Pietro P Lopes

List of Publications by Year
in descending order

46 papers	6,134 citations	172457 29 h-index	206112 48 g-index
50 all docs	50 docs citations	50 times ranked	8994 citing authors

#	Article	IF	Citations
1	Energy and fuels from electrochemical interfaces. Nature Materials, 2017, 16, 57-69.	27.5	1,484
2	Design of active and stable Coâ€“Moâ€“Sx chalcogels as pH-universal catalysts for the hydrogen evolution reaction. Nature Materials, 2016, 15, 197-203.	27.5	825
3	Design principles for hydrogen evolution reaction catalyst materials. Nano Energy, 2016, 29, 29-36.	16.0	629
4	Dynamic stability of active sites in hydr(oxy)oxides for the oxygen evolution reaction. Nature Energy, 2020, 5, 222-230.	39.5	540
5	High-Performance Rh₂P Electrocatalyst for Efficient Water Splitting. Journal of the American Chemical Society, 2017, 139, 5494-5502.	13.7	343
6	Balancing activity, stability and conductivity of nanoporous core-shell iridium/iridium oxide oxygen evolution catalysts. Nature Communications, 2017, 8, 1449.	12.8	250
7	Relationships between Atomic Level Surface Structure and Stability/Activity of Platinum Surface Atoms in Aqueous Environments. ACS Catalysis, 2016, 6, 2536-2544.	11.2	196
8	Dynamically Stable Active Sites from Surface Evolution of Perovskite Materials during the Oxygen Evolution Reaction. Journal of the American Chemical Society, 2021, 143, 2741-2750.	13.7	156
9	Tuning the Reversibility of Mg Anodes via Controlled Surface Passivation by H₂O/Cl^{â€} in Organic Electrolytes. Chemistry of Materials, 2016, 28, 8268-8277.	6.7	147
10	Past, present, and future of leadâ€“acid batteries. Science, 2020, 369, 923-924.	12.6	135
11	Electrocatalytic transformation of HF impurity to H2 and LiF in lithium-ion batteries. Nature Catalysis, 2018, 1, 255-262.	34.4	128
12	Eliminating dissolution of platinum-based electrocatalysts at the atomic scale. Nature Materials, 2020, 19, 1207-1214.	27.5	127
13	Water as a Promoter and Catalyst for Dioxygen Electrochemistry in Aqueous and Organic Media. ACS Catalysis, 2015, 5, 6600-6607.	11.2	98
14	Synthesis and characterization of bulk <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Nd</mml:mi><mml:mrow><mml:mn>1</mml:mn><mml:mathvariant="normal">O</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math> and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Nd</mml:mi><mml:mrow>. Physical Review Materials, 2020, 4, .	2.4	87
15	Dynamics of electrochemical Pt dissolution at atomic and molecular levels. Journal of Electroanalytical Chemistry, 2018, 819, 123-129.	3.8	74
16	Hydrogen evolution reaction on copper: Promoting water dissociation by tuning the surface oxophilicity. Electrochemistry Communications, 2019, 100, 30-33.	4.7	72
17	Origin of Anomalous Activities for Electrocatalysts in Alkaline Electrolytes. Journal of Physical Chemistry C, 2012, 116, 22231-22237.	3.1	71
18	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. Catalysis Today, 2016, 262, 41-47.	4.4	67

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19	Eco-friendly synthesis of bimetallic AuAg nanoparticles. New Journal of Chemistry, 2014, 38, 2865-2873.	2.8	49
20	Exploring the Interface of Skinâ€Layered Titanium Fibers for Electrochemical Water Splitting. Advanced Energy Materials, 2021, 11, 2002926.	19.5	48
21	A percolation theory for designing corrosion-resistant alloys. Nature Materials, 2021, 20, 789-793.	27.5	48
22	CO Tolerance of PEMFC Anodes: Mechanisms and Electrode Designs. Electrocatalysis, 2010, 1, 200-212.	3.0	47
23	CO tolerance of proton exchange membrane fuel cells with Pt/C and PtMo/C anodes operating at high temperatures: A mass spectrometry investigation. Electrochimica Acta, 2013, 88, 217-224.	5.2	45
24	Complex Oscillatory Response of a PEM Fuel Cell Fed with H[sub 2]/CO and Oxygen. Journal of the Electrochemical Society, 2010, 157, B1301.	2.9	43
25	Electrokinetic Analysis of Poorly Conductive Electrocatalytic Materials. ACS Catalysis, 2020, 10, 4990-4996.	11.2	43
26	The CO tolerance pathways on the Ptâ€“Ru electrocatalytic system. Journal of Electroanalytical Chemistry, 2010, 644, 110-116.	3.8	42
27	Potential oscillations in a proton exchange membrane fuel cell with a Pdâ€“Pt/C anode. Journal of Power Sources, 2011, 196, 84-89.	7.8	41
28	Employing the Dynamics of the Electrochemical Interface in Aqueous Zincâ€Ion Battery Cathodes. Advanced Functional Materials, 2021, 31, 2102135.	14.9	34
29	Stability Limits and Defect Dynamics in Ag Nanoparticles Probed by Bragg Coherent Diffractive Imaging. Nano Letters, 2017, 17, 1595-1601.	9.1	29
30	Improved Rate for the Oxygen Reduction Reaction in a Sulfuric Acid Electrolyte using a Pt(111) Surface Modified with Melamine. ACS Applied Materials & Interfaces, 2021, 13, 3369-3376.	8.0	29
31	When Small is Big: The Role of Impurities in Electrocatalysis. Topics in Catalysis, 2015, 58, 1174-1180.	2.8	26
32	Surface spectators and their role in relationships between activity and selectivity of the oxygen reduction reaction in acid environments. Electrochemistry Communications, 2015, 60, 30-33.	4.7	25
33	Superoxide (Electro)Chemistry on Well-Defined Surfaces in Organic Environments. Journal of Physical Chemistry C, 2016, 120, 15909-15914.	3.1	25
34	The role of an interface in stabilizing reaction intermediates for hydrogen evolution in aprotic electrolytes. Chemical Science, 2020, 11, 3914-3922.	7.4	23
35	Role of structural hydroxyl groups in enhancing performance of electrochemically-synthesized bilayer V2O5. Nano Energy, 2018, 53, 449-457.	16.0	21
36	Real-Time Monitoring of Cation Dissolution/Deintercalation Kinetics from Transition-Metal Oxides in Organic Environments. Journal of Physical Chemistry Letters, 2018, 9, 4935-4940.	4.6	15

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37	Real-time determination of CO2 production and estimation of adsorbate coverage on a proton exchange membrane fuel cell under oscillatory operation. Journal of Solid State Electrochemistry, 2013, 17, 1851-1859.	2.5	11
38	Estudo do efeito de tratamentos tÃ©rmicos em catalisadores de PtRu/C frente Ã reaÃ§Ã£o de oxidaÃ§Ã£o de hidrogÃªnio na presenÃ§a de CO. Quimica Nova, 2007, 30, 1256-1260.	0.3	8
39	Complex Dynamics in a PEM Fuel Cell. ECS Transactions, 2009, 25, 81-89.	0.5	8
40	Electrocatalysis of the hydrogen oxidation in the presence of CO on RhO2/C-supported Pt nanoparticles. Electrochimica Acta, 2010, 56, 418-426.	5.2	8
41	Unexpected NO Transfer Reaction between trans-[Ru^{II}(NO⁺)(NH₃)₄(L)]³⁺ and Fe(III) Species: Observation of a Heterobimetallic NO-Bridged Intermediate. Inorganic Chemistry, 2014, 53, 4475-4481.	4.0	7
42	Tuning of catalytic properties for electrooxidation of small organic molecules on Pt-based thin films via controlled thermal treatment. Journal of Catalysis, 2019, 371, 96-105.	6.2	6
43	Active electrochemical interfaces stabilized through self-organized potential oscillations. Electrochemistry Communications, 2020, 121, 106853.	4.7	3
44	PEMFC Oscillatory Behavior on a Pd-Pt/C Electrocatalyst. ECS Transactions, 2010, 33, 1-10.	0.5	2
45	Identical Location STEM analysis on La_{1â^'x}Sr_xCoO₃ Oxygen-Evolution Catalysts. Microscopy and Microanalysis, 2019, 25, 2052-2053.	0.4	1
46	Atomic-resolution STEM Analysis of Nanoparticle During Electrocatalytic Reactions. Microscopy and Microanalysis, 2020, 26, 910-911.	0.4	0