Jesus Palma

List of Publications by Year in descending order

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76	4,075	125106	134545
papers	citations	35 h-index	62 g-index

78	78	78	5890
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A new aqueous all-organic flow battery with high cell voltage in acidic electrolytes. Applied Energy, 2021, 282, 116058.	5.1	12
2	High-performance all-organic aqueous batteries based on a poly(imide) anode and poly(catechol) cathode. Journal of Materials Chemistry A, 2021, 9, 505-514.	5.2	35
3	Performance analysis of a capacitive deionization stack for brackish water desalination. Desalination, 2021, 501, 114912.	4.0	24
4	Using redox electrolytes to extend the charge storage capacity in an aqueous hybrid ion battery. Chemical Engineering Journal, 2021, 411, 128416.	6.6	10
5	An Ultrahigh Performance Zincâ€Organic Battery using Poly(catechol) Cathode in Zn(TFSI)₂â€Based Concentrated Aqueous Electrolytes. Advanced Energy Materials, 2021, 11, 2100939.	10.2	93
6	Low-energy consumption, free-form capacitive deionization through nanostructured networks. Carbon, 2021, 176, 390-399.	5.4	15
7	Macromolecular Engineering of Poly(catechol) Cathodes towards High-Performance Aqueous Zinc-Polymer Batteries. Polymers, 2021, 13, 1673.	2.0	11
8	Strategies to boost capacitive deionization performance of 3D electrodes. Separation and Purification Technology, 2021, 273, 118977.	3.9	9
9	Mitigating capacity fading in aqueous organic redox flow batteries through a simple electrochemical charge balancing protocol. Journal of Power Sources, 2021, 512, 230516.	4.0	17
10	New Anthraquinoneâ€Based Conjugated Microporous Polymer Cathode with Ultrahigh Specific Surface Area for Highâ€Performance Lithiumâ€Ion Batteries. Advanced Functional Materials, 2020, 30, 1908074.	7.8	91
11	Understanding capacitive deionization performance by comparing its electrical response with an electrochemical supercapacitor: Strategies to boost round-trip efficiency. Electrochimica Acta, 2020, 330, 135216.	2.6	9
12	Graphite felt 3D framework composites as an easy to scale capacitive deionization electrode for brackish water desalination. Chemical Engineering Journal, 2020, 392, 123698.	6.6	40
13	Critical aspects of membrane-free aqueous battery based on two immiscible neutral electrolytes. Energy Storage Materials, 2020, 26, 400-407.	9.5	28
14	The injectable battery. A conceptually new strategy in pursue of a sustainable and circular battery model. Journal of Power Sources, 2020, 480, 228839.	4.0	7
15	Electrode Engineering of Redox-Active Conjugated Microporous Polymers for Ultra-High Areal Capacity Organic Batteries. ACS Energy Letters, 2020, 5, 2945-2953.	8.8	59
16	Revisiting the cycling stability of ferrocyanide in alkaline media for redox flow batteries. Journal of Power Sources, 2020, 471, 228453.	4.0	38
17	Widely commercial carbonaceous materials as cathode for Al-ion batteries. Carbon, 2020, 167, 475-484.	5.4	18
18	Al-Ion Battery Based on Semisolid Electrodes for Higher Specific Energy and Lower Cost. ACS Applied Energy Materials, 2020, 3, 2285-2289.	2.5	11

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19	Hierarchical Co₃O₄ nanorods anchored on nitrogen doped reduced graphene oxide: a highly efficient bifunctional electrocatalyst for rechargeable Znâ€“air batteries. Catalysis Science and Technology, 2020, 10, 1444-1457.	2.1	13
20	Operational Experience of 5 kW/5 kWh All-Vanadium Flow Batteries in Photovoltaic Grid Applications. Batteries, 2019, 5, 52.	2.1	20
21	Mediated Alkaline Flow Batteries: From Fundamentals to Application. ACS Applied Energy Materials, 2019, 2, 8328-8336.	2.5	30
22	Insights into charge storage and electroactivation of mixed metal sulfides in alkaline media: NiCoMn ternary metal sulfide nano-needles forming coreâ€“shell structures for hybrid energy storage. Journal of Materials Chemistry A, 2019, 7, 20414-20424.	5.2	45
23	A critical perspective on rechargeable Al-ion battery technology. Dalton Transactions, 2019, 48, 9906-9911.	1.6	42
24	Unexpected Contribution of Current Collector to the Cost of Rechargeable Alâ€ion Batteries. ChemElectroChem, 2019, 6, 2766-2770.	1.7	23
25	Anchored NiCoMnS4 nanoparticles on N-doped rGO: High-performance bifunctional electrocatalysts for rechargeable Zn-Air batteries. Energy Storage Materials, 2019, 20, 216-224.	9.5	42
26	Bimetal zeolitic imidazolate framework (ZIF-9) derived nitrogen-doped porous carbon as efficient oxygen electrocatalysts for rechargeable Zn-air batteries. Journal of Power Sources, 2019, 427, 299-308.	4.0	29
27	Polymers Bearing Catechol Pendants as Universal Hosts for Aqueous Rechargeable H⁺, Li-Ion, and Post-Li-ion (Mono-, Di-, and Trivalent) Batteries. ACS Applied Energy Materials, 2019, 2, 3035-3041.	2.5	55
28	Synthesis and application of NiMnO3-rGO nanocomposites as electrode materials for hybrid energy storage devices. Applied Surface Science, 2018, 460, 74-83.	3.1	30
29	Insights into the energy storage mechanism of hybrid supercapacitors with redox electrolytes by Electrochemical Impedance Spectroscopy. Electrochimica Acta, 2018, 263, 110-117.	2.6	73
30	Investigation of different anode materials for aluminium rechargeable batteries. Journal of Power Sources, 2018, 374, 77-83.	4.0	36
31	Interconnected metal oxide CNT fibre hybrid networks for current collector-free asymmetric capacitive deionization. Journal of Materials Chemistry A, 2018, 6, 10898-10908.	5.2	53
32	Maximizing Volumetric Removal Capacity in Capacitive Deionization by Adjusting Electrode Thickness and Charging Mode. Journal of the Electrochemical Society, 2018, 165, E294-E302.	1.3	22
33	Porous NiCoMn ternary metal oxide/graphene nanocomposites for high performance hybrid energy storage devices. Electrochimica Acta, 2018, 279, 44-56.	2.6	47
34	Pioneering Use of Ionic Liquidâ€Based Aqueous Biphasic Systems as Membraneâ€Free Batteries. Advanced Science, 2018, 5, 1800576.	5.6	34
35	Doping of Self-Standing CNT Fibers: Promising Flexible Air-Cathodes for High-Energy-Density Structural Znâ€“Air Batteries. ACS Applied Energy Materials, 2018, 1, 2434-2439.	2.5	31
36	Capacitative Deionization: A Promising Electrochemical Water Treatment Technology Employing Novel New Electrodes, Exciting and Clever Reactor Designs and a Potential Plethora of Applications Far Beyond Desalination. Will It Succeed?. ECS Meeting Abstracts, 2018, , .	0.0	0

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37	Current Collector-Free Asymmetric Capacitive Deionization System for Energy-Efficient Brackish Water Desalination. ECS Meeting Abstracts, 2018, , .	0.0	0
38	Anchored Fe₃O₄ Nanoparticles on rGO Nanosheets as Highâ€Power Negative Electrodes for Aqueous Batteries. ChemElectroChem, 2017, 4, 1295-1305.	1.7	19
39	Cyclohexanedione as the negative electrode reaction for aqueous organic redox flow batteries. Applied Energy, 2017, 197, 318-326.	5.1	35
40	Largeâ€Area, Allâ€Solid, and Flexible Electric Double Layer Capacitors Based on CNT Fiber Electrodes and Polymer Electrolytes. Advanced Materials Technologies, 2017, 2, 1600290.	3.0	66
41	Functional porous carbon nanospheres from sustainable precursors for high performance supercapacitors. Journal of Materials Chemistry A, 2017, 5, 16263-16272.	5.2	53
42	Membrane-less hybrid flow battery based on low-cost elements. Journal of Power Sources, 2017, 341, 36-45.	4.0	40
43	Frontispiece: A Membraneâ€Free Redox Flow Battery with Two Immiscible Redox Electrolytes. Angewandte Chemie - International Edition, 2017, 56, .	7.2	0
44	Manganese dioxide decoration of macroscopic carbon nanotube fibers: From high-performance liquid-based to all-solid-state supercapacitors. Journal of Power Sources, 2017, 372, 64-73.	4.0	53
45	A Membraneâ€Free Redox Flow Battery with Two Immiscible Redox Electrolytes. Angewandte Chemie - International Edition, 2017, 56, 12460-12465.	7.2	69
46	NiCoMnO4 nanoparticles on N-doped graphene: Highly efficient bifunctional electrocatalyst for oxygen reduction/evolution reactions. Applied Catalysis B: Environmental, 2017, 201, 241-252.	10.8	194
47	New Operational Modes to Increase Energy Efficiency in Capacitive Deionization Systems. Environmental Science & Technology, 2016, 50, 6053-6060.	4.6	64
48	Membrane-less organicâ€“inorganic aqueous flow batteries with improved cell potential. Chemical Communications, 2016, 52, 14270-14273.	2.2	37
49	On the challenge of developing wastewater treatment processes: capacitive deionization. Desalination and Water Treatment, 2016, 57, 2315-2324.	1.0	9
50	Macroscopic fibres of CNTs as electrodes for multifunctional electric double layer capacitors: from quantum capacitance to device performance. Nanoscale, 2016, 8, 3620-3628.	2.8	75
51	Performance of solid state supercapacitors based on polymer electrolytes containing different ionic liquids. Journal of Power Sources, 2016, 326, 560-568.	4.0	96
52	Evaluation of electrode materials for all-copper hybrid flow batteries. Journal of Power Sources, 2016, 310, 1-11.	4.0	36
53	Facile synthesis of NiCoMnO₄ nanoparticles as novel electrode materials for high-performance asymmetric energy storage devices. RSC Advances, 2016, 6, 28970-28980.	1.7	41
54	High performance hybrid supercapacitors by using para-Benzoquinone ionic liquid redox electrolyte. Journal of Power Sources, 2016, 306, 711-717.	4.0	81

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55	Carbide derived carbon electrode with natural graphite addition in magnesium electrolyte based cell for supercapacitor enhancements. Journal of Energy Chemistry, 2015, 24, 264-270.	7.1	12
56	All-solid state supercapacitors operating at 3.5ÂV by using ionic liquid based polymer electrolytes. Journal of Power Sources, 2015, 279, 472-480.	4.0	155
57	Nanostructured porous wires of iron cobaltite: novel positive electrode for high-performance hybrid energy storage devices. Journal of Materials Chemistry A, 2015, 3, 16849-16859.	5.2	100
58	Study and characterization of positive electrolytes for application in the aqueous all-copper redox flow battery. Journal of Power Sources, 2015, 278, 175-182.	4.0	19
59	A 3-V electrochemical capacitor study based on a magnesium polymer gel electrolyte by three different carbon materials. Journal of Solid State Electrochemistry, 2014, 18, 2903-2911.	1.2	16
60	An electrochemical cell study on polyvinylpyrrolidine aqueous gel with glycol addition for capacitor applications. Electrochimica Acta, 2014, 135, 181-186.	2.6	7
61	Correlation between photoelectrochemical behaviour and photoelectrocatalytic activity and scaling-up of P25-TiO2 electrodes. Electrochimica Acta, 2014, 130, 261-270.	2.6	40
62	An analysis of ethylene glycol-aqueous based electrolyte system for supercapacitor applications. Journal of Power Sources, 2014, 248, 370-377.	4.0	41
63	An activated carbon supercapacitor analysis by using a gel electrolyte of sodium salt-polyethylene oxide in an organic mixture solvent. Journal of Solid State Electrochemistry, 2014, 18, 2217-2223.	1.2	31
64	Description and performance of a novel aqueous all-copper redox flow battery. Journal of Power Sources, 2014, 268, 121-128.	4.0	58
65	Optimizing the Energy Efficiency of Capacitive Deionization Reactors Working under Real-World Conditions. Environmental Science & Technology, 2013, 47, 11866-11872.	4.6	85
66	The effect of chloride ion complexation on reversibility and redox potential of the Cu(II)/Cu(I) couple for use in redox flow batteries. Journal of Power Sources, 2013, 224, 278-284.	4.0	29
67	Improving Performance of Electric Double Layer Capacitors with a Mixture of Ionic Liquid and Acetonitrile as the Electrolyte by Using Mass-Balancing Carbon Electrodes. Journal of the Electrochemical Society, 2013, 160, A2064-A2069.	1.3	33
68	New testing procedures of a capacitive deionization reactor. Physical Chemistry Chemical Physics, 2013, 15, 7648.	1.3	57
69	Photoelectrocatalytic study and scaling up of titanium dioxide electrodes for wastewater treatment. Water Science and Technology, 2013, 68, 999-1003.	1.2	7
70	Insights into the influence of pore size distribution and surface functionalities in the behaviour of carbon supercapacitors. Electrochimica Acta, 2012, 86, 241-247.	2.6	57
71	Role of textural properties and surface functionalities of selected carbons on the electrochemical behaviour of ionic liquid based-supercapacitors. RSC Advances, 2012, 2, 8439.	1.7	31
72	Surface modification of metal oxide nanocrystals for improved supercapacitors. Energy and Environmental Science, 2012, 5, 7555.	15.6	33

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73	Co8-MOF-5 as electrode for supercapacitors. Materials Letters, 2012, 68, 126-128.	1.3	312
74	Capacitive deionization as an electrochemical means of saving energy and delivering clean water. Comparison to present desalination practices: Will it compete?. Electrochimica Acta, 2010, 55, 3845-3856.	2.6	815
75	The Bioshale Project: Search for a Sustainable Way of Exploiting Black Shale Ores Using Biotechnology. Advanced Materials Research, 2007, 20-21, 42-45.	0.3	3
76	Effect of the substituents on the conformational behavior of five-membered rings: Application to the cis- and trans-2,5-dimethoxytetrahydrofuran. Journal of Computational Chemistry, 1988, 9, 189-199.	1.5	8