Alessandra D'epifanio

List of Publications by Year
in descending order

125 papers	5,939 citations	81900 39 h-index	74163 75 g-index
125 all docs	125 docs citations	125 times ranked	6834 citing authors

#	Article	IF	Citations
1	A Novel Concept for the Synthesis of an Improved LiFePO[sub 4] Lithium Battery Cathode. Electrochemical and Solid-State Letters, 2002, 5, A47.	2.2	549
2	High proton conduction in grain-boundary-free yttrium-doped barium zirconate films grown by pulsed laser deposition. Nature Materials, 2010, 9, 846-852.	27.5	472
3	Tailoring the chemical stability of Ba(Ce0.8â^'xZrx)Y0.2O3â^'Î´ protonic conductors for Intermediate Temperature Solid Oxide Fuel Cells (IT-SOFCs). Solid State Ionics, 2008, 179, 558-564.	2.7	454
4	Perovskite solar cells and large area modules (100Âcm 2) based on an air flow-assisted PbI 2 blade coating deposition process. Journal of Power Sources, 2015, 277, 286-291.	7.8	332
5	Flexible Perovskite Photovoltaic Modules and Solar Cells Based on Atomic Layer Deposited Compact Layers and UVâ€irradiated TiO₂ Scaffolds on Plastic Substrates. Advanced Energy Materials, 2015, 5, 1401808.	19.5	241
6	Nafionâ€“TiO2 hybrid membranes for medium temperature polymer electrolyte fuel cells (PEFCs). Journal of Power Sources, 2005, 152, 16-21.	7.8	183
7	High efficiency CH3NH3PbI(3â^'x)Clx perovskite solar cells with poly(3-hexylthiophene) hole transport layer. Journal of Power Sources, 2014, 251, 152-156.	7.8	179
8	Vertical TiO₂ Nanorods as a Medium for Stable and High-Efficiency Perovskite Solar Modules. ACS Nano, 2015, 9, 8420-8429.	14.6	174
9	Solid-state solar modules based on mesoscopic organometal halide perovskite: a route towards the up-scaling process. Physical Chemistry Chemical Physics, 2014, 16, 3918.	2.8	158
10	An electrochemical impedance spectroscopic study of the transport properties of LiNi0.75Co0.25O2. Electrochemistry Communications, 1999, 1, 605-608.	4.7	113
11	High efficiency photovoltaic module based on mesoscopic organometal halide perovskite. Progress in Photovoltaics: Research and Applications, 2016, 24, 436-445.	8.1	112
12	Composite Nafion/Sulfated Zirconia Membranes: Effect of the Filler Surface Properties on Proton Transport Characteristics. Chemistry of Materials, 2010, 22, 813-821.	6.7	103
13	Iron/Polyindole-based Electrocatalysts to Enhance Oxygen Reduction in Microbial Fuel Cells. Electrochimica Acta, 2016, 190, 388-395.	5.2	101
14	Design and fabrication of a chemically-stable proton conductor bilayer electrolyte for intermediate temperature solid oxide fuel cells (IT-SOFCs). Energy and Environmental Science, 2008, 1, 355.	30.8	98
15	Facile synthesis of graphene-phthalocyanine composites as oxygen reduction electrocatalysts in microbial fuel cells. Applied Catalysis B: Environmental, 2018, 237, 699-707.	20.2	89
16	Design of BaZr_{0.8}Y_{0.2}O_{3â€“Î´} Protonic Conductor to Improve the Electrochemical Performance in Intermediate Temperature Solid Oxide Fuel Cells (ITâ€SOFCs). Fuel Cells, 2008, 8, 69-76.	2.4	88
17	Using olive mill wastewater to improve performance in producing electricity from domestic wastewater by using single-chamber microbial fuel cell. Bioresource Technology, 2013, 147, 246-253.	9.6	79
18	Titania Nanosheets (TNS)/Sulfonated Poly Ether Ether Ketone (SPEEK) Nanocomposite Proton Exchange Membranes for Fuel Cells. Chemistry of Materials, 2010, 22, 1126-1133.	6.7	75

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19	Graphene oxide nanoplatforms to enhance catalytic performance of iron phthalocyanine for oxygen reduction reaction in bioelectrochemical systems. Journal of Power Sources, 2017, 356, 381-388.	7.8	75
20	TCO-free flexible organo metal trihalide perovskite planar-heterojunction solar cells. Solar Energy Materials and Solar Cells, 2015, 140, 150-157.	6.2	72
21	A covalent organic/inorganic hybrid proton exchange polymeric membrane: synthesis and characterization. Polymer, 2005, 46, 1754-1758.	3.8	70
22	Sulfonated polyether ether ketone and hydrated tin oxide proton conducting composites for direct methanol fuel cell applications. Journal of Power Sources, 2008, 178, 554-560.	7.8	67
23	Design of Iron(II) Phthalocyanineâ€Derived Oxygen Reduction Electrocatalysts for Highâ€Powerâ€Density Microbial Fuel Cells. ChemSusChem, 2017, 10, 3243-3251.	6.8	67
24	Organically functionalized titanium oxide/Nafion composite proton exchange membranes for fuel cells applications. Journal of Power Sources, 2014, 248, 1127-1132.	7.8	65
25	MnOx-based electrocatalysts for enhanced oxygen reduction in microbial fuel cell air cathodes. Journal of Power Sources, 2018, 390, 45-53.	7.8	64
26	Nano-structured perovskite oxide electrodes for planar electrochemical sensors using tape casted YSZ layers. Journal of the European Ceramic Society, 2004, 24, 1187-1190.	5.7	63
27	Iron chelates as low-cost and effective electrocatalyst for oxygen reduction reaction in microbial fuel cells. International Journal of Hydrogen Energy, 2014, 39, 6462-6469.	7.1	61
28	Characterization of sulfated-zirconia/NafionÂ® composite membranes for proton exchange membrane fuel cells. Journal of Power Sources, 2012, 198, 66-75.	7.8	58
29	Electricity generation using white and red wine lees in air cathode microbial fuel cells. Journal of Power Sources, 2015, 274, 393-399.	7.8	58
30	SPEEK/PPSU-based organicâ€“inorganic membranes: proton conducting electrolytes in anhydrous and wet environments. Journal of Membrane Science, 2006, 279, 186-191.	8.2	56
31	Metal-free activated biochar as an oxygen reduction reaction catalyst in single chamber microbial fuel cells. Journal of Power Sources, 2020, 462, 228183.	7.8	56
32	La0.8Sr0.2Fe0.8Cu0.2O3â^' as â€œcobalt-freeâ€•cathode for La0.8Sr0.2Ga0.8Mg0.2O3â^' electrolyte. Journal of Power Sources, 2014, 271, 187-194.	7.8	52
33	Hybrid materials for polymer electrolyte membrane fuel cells: Water uptake, mechanical and transport properties. Journal of Membrane Science, 2007, 304, 76-81.	8.2	51
34	Ironâ€“nitrogen-functionalized carbon as efficient oxygen reduction reaction electrocatalyst in microbial fuel cells. International Journal of Hydrogen Energy, 2016, 41, 19637-19644.	7.1	47
35	Carbonâ€Supported Zirconium Oxide as a Cathode for Microbial Fuel Cell Applications. ChemPlusChem, 2016, 81, 80-85.	2.8	47
36	Carbon-supported Fe/Mn-based perovskite-type oxides boost oxygen reduction in bioelectrochemical systems. Carbon, 2019, 145, 716-724.	10.3	47

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37	Sulfonated Polyether Ether Ketone-Based Composite Membranes Doped with a Tungsten-Based Inorganic Proton Conductor for Fuel Cell Applications. Journal of the Electrochemical Society, 2006, 153, A463.	2.9	44
38	DSC and DVS Investigation of Water Mobility in Nafion/Zeolite Composite Membranes for Fuel Cell Applications. Journal of Physical Chemistry C, 2012, 116, 20820-20829.	3.1	44
39	Ruthenium Oxide-Added Quartz Iron Phosphate as a New Intercalation Electrode in Rechargeable Lithium Cells. Journal of the Electrochemical Society, 2003, 150, A576.	2.9	39
40	Electrochemical performance of spin coated dense BaZr0.80Y0.16Zn0.04O3-Î´ membranes. Journal of Power Sources, 2012, 220, 280-285.	7.8	39
41	Effect of filler surface functionalization on the performance of Nafion/Titanium oxide composite membranes. Electrochimica Acta, 2014, 147, 418-425.	5.2	39
42	Metallic-lithium, LiFePO₄-based polymer battery using PEOâ€“ZrO₂nanocomposite polymer electrolyte. Journal of Applied Electrochemistry, 2004, 34, 403-408.	2.9	37
43	Characterization of phospho-olivines as materials for Li-ion cell cathodes. Ionics, 2002, 8, 17-26.	2.4	36
44	Electrophoretic deposition of dense BaCe0.9Y0.1O3â^'x electrolyte thick-films on Ni-based anodes for intermediate temperature solid oxide fuel cells. Journal of Power Sources, 2009, 190, 417-422.	7.8	36
45	SPPSU-based hybrid proton conducting polymeric electrolytes for intermediate temperature PEMFCs. Journal of Power Sources, 2007, 167, 79-83.	7.8	34
46	Power generation using a low-cost sulfated zirconium oxide based cathode in single chamber microbial fuel cells. Journal of Alloys and Compounds, 2017, 693, 170-176.	5.5	34
47	Platinum Group Metal-Free Catalysts for Oxygen Reduction Reaction: Applications in Microbial Fuel Cells. Catalysts, 2020, 10, 475.	3.5	34
48	Development of Nafion/Tin Oxide Composite MEA for DMFC Applications. Fuel Cells, 2010, 10, 790-797.	2.4	33
49	Structural analysis, phase stability and electrochemical characterization of Nb doped BaCe0.9Y0.1O3â^'x electrolyte for IT-SOFCs. Journal of Power Sources, 2012, 199, 201-206.	7.8	33
50	High Voltage Lithium Polymer Cells Using a PAN-Based Composite Electrolyte. Journal of the Electrochemical Society, 2002, 149, A414.	2.9	32
51	Advanced electrolyte and electrode materials for lithium polymer batteries. Journal of Power Sources, 2003, 119-121, 399-402.	7.8	32
52	Communicationâ€"Sulfonated Poly (ether ether ketone) as Cation Exchange Membrane for Alkaline Redox Flow Batteries. Journal of the Electrochemical Society, 2018, 165, A1137-A1139.	2.9	32
53	PEO based polymer electrolyte lithium-ion battery. Journal of the European Ceramic Society, 2004, 24, 1385-1387.	5.7	30
54	Enhancement of proton mobility and mitigation of methanol crossover in sPEEK fuel cells by an organically modified titania nanofiller. Journal of Solid State Electrochemistry, 2016, 20, 1585-1598.	2.5	30

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55	Oxygen Reduction Reaction Electrocatalysts Derived from Iron Salt and Benzimidazole and Aminobenzimidazole Precursors and Their Application in Microbial Fuel Cell Cathodes. ACS Applied Energy Materials, 2018, 1, 5755-5765.	5.1	29
56	Iron(II) phthalocyanine (FePc) over carbon support for oxygen reduction reaction electrocatalysts operating in alkaline electrolyte. Journal of Solid State Electrochemistry, 2021, 25, 93-104.	2.5	29
57	Electrocatalytic CO2 reduction on nanostructured metal-based materials: Challenges and constraints for a sustainable pathway to decarbonization. Journal of CO2 Utilization, 2021, 50, 101579.	6.8	29
58	Thermal, electrochemical and structural properties of stabilized LiNiyCo1-y-zMzO2 lithium-ion cathode material prepared by a chemical route. Physical Chemistry Chemical Physics, 2001, 3, 4399-4403.	2.8	28
59	New concepts for the development of lithium and proton conducting membranes. Electrochimica Acta, 2003, 48, 2009-2014.	5.2	27
60	Lithium and proton conducting gel-type membranes. Journal of Power Sources, 2004, 127, 53-57.	7.8	26
61	Anode Supported Protonic Solid Oxide Fuel Cells Fabricated Using Electrophoretic Deposition. Fuel Cells, 2011, 11, 165-171.	2.4	26
62	Highly ion selective hydrocarbon-based membranes containing sulfonated hypercrosslinked polystyrene nanoparticles for vanadium redox flow batteries. Journal of Membrane Science, 2018, 563, 552-560.	8.2	26
63	Ormosil/Sulfonated Polyetheretherketone-Based Hybrid Composite Proton Conducting Membranes. Journal of the Electrochemical Society, 2006, 153, A1226.	2.9	23
64	Poly(phenylene sulfide sulfone) based membranes with improved stability for vanadium redox flow batteries. Journal of Materials Chemistry A, 2017, 5, 18845-18853.	10.3	23
65	Effect of a Proton Conducting Filler on the Physicoâ€Chemical Properties of SPEEKâ€Based Membranes. Fuel Cells, 2009, 9, 372-380.	2.4	22
66	Effect of Mg2+Doping on the Structural, Thermal, and Electrochemical Properties of LiNi0.8Co0.16Mg0.04O2. Chemistry of Materials, 2004, 16, 3559-3564.	6.7	20
67	Composite Ormosil/Nafion Membranes as Electrolytes for Direct Methanol Fuel Cells. Journal of the Electrochemical Society, 2007, 154, B1148.	2.9	19
68	Effect of Active Site Poisoning on Ironâ^'Nitrogenâ^'Carbon Platinumâ€Groupâ€Metalâ€Free Oxygen Reduction Reaction Catalysts Operating in Neutral Media: A Rotating Disk Electrode Study. ChemElectroChem, 2020, 7, 3044-3055.	3.4	19
69	Proton Conducting Hybrid Membranes Based on Aromatic Polymers Blends for Direct Methanol Fuel Cell Applications. Fuel Cells, 2009, 9, 387-393.	2.4	17
70	A novel single chamber solid oxide fuel cell based on chemically stable thin films of Y-doped BaZrO3 proton conducting electrolyte. Energy and Environmental Science, 2010, 3, 618.	30.8	16
71	Sulfated zirconium oxide as electrode and electrolyte additive for direct methanol fuel cell applications. International Journal of Hydrogen Energy, 2014, 39, 11241-11249.	7.1	14
72	Tailoring active sites of iron-nitrogen-carbon catalysts for oxygen reduction in alkaline environment: Effect of nitrogen-based organic precursor and pyrolysis atmosphere. Electrochimica Acta, 2021, 391, 138899.	5.2	14

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73	La0.8Sr0.2Ga0.8Mg0.2O3Ââ˜Â thin films for IT-SOFCs: Microstructure and transport properties correlation. Journal of Power Sources, 2013, 222, 10-14.	7.8	13
74	Metalloâ€Corroles Supported on Carbon Nanostructures as Oxygen Reduction Electrocatalysts in Neutral Media. European Journal of Inorganic Chemistry, 2019, 2019, 4760-4765.	2.0	13
75	Optimization of PGM-free cathodes for oxygen reduction in microbial fuel cells. Electrochimica Acta, 2020, 334, 135650.	5.2	12
76	Investigating the factors that influence resistance rise of PIM-1 membranes in nonaqueous electrolytes. Electrochemistry Communications, 2019, 107, 106530.	4.7	11
77	Iron-Based Electrocatalysts for Energy Conversion: Effect of Ball Milling on Oxygen Reduction Activity. Applied Sciences (Switzerland), 2020, 10, 5278.	2.5	11
78	Nanostructured Fe-N-C as Bifunctional Catalysts for Oxygen Reduction and Hydrogen Evolution. Catalysts, 2021, 11, 1525.	3.5	11
79	Effect of an ormosil-based filler on the physico-chemical and electrochemical properties of Nafion membranes. Journal of Power Sources, 2007, 169, 247-252.	7.8	10
80	Development of glucose oxidase-based bioanodes for enzyme fuel cell applications. Journal of Applied Electrochemistry, 2013, 43, 181-190.	2.9	10
81	Interaction of vanadium species with a functionalized graphite electrode: A combined theoretical and experimental study for flow battery applications. Journal of Power Sources, 2019, 420, 134-142.	7.8	10
82	Tailoring morphology and structure of manganese oxide nanomaterials to enhance oxygen reduction in microbial fuel cells. Synthetic Metals, 2020, 268, 116487.	3.9	10
83	Protonâ€conducting electrolytes based on silylated and sulfonated polyetheretherketone: Synthesis and characterization. Journal of Polymer Science Part A, 2010, 48, 2178-2186.	2.3	9
84	CO2â•CH4 Reforming High Temperature Proton Conductor (HTPC) Fuel Cells. Journal of the Electrochemical Society, 2011, 158, B1368.	2.9	9
85	Air-breathing cathodes for microbial fuel cells based on iron-nitrogen-carbon electrocatalysts. Bioelectrochemistry, 2022, 146, 108103.	4.6	9
86	Fabrication of Proton Conducting Solid Oxide Fuel Cells by using Electrophoretic Deposition. ECS Transactions, 2009, 25, 577-584.	0.5	8
87	Iron-Based Electrocatalysts Supported on Nanostructured Carbon to Enhance Oxygen Reduction in Microbial Fuel Cells. ECS Transactions, 2016, 72, 9-15.	0.5	8
88	BaZrxY1-xO3-d and BaCe1-x-zZrxYzO3-d Proton Conductors For Intermediate Temperature Solid Oxide Fuel Cells (IT-SOFCs). ECS Transactions, 2007, 7, 2337-2342.	0.5	7
89	Improvement of DMFC Electrode Kinetics by Using Nanohorns Catalyst Support. Materials Science Forum, 2010, 638-642, 1106-1111.	0.3	6
90	Layered tetratitanate intercalating sulfanilic acid for organic/inorganic proton conductors. Solid State Ionics, 2012, 227, 73-79.	2.7	6

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91	Nafion/Tin Oxide Composite Membranes for Direct Methanol Fuel Cells. ECS Transactions, 2009, 25, 1935-1941.	0.5	4
92	Preparation and spectroscopic studies of silica nanoparticle-porphyrin hybrids held by noncovalent interactions. Journal of Porphyrins and Phthalocyanines, 2011, 15, 382-390.	0.8	4
93	Composite Polymer Electrolytes for Fuel Cell Applications: Fillerâ€Induced Effect on Water Sorption and Transport Properties. ChemPhysChem, 2013, 14, 3814-3821.	2.1	4
94	Deposition and electrochemical characterization of Yttrium doped Barium cerate and zirconate heterostructures. Thin Solid Films, 2014, 562, 264-268.	1.8	4
95	Redox-active coordination polymers as bifunctional electrolytes in slurry-based aqueous batteries at neutral pH. Journal of Electroanalytical Chemistry, 2021, 895, 115442.	3.8	4
96	Improving the Performance of High Temperature Protonic Conductor (HTPC) Electrolytes for Solid Oxide Fuel Cell (SOFC) Applications. Key Engineering Materials, 0, 421-422, 336-339.	0.4	3
97	Opportunities of Atomic Layer Deposition for Perovskite Solar Cells. ECS Transactions, 2015, 69, 15-22.	0.5	3
98	Crosslinked sulfonated poly(phenylene sulfide sulfone) membranes for vanadium redox flow batteries. Sustainable Materials and Technologies, 2021, 28, e00249.	3.3	3
99	Internal Methane Reforming High Temperature Proton Conductor (HTPC) Fuel Cells. ECS Transactions, 2011, 35, 785-795.	0.5	2
100	A Glucose Biofuel Cell to Generate Electricity. ECS Transactions, 2011, 35, 1-8.	0.5	2
101	Yttrium Doped Barium Cerate and Zirconate Heterostructures: Deposition and Electrochemical Characterization. ECS Transactions, 2013, 57, 1059-1068.	0.5	2
102	Mesoscopic perovskite solar cells and modules. , 2014, , .		2
103	Proton Conducting Composite Membranes from Polyether Ether Ketone and Hydrated Metal Oxides. ECS Transactions, 2006, 3, 151-156.	0.5	1
104	BaCe1-x-yZrxYyO3-d Protonic Conductor for Intermediate Temperature Solid Oxide Fuel Cells (IT-SOFCs). ECS Transactions, 2007, 6, 23-28.	0.5	1
105	SPEEK-based Composite Membranes for Direct Methanol Fuel Cells. Materials Research Society Symposia Proceedings, 2008, 1126, 1.	0.1	1
106	Single Chamber Solid Oxide Fuel Cells (SC-SOFCs) based on a Proton Conducting Electrolyte. ECS Transactions, 2009, 25, 1001-1006.	0.5	1
107	Phase Stability and Electrochemical Analysis of Nb Doped BaCe0.9Y0.1O3-x Electrolyte for IT-SOFCs. ECS Transactions, 2010, 28, 259-265.	0.5	1
108	Layered Titanates Intercalating Organic Guest Spacers for Organic/Inorganic Proton Conductors. ECS Transactions, 2011, 41, 2091-2096.	0.5	1

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109	Spin-Coated La0.8Sr0.2Ga0.8Mg0.2O3-Â Electrolyte on Infiltrated Anodes for Direct Methane Fuel Cells. ECS Transactions, 2013, 57, 1371-1378.	0.5	1
110	Innovative Redox Flow Battery Systems for the Implementation of Flexible Microgrids. , 2018, , .		1
111	Thermal, Electrochemical and In-Situ Structural Study of Stabilized LiNi_yCo_{1-y-z}M_zO₂ (M = Al and Mg) Lithium-Ion Cathode Materials Prepared by a Soft Chemistry Route. Key Engineering Materials, 2002, 206-213, 1519-1522.	0.4	0
112	Synthesis, spectroscopic and electrochemical characterization of hybrid membranes for Polymer Electrolyte Membrane Fuel Cells.. Materials Research Society Symposia Proceedings, 2004, 835, K9.11.1.	0.1	0
113	Co-Sintering of Dense Electrophoretically Deposited YSZ Films on Porous NiO-YSZ Substrates for SOFC Applications. Materials Research Society Symposia Proceedings, 2004, 835, K3.1.1.	0.1	0
114	Proton Conducting Electrolyte Membranes based on Tungsten Oxide and Sulfonated Polyether Ether Ketone Hybrid Composites. Materials Research Society Symposia Proceedings, 2005, 885, 1.	0.1	0
115	Functionalized ORMOSIL-Based Hybrid Membranes for Polymer Electrolyte Membrane Fuel Cells. Materials Research Society Symposia Proceedings, 2005, 885, 1.	0.1	0
116	Synthesis and Characterization of BaZr0.8Y0.2O3 Protonic Conductor for Intermediate Temperature Solid Oxide Fuel Cells (IT-SOFCs). Materials Research Society Symposia Proceedings, 2006, 972, 1.	0.1	0
117	Ormosil-Nafion Composite Membranes for PEM Fuel Cells. ECS Transactions, 2006, 3, 157-162.	0.5	0
118	Hybrid Membranes Based on Aromatic Polymer Blends for Fuel Cell Applications. Materials Research Society Symposia Proceedings, 2008, 1126, 1.	0.1	0
119	SnO2-Ionomer Composites: A Comparative Study of the Transport Properties. ECS Transactions, 2010, 28, 133-139.	0.5	0
120	Functionalized Metal Oxides for PEMFC Applications. ECS Meeting Abstracts, 2011, , .	0.0	0
121	Functionalized Metal Oxides for PEMFC Applications. ECS Transactions, 2011, 41, 2297-2303.	0.5	0
122	An Investigation of Inorganic/Ionomer Composite Electrolyte Membranes by Dynamic Vapor Sorption. ECS Transactions, 2011, 35, 99-106.	0.5	0
123	Device architectures with nanocrystalline mesoporous scaffolds and thin compact layers for flexible perovskite solar cells and modules. , 2015, , .		0
124	Membranes for Aqueous All Vanadium Redox Flow Battery. ECS Meeting Abstracts, 2016, , .	0.0	0
125	Membrane and Electrolyte Optimization for Quinone-Bromide Redox Flow Battery. ECS Meeting Abstracts, 2017, , .	0.0	0