

# Ana C Tavares

## List of Publications by Year in descending order

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88  
papers

2,739  
citations

186209

28  
h-index

189801

50  
g-index

91  
all docs

91  
docs citations

91  
times ranked

4513  
citing authors

#	ARTICLE	IF	CITATIONS
1	Electrochemical impedance immunosensor based on gold nanoparticlesâ€“protein G for the detection of cancer marker epidermal growth factor receptor in human plasma and brain tissue. Biosensors and Bioelectronics, 2013, 50, 143-149.	5.3	161
2	Physicochemical Characterization of Mixed RuO <sub>2</sub> ~SnO <sub>2</sub> Solid Solutions. Chemistry of Materials, 2005, 17, 1570-1579.	3.2	140
3	Oxygen reduction to hydrogen peroxide on Fe <sub>3</sub> O <sub>4</sub> nanoparticles supported on Printex carbon and Graphene. Electrochimica Acta, 2015, 162, 263-270.	2.6	132
4	Selection and Identification of DNA Aptamers against Okadaic Acid for Biosensing Application. Analytical Chemistry, 2013, 85, 11794-11801.	3.2	117
5	Corrosion resistance of monolayer hexagonal boron nitride on copper. Scientific Reports, 2017, 7, 42139.	1.6	112
6	Effect of preparation method on activity and stability of LaMnO and LaCoO catalysts for the flameless combustion of methane. Applied Catalysis B: Environmental, 2005, 55, 133-139.	10.8	107
7	Preparation of PtAu Alloy Colloids by Laser Ablation in Solution and Their Characterization. Journal of Physical Chemistry C, 2012, 116, 13413-13420.	1.5	91
8	In Situ Electrochemical Generation of Hydrogen Peroxide in Alkaline Aqueous Solution by using an Unmodified Gas Diffusion Electrode. ChemElectroChem, 2015, 2, 714-719.	1.7	89
9	Catalytic activity of Fe <sub>3</sub> ~Cu O <sub>4</sub> (0 ~x~ 0.25) nanoparticles for the degradation of Amaranth food dye by heterogeneous electro-Fenton process. Applied Catalysis B: Environmental, 2016, 180, 434-441.	10.8	87
10	Biomassâ€“derived nonprecious metal catalysts for oxygen reduction reaction: The demandâ€“oriented engineering of active sites and structures. , 2020, 2, 561-581.		83
11	Effect of the partial replacement of Ni or Co by Cu on the electrocatalytic activity of the NiCo <sub>2</sub> O <sub>4</sub> spinel oxide. Journal of Electroanalytical Chemistry, 1999, 464, 187-197.	1.9	81
12	Label-free impedimetric immunosensor for ultrasensitive detection of cancer marker Murine double minute 2 in brain tissue. Biosensors and Bioelectronics, 2013, 39, 220-225.	5.3	76
13	A facile synthesis of Fe <sub>3</sub> O <sub>4</sub> nanoparticles/graphene for high-performance lithium/sodium-ion batteries. RSC Advances, 2016, 6, 16624-16633.	1.7	71
14	Nb <sub>2</sub> O <sub>5</sub> nanoparticles supported on reduced graphene oxide sheets as electrocatalyst for the H <sub>2</sub> O <sub>2</sub> electrogeneration. Journal of Catalysis, 2015, 332, 51-61.	3.1	70
15	RRDE experiments on noble-metal and noble-metal-free catalysts: Impact of loading on the activity and selectivity of oxygen reduction reaction in alkaline solution. Applied Catalysis B: Environmental, 2017, 206, 115-126.	10.8	68
16	Ni+RuO <sub>2</sub> co-deposited electrodes for hydrogen evolution. Electrochimica Acta, 2000, 45, 4195-4202.	2.6	66
17	Formic acid electro-oxidation at PtAu alloyed nanoparticles synthesized by pulsed laser ablation in liquids. Journal of Power Sources, 2014, 248, 273-282.	4.0	66
18	Organically functionalized titanium oxide/Nafion composite proton exchange membranes for fuel cells applications. Journal of Power Sources, 2014, 248, 1127-1132.	4.0	65

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19	Dopamine and ascorbic acid electro-oxidation on Au, AuPt and Pt nanoparticles prepared by pulse laser ablation in water. <i>Electrochimica Acta</i> , 2015, 159, 174-183.	2.6	56
20	Selective electroreduction of CO <sub>2</sub> to formate on 3D [100] Pb dendrites with nanometer-sized needle-like tips. <i>Journal of Materials Chemistry A</i> , 2017, 5, 20747-20756.	5.2	56
21	Au nanoparticle decorated graphene nanosheets for electrochemical immunosensing of p53 antibodies for cancer prognosis. <i>Analyst</i> , The, 2016, 141, 2733-2740.	1.7	55
22	Electroreduction of CO <sub>2</sub> to formate on amine modified Pb electrodes. <i>Journal of Materials Chemistry A</i> , 2019, 7, 11272-11281.	5.2	55
23	On the proton conductivity of Nafion®/Faujasite composite membranes for low temperature direct methanol fuel cells. <i>Journal of Power Sources</i> , 2011, 196, 9176-9187.	4.0	54
24	Uncovering the nature of electroactive sites in nano architected dendritic Bi for highly efficient CO <sub>2</sub> electroreduction to formate. <i>Applied Catalysis B: Environmental</i> , 2020, 274, 119031.	10.8	46
25	Electrochemical study of spinel oxide systems with nominal compositions Ni <sup>1-x</sup> Cu <sup>x</sup> Co <sub>2</sub> O <sub>4</sub> and NiCo <sub>2-y</sub> Cu <sub>y</sub> O <sub>4</sub> . <i>Journal of Solid State Electrochemistry</i> , 2001, 5, 57-67.	1.2	45
26	DSC and DVS Investigation of Water Mobility in Nafion/Zeolite Composite Membranes for Fuel Cell Applications. <i>Journal of Physical Chemistry C</i> , 2012, 116, 20820-20829.	1.5	44
27	Electrocatalysis of H <sub>2</sub> evolution by thermally prepared ruthenium oxide. <i>Journal of Electroanalytical Chemistry</i> , 2007, 600, 103-112.	1.9	40
28	Investigation of carbon-supported Pt and PtCo catalysts for oxygen reduction in direct methanol fuel cells. <i>Electrochimica Acta</i> , 2009, 54, 4844-4850.	2.6	40
29	Towards high efficiency air-processed near-infrared responsive photovoltaics: bulk heterojunction solar cells based on PbS/CdS core-shell quantum dots and TiO <sub>2</sub> nanorod arrays. <i>Nanoscale</i> , 2015, 7, 10039-10049.	2.8	38
30	Graphene-Supported Substoichiometric Sodium Tantalate as a Methanol-Tolerant, Non-Noble Metal Catalyst for the Electroreduction of Oxygen. <i>ChemCatChem</i> , 2015, 7, 911-915.	1.8	29
31	Faujasite zeolites as solid electrolyte for low temperature fuel cells. <i>Solid State Ionics</i> , 2011, 194, 53-61.	1.3	25
32	1D/2D Cobalt-Based Nanohybrids as Electrocatalysts for Hydrogen Generation. <i>Advanced Functional Materials</i> , 2020, 30, 1908467.	7.8	25
33	Dose rate effects on the radiation induced oxidation of polyethylene. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2007, 265, 221-226.	0.6	24
34	<i>In Situ</i> Fabrication of Nafion®/Titanate Hybrid Electrolytes for High-Temperature Direct Ethanol Fuel Cell. <i>Journal of Physical Chemistry C</i> , 2013, 117, 16863-16870.	1.5	23
35	High T <sub>g</sub> sulfonated insertion polynorbornene ionomers prepared by catalytic insertion polymerization. <i>Polymer</i> , 2016, 86, 91-97.	1.8	23
36	Propyl sulfonic acid functionalization of faujasite-type zeolites: Effect on water and methanol sorption and on proton conductivity. <i>Microporous and Mesoporous Materials</i> , 2013, 169, 128-136.	2.2	22

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37	Nafion <sup>®</sup> -titanate nanotubes composites prepared by in situ crystallization and casting for direct ethanol fuel cells. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 1859-1867.	3.8	22
38	Graphene oxide/cobalt-based nanohybrid electrodes for robust hydrogen generation. <i>Applied Catalysis B: Environmental</i> , 2019, 245, 167-176.	10.8	21
39	Engineering of a Low-Cost, Highly Active, and Durable Tantalate-Graphene Hybrid Electrocatalyst for Oxygen Reduction. <i>Advanced Energy Materials</i> , 2020, 10, 2000075.	10.2	21
40	Nafion membranes annealed at high temperature and controlled humidity: structure, conductivity, and fuel cell performance. <i>Electrochimica Acta</i> , 2016, 196, 110-117.	2.6	20
41	Probing the influence of graphene oxide sheets size on the performance of label-free electrochemical biosensors. <i>Scientific Reports</i> , 2020, 10, 13612.	1.6	20
42	Zirconia on Reduced Graphene Oxide Sheets: Synergistic Catalyst with High Selectivity for H <sub>2</sub> O <sub>2</sub> Electrogeneration. <i>ChemElectroChem</i> , 2017, 4, 508-513.	1.7	19
43	LaFeO <sub>3</sub> -based nanopowders prepared by a soft-hard templating approach: the effect of silica texture. <i>Journal of Materials Chemistry A</i> , 2014, 2, 8438-8447.	5.2	17
44	La <sub>1-x</sub> A <sub>x</sub> Co <sub>1-y</sub> FeyO <sub>3±δ</sub> (A=Ce, Sr) catalysts for the flameless combustion of methane. <i>Journal of Materials Science</i> , 2006, 41, 4713-4719.	1.7	16
45	Novel copper-based anodes for solid oxide fuel cells with samaria-doped ceria electrolyte. <i>Journal of Power Sources</i> , 2008, 183, 20-25.	4.0	15
46	Investigation of the electrocatalytic activity for ethanol oxidation of Pt nanoparticles modified with small amount (5 wt%) of CeO <sub>2</sub> . <i>Journal of Electroanalytical Chemistry</i> , 2019, 840, 367-375.	1.9	14
47	Oxygen evolution on NiCo <sub>2-x</sub> RhxO <sub>4</sub> spinel system. <i>Electrochimica Acta</i> , 1996, 41, 1953-1959.	2.6	13
48	Copolymers of ethylene and sulfonated norbornene for proton exchange membranes. <i>Journal of Polymer Science Part A</i> , 2013, 51, 2669-2676.	2.5	13
49	Stability of Zn-Ni-TiO <sub>2</sub> and Zn-TiO <sub>2</sub> nanocomposite coatings in near-neutral sulphate solutions. <i>Journal of Nanoparticle Research</i> , 2012, 14, 1.	0.8	12
50	AC impedance spectroscopy investigation of carbon supported Pt <sub>3</sub> Co and Pt cathode catalysts in direct methanol fuel cell. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 8026-8033.	3.8	11
51	Understanding the Improved Activity of Dendritic Sn <sub>1</sub> Pb <sub>3</sub> Alloy for the CO <sub>2</sub> Electrochemical Reduction: A Computational-Experimental Investigation. <i>ACS Catalysis</i> , 2020, 10, 10726-10734.	5.5	11
52	SAXS signature of the lamellar ordering of ionic domains of perfluorinated sulfonic-acid ionomers by electric and magnetic field-assisted casting. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 13764-13779.	1.3	11
53	Electrochemical characterization of graphene-type materials obtained by electrochemical exfoliation of graphite. <i>Journal of Electroanalytical Chemistry</i> , 2021, 887, 115084.	1.9	10
54	Zn-TiO <sub>2</sub> and ZnNi-TiO <sub>2</sub> ; Nanocomposite Coatings: Corrosion Behaviour. <i>Materials Science Forum</i> , 0, 636-637, 1079-1083.	0.3	9

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55	Facile synthesis of Zr- and Ta-based catalysts for the oxygen reduction reaction. Chinese Journal of Catalysis, 2015, 36, 484-489.	6.9	8
56	Sampled current voltammetry for kinetic studies on materials unsuitable for rotating discs or microelectrodes: Application to the oxygen reduction reaction in acidic medium. Electrochimica Acta, 2020, 362, 136946.	2.6	8
57	Interplay between $\lambda$ -relaxation and morphology transition of perfluorosulfonate ionomer membranes. Journal of Power Sources, 2015, 293, 859-867.	4.0	7
58	Perovskite-Type Catalysts Prepared by Nanocasting: Effect of Metal Silicates on the Electrocatalytic Activity toward Oxygen Evolution and Reduction Reactions. ACS Applied Energy Materials, 2018, 1, 2565-2575.	2.5	7
59	Layered tetratitanate intercalating sulfanilic acid for organic/inorganic proton conductors. Solid State Ionics, 2012, 227, 73-79.	1.3	6
60	PtRu/C-LaNiO <sub>3</sub> Composite Electrodes for Electrocatalysis. Journal of the Electrochemical Society, 2013, 160, F1138-F1142.	1.3	6
61	Effect of Graphene Oxide Sheet Size on the Response of a Label-free Voltammetric Immunosensor for Cancer Marker VEGF. Electroanalysis, 2020, 32, 2205-2212.	1.5	6
62	Progress in the electrochemical reduction of CO <sub>2</sub> on hierarchical dendritic metal electrodes. Current Opinion in Electrochemistry, 2020, 23, 145-153.	2.5	6
63	Electrochemical behaviour of NiCo <sub>2</sub> · xRh <sub>x</sub> O <sub>4</sub> spinel system. Electrochimica Acta, 1994, 39, 1571-1578.	2.6	5
64	Graphene oxide/reduced graphene oxide films as protective barriers on lead against differential aeration corrosion induced by water drops. Nanoscale Advances, 2020, 2, 5412-5420.	2.2	5
65	Composite Polymer Electrolytes for Fuel Cell Applications: Filler-induced Effect on Water Sorption and Transport Properties. ChemPhysChem, 2013, 14, 3814-3821.	1.0	4
66	Oxygen evolution on BaSn <sub>1-x</sub> Sb <sub>x</sub> O <sub>3</sub> (0 < x ≤ 0.15) perovskite electrodes. Journal of the Chemical Society, Faraday Transactions, 1992, 88, 2517-2521.	1.7	3
67	Simultaneous Determination of the Permeability of a Nafion Membrane to Formic Acid and Water. Fuel Cells, 2013, 13, 1024-1031.	1.5	3
68	Effect of monobutylether ethylene glycol on Mg/Al layered double hydroxide: a physicochemical and conductivity study. Journal of Nanoparticle Research, 2013, 15, 1.	0.8	2
69	3D-Percolating Model of Hydrous Ruthenium Oxide Dispersed in an Inert Polymer Matrix: An Impedance Spectroscopy Study. Journal of the Electrochemical Society, 2012, 159, F507-F513.	1.3	1
70	10. Solid polymer proton conducting electrolytes for fuel cells. , 2014, , 207-240.		1
71	Innovative approach for the synthesis of graphene/MnO <sub>2</sub> nanocomposites and their electrochemical behavior. Electrochemical Science Advances, 2022, 2, 2100029.	1.2	1
72	A Computational-Experimental Investigation of the Mechanisms Responsible for the Enhanced CO <sub>2</sub> Electrochemical Reduction of Dendritic Sn <sub>1</sub> Pb <sub>3</sub> Alloy. ECS Meeting Abstracts, 2020, MA2020-01, 2630-2630.	0.0	1

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73	Steady-state voltammetric characterization and simulation-aided study of the mass transfer enhancement at conical W/WO <sub>2</sub> ultramicroelectrodes. <i>Electrochimica Acta</i> , 2022, 402, 139524.	2.6	1
74	Au(001) Thin Films: Impact of Structure and Mosaicity on the Oxygen Reduction Reaction in Alkaline Medium. <i>ACS Catalysis</i> , 2022, 12, 1664-1676.	5.5	1
75	Electrodeposition of Polypyrrole-Biotin Films by Square Wave Cyclic Voltammetry. <i>ECS Transactions</i> , 2010, 28, 35-41.	0.3	0
76	SnO <sub>2</sub> -Ionomer Composites: A Comparative Study of the Transport Properties. <i>ECS Transactions</i> , 2010, 28, 133-139.	0.3	0
77	Functionalized Metal Oxides for PEMFC Applications. <i>ECS Transactions</i> , 2011, 41, 2297-2303.	0.3	0
78	Transmission line model of mixed ionic and electronic conductor: the case of hydrous ruthenium oxide. <i>Journal of Solid State Electrochemistry</i> , 2014, 18, 2913-2920.	1.2	0
79	Editorial: Chemistry, a Sustainable Bridge From Waste to Materials for Energy and Environment. <i>Frontiers in Chemistry</i> , 2020, 8, 641129.	1.8	0
80	(Invited) Oxygen Evolution and Reduction on La <sub>0.5</sub> Sr <sub>0.5</sub> Co <sub>0.8</sub> Fe <sub>0.2</sub> O <sub>3-<math>\delta</math></sub> Perovskites with Tunable Structural Features. <i>ECS Meeting Abstracts</i> , 2019, , .	0.0	0
81	The Role of Activation Process on Perovskites-Type Oxides As Electrocatalysts for Oxygen Evolution Reaction. <i>ECS Meeting Abstracts</i> , 2020, MA2020-01, 1566-1566.	0.0	0
82	Regeneration of Reactive Pd Surfaces in Au-Pd Nanoparticles after Electrochemical Aging. <i>ECS Meeting Abstracts</i> , 2020, MA2020-01, 2665-2665.	0.0	0
83	CO <sub>2</sub> Reduction to Formate on Amine Modified Pb Electrodes. <i>ECS Meeting Abstracts</i> , 2020, MA2020-01, 1519-1519.	0.0	0
84	Electrochemistry at Tungsten Conical Sharp Tip Electrodes. <i>ECS Meeting Abstracts</i> , 2020, MA2020-01, 2845-2845.	0.0	0
85	Electrochemical Characterization of Graphene-like Materials Obtained By Electrochemical Exfoliation of Graphite. <i>ECS Meeting Abstracts</i> , 2020, MA2020-01, 813-813.	0.0	0
86	Domain Size Dependence of the Oxygen Reduction Reaction on (100)-Oriented Au Thin Films. <i>ECS Meeting Abstracts</i> , 2020, MA2020-01, 2670-2670.	0.0	0
87	Niobium Pentoxide Nanoparticles and Their Self-Assembled in Building Blocks for Gas Sensors. <i>ECS Meeting Abstracts</i> , 2020, MA2020-01, 2038-2038.	0.0	0
88	Investigating the in-Situ Doping Effect of Niobium Pentoxide Nanostructures on Their Electronic Surface Properties. <i>ECS Meeting Abstracts</i> , 2020, MA2020-01, 1346-1346.	0.0	0