57-69.	13.3	1,484
24	Balancing activity, stability and conductivity of nanoporous core-shell iridium/iridium oxide oxygen evolution catalysts. <i>Nature Communications</i> , 2017, 8, 1449.	5.8	250
25	Design principles for hydrogen evolution reaction catalyst materials. <i>Nano Energy</i> , 2016, 29, 29-36.	8.2	629
26	Tuning the Reversibility of Mg Anodes via Controlled Surface Passivation by H <sub>2</sub> O/Cl <sup>-</sup> in Organic Electrolytes. <i>Chemistry of Materials</i> , 2016, 28, 8268-8277.	3.2	147
27	Superoxide (Electro)Chemistry on Well-Defined Surfaces in Organic Environments. <i>Journal of Physical Chemistry C</i> , 2016, 120, 15909-15914.	1.5	25
28	Relationships between Atomic Level Surface Structure and Stability/Activity of Platinum Surface Atoms in Aqueous Environments. <i>ACS Catalysis</i> , 2016, 6, 2536-2544.	5.5	196
29	Design of active and stable CoMo <sub>x</sub> chalcogels as pH-universal catalysts for the hydrogen evolution reaction. <i>Nature Materials</i> , 2016, 15, 197-203.	13.3	825
30	Double layer effects in electrocatalysis: The oxygen reduction reaction and ethanol oxidation reaction on Au(1 1 1), Pt(1 1 1) and Ir(1 1 1) in alkaline media containing Na and Li cations. <i>Catalysis Today</i> , 2016, 262, 41-47.	2.2	67
31	Surface spectators and their role in relationships between activity and selectivity of the oxygen reduction reaction in acid environments. <i>Electrochemistry Communications</i> , 2015, 60, 30-33.	2.3	25
32	Water as a Promoter and Catalyst for Dioxygen Electrochemistry in Aqueous and Organic Media. <i>ACS Catalysis</i> , 2015, 5, 6600-6607.	5.5	98
33	When Small is Big: The Role of Impurities in Electrocatalysis. <i>Topics in Catalysis</i> , 2015, 58, 1174-1180.	1.3	26
34	Eco-friendly synthesis of bimetallic AuAg nanoparticles. <i>New Journal of Chemistry</i> , 2014, 38, 2865-2873.	1.4	49
35	Unexpected NO Transfer Reaction between <i>trans</i> -[Ru <sup>II</sup> (NO <sup>+</sup> )(NH <sub>3</sub> ) <sub>4</sub> (L)] <sup>3+</sup> and Fe(III) Species: Observation of a Heterobimetallic NO-Bridged Intermediate. <i>Inorganic Chemistry</i> , 2014, 53, 4475-4481.	1.9	7
36	Real-time determination of CO <sub>2</sub> production and estimation of adsorbate coverage on a proton exchange membrane fuel cell under oscillatory operation. <i>Journal of Solid State Electrochemistry</i> , 2013, 17, 1851-1859.	1.2	11

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37	CO tolerance of proton exchange membrane fuel cells with Pt/C and PtMo/C anodes operating at high temperatures: A mass spectrometry investigation. <i>Electrochimica Acta</i> , 2013, 88, 217-224.	2.6	45
38	Origin of Anomalous Activities for Electrocatalysts in Alkaline Electrolytes. <i>Journal of Physical Chemistry C</i> , 2012, 116, 22231-22237.	1.5	71
39	Potential oscillations in a proton exchange membrane fuel cell with a Pd-Pt/C anode. <i>Journal of Power Sources</i> , 2011, 196, 84-89.	4.0	41
40	CO Tolerance of PEMFC Anodes: Mechanisms and Electrode Designs. <i>Electrocatalysis</i> , 2010, 1, 200-212.	1.5	47
41	The CO tolerance pathways on the Pt-Ru electrocatalytic system. <i>Journal of Electroanalytical Chemistry</i> , 2010, 644, 110-116.	1.9	42
42	Electrocatalysis of the hydrogen oxidation in the presence of CO on RhO <sub>2</sub> /C-supported Pt nanoparticles. <i>Electrochimica Acta</i> , 2010, 56, 418-426.	2.6	8
43	PEMFC Oscillatory Behavior on a Pd-Pt/C Electrocatalyst. <i>ECS Transactions</i> , 2010, 33, 1-10.	0.3	2
44	Complex Oscillatory Response of a PEM Fuel Cell Fed with H <sub>2</sub> /CO and Oxygen. <i>Journal of the Electrochemical Society</i> , 2010, 157, B1301.	1.3	43
45	Complex Dynamics in a PEM Fuel Cell. <i>ECS Transactions</i> , 2009, 25, 81-89.	0.3	8
46	Estudo do efeito de tratamentos térmicos em catalisadores de PtRu/C frente à reação de oxidação de hidrogênio na presença de CO. <i>Quimica Nova</i> , 2007, 30, 1256-1260.	0.3	8