Ryan O'Hayre

List of Publications by Year
in descending order

176	12,496	30047	27389
papers	citations	54 h-index	106 g-index

211	211	211	11961
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Readily processed protonic ceramic fuel cells with high performance at low temperatures. Science, 2015, 349, 1321-1326.	6.0	982
2	Enhancement of Pt and Pt-alloy fuel cell catalyst activity and durability via nitrogen-modified carbon supports. Energy and Environmental Science, 2010, 3, 1437.	15.6	586
3	Recent progress on nitrogen/carbon structures designed for use in energy and sustainability applications. Energy and Environmental Science, 2014, 7, 1212-1249.	15.6	559
4	Highly durable, coking and sulfur tolerant, fuel-flexible protonic ceramic fuel cells. Nature, 2018, 557, 217-222.	13.7	500
5	Highly efficient reversible protonic ceramic electrochemical cells for power generation and fuel production. Nature Energy, 2019, 4, 230-240.	19.8	419
6	Direct evidence of boosted oxygen evolution over perovskite by enhanced lattice oxygen participation. Nature Communications, 2020, 11, 2002.	5.8	366
7	Solution processing of transparent conductors: from flask to film. Chemical Society Reviews, 2011, 40, 5406.	18.7	335
8	Thermal-expansion offset for high-performance fuel cell cathodes. Nature, 2021, 591, 246-251.	13.7	328
9	Sr- and Mn-doped LaAlO3â^Î´ for solar thermochemical H2 and CO production. Energy and Environmental Science, 2013, 6, 2424.	15.6	323
10	The use of nitrogen-doped graphene supporting Pt nanoparticles as a catalyst for methanol electrocatalytic oxidation. Carbon, 2013, 52, 181-192.	5.4	275
11	Zr and Y co-doped perovskite as a stable, high performance cathode for solid oxide fuel cells operating below 500 Â°C. Energy and Environmental Science, 2017, 10, 176-182.	15.6	270
12	Proton-conducting oxides for energy conversion and storage. Applied Physics Reviews, 2020, 7, .	5.5	249
13	Cost-effective solid-state reactive sintering method for high conductivity proton conducting yttrium-doped barium zirconium ceramics. Solid State Ionics, 2010, 181, 496-503.	1.3	242
14	Facile Synthesis of Nanocrystalline TiO₂ Mesoporous Microspheres for Lithium-Ion Batteries. Journal of Physical Chemistry C, 2011, 115, 2529-2536.	1.5	242
15	Design and fabrication of a micro fuel cell array with â€œflip-flopâ€•interconnection. Journal of Power Sources, 2002, 112, 410-418.	4.0	230
16	A sharp peak in the performance of sputtered platinum fuel cells at ultra-low platinum loading. Journal of Power Sources, 2002, 109, 483-493.	4.0	218
17	General mobility and carrier concentration relationship in transparent amorphous indium zinc oxide films. Physical Review B, 2008, 77, .	1.1	208
18	A porous LiFePO4 and carbon nanotube composite. Chemical Communications, 2010, 46, 7151.	2.2	195

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19	Solid-state reactive sintering mechanism for large-grained yttrium-doped barium zirconate proton conducting ceramics. Journal of Materials Chemistry, 2010, 20, 6333.	6.7	182
20	The Triple Phase Boundary. Journal of the Electrochemical Society, 2005, 152, A439.	1.3	166
21	Triple ionicâ€“electronic conducting oxides for next-generation electrochemical devices. Nature Materials, 2021, 20, 301-313.	13.3	160
22	Improving PEM fuel cell catalyst activity and durability using nitrogen-doped carbon supports: observations from model Pt/HOPG systems. Journal of Materials Chemistry, 2009, 19, 7830.	6.7	149
23	A review on direct methanol fuel cellsâ€“In the perspective of energy and sustainability. MRS Energy & Sustainability, 2015, 2, 1.	1.3	135
24	Ionic and electronic impedance imaging using atomic force microscopy. Journal of Applied Physics, 2004, 95, 8382-8392.	1.1	126
25	Solid-state reactive sintering mechanism for proton conducting ceramics. Solid State Ionics, 2013, 253, 201-210.	1.3	115
26	A promising cathode for intermediate temperature protonic ceramic fuel cells: BaCo0.4Fe0.4Zr0.2O3â^'Î´. RSC Advances, 2013, 3, 15769.	1.7	111
27	First principles study of doped carbon supports for enhanced platinum catalysts. Physical Chemistry Chemical Physics, 2010, 12, 9461.	1.3	110
28	Oxide enthalpy of formation and band gap energy as accurate descriptors of oxygen vacancy formation energetics. Energy and Environmental Science, 2014, 7, 1996.	15.6	109
29	Proton-conducting yttrium-doped barium cerate ceramics synthesized by a cost-effective solid-state reactive sintering method. Solid State Ionics, 2010, 181, 1486-1498.	1.3	106
30	Intrinsic Material Properties Dictating Oxygen Vacancy Formation Energetics in Metal Oxides. Journal of Physical Chemistry Letters, 2015, 6, 1948-1953.	2.1	103
31	The role of ambient conditions on the performance of a planar, air-breathing hydrogen PEM fuel cell. Journal of Power Sources, 2006, 161, 168-182.	4.0	101
32	Dopant-Induced Electronic Structure Modification of HOPG Surfaces: Implications for High Activity Fuel Cell Catalysts. Journal of Physical Chemistry C, 2010, 114, 506-515.	1.5	100
33	Nitrogen: unraveling the secret to stable carbon-supported Pt-alloy electrocatalysts. Energy and Environmental Science, 2013, 6, 2957.	15.6	99
34	Development of portable fuel cell arrays with printed-circuit technology. Journal of Power Sources, 2003, 124, 459-472.	4.0	90
35	Tunable Oxygen Vacancy Formation Energetics in the Complex Perovskite Oxide Sr_xLa_{1â€“x}Mn_yAl_{1â€“y}O<sub>3<sub>. Chemistry of Materials, 2014, 26, 6595-6602.		90
36	Nonstoichiometric Perovskite Oxides for Solar Thermochemical H2 and CO Production. Energy Procedia, 2014, 49, 2009-2018.	1.8	89

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37	Engineering model of a passive planar air breathing fuel cell cathode. Journal of Power Sources, 2007, 167, 118-129.	4.0	88
38	BaCe_{0.25}Mn_{0.75}O_{3â^Î´}â€"a promising perovskite-type oxide for solar thermochemical hydrogen production. Energy and Environmental Science, 2018, 11, 3256-3265.	15.6	86
39	Mottâ^'Schottky and Charge-Transport Analysis of Nanoporous Titanium Dioxide Films in Air. Journal of Physical Chemistry C, 2007, 111, 4809-4814.	1.5	85
40	The scaling behavior of flow patterns: a model investigation. Journal of Power Sources, 2004, 134, 57-71.	4.0	83
41	Tuning Carbon-Based Fuel Cell Catalyst Support Structures via Nitrogen Functionalization. I. Investigation of Structural and Compositional Modification of Highly Oriented Pyrolytic Graphite Model Catalyst Supports as a Function of Nitrogen Implantation Dose. Journal of Physical Chemistry C, 2011, 115, 13667-13675.	1.5	76
42	Electrochemical performance and stability of La0Â·5Sr0Â·5Fe0Â·9Nb0Â·1O3-Î´ symmetric electrode for solid oxide fuel cells. Journal of Power Sources, 2018, 399, 398-405.	4.0	74
43	Defect Incorporation and Transport within Dense BaZr_{0.8}Y_{0.2}O_{3 â^' Î´}(BZY20) Proton-Conducting Membranes. Journal of the Electrochemical Society, 2018, 165, F581-F588.	1.3	69
44	Quantitative impedance measurement using atomic force microscopy. Journal of Applied Physics, 2004, 96, 3540-3549.	1.1	68
45	The Air/Platinum/Nafion Triple-Phase Boundary: Characteristics, Scaling, and Implications for Fuel Cells. Journal of the Electrochemical Society, 2004, 151, A756.	1.3	68
46	The Influence of TiO2 Particle Size in TiO2/CuInS2 Nanocomposite Solar Cells. Advanced Functional Materials, 2006, 16, 1566-1576.	7.8	67
47	Fabrication and Characterization of MIM Diodes Based on Nb/Nb₂O₅ Via a Rapid Screening Technique. Advanced Materials, 2011, 23, 3080-3085.	11.1	66
48	Ce-doped La_{0.7}Sr_{0.3}Fe_{0.9}Ni_{0.1}O_{3â^Î´} as symmetrical electrodes for high performance direct hydrocarbon solid oxide fuel cells. Journal of Materials Chemistry A, 2017, 5, 15253-15259.	5.2	64
49	Defect Chemistry and Transport within Dense BaCe_{0.7}Zr_{0.1}Y_{0.1}Yb_{0.1}O_{3 â^' Î´}(BCZYYb) Proton-Conducting Membranes. Journal of the Electrochemical Society, 2018, 165, F845-F853.	1.3	64
50	Predicting density functional theory total energies and enthalpies of formation of metal-nonmetal compounds by linear regression. Physical Review B, 2016, 93, .	1.1	63
51	Modeling the Steady-State and Transient Response of Polarized and Non-Polarized Proton-Conducting Doped-Perovskite Membranes. Journal of the Electrochemical Society, 2013, 160, F290-F300.	1.3	60
52	Metalâ€"Insulatorâ€"Metal Diodes: Role of the Insulator Layer on the Rectification Performance. Advanced Materials, 2013, 25, 1301-1308.	11.1	58
53	Proton-conducting ceramic fuel cells: Scale up and stack integration. Journal of Power Sources, 2021, 482, 228868.	4.0	58
54	Non-equilibrium deposition of phase pure Cu2O thin films at reduced growth temperature. APL Materials, 2014, 2, .	2.2	55

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55	Tuning Carbon-Based Fuel Cell Catalyst Support Structures via Nitrogen Functionalization. II. Investigation of Durability of Ptâ€“Ru Nanoparticles Supported on Highly Oriented Pyrolytic Graphite Model Catalyst Supports As a Function of Nitrogen Implantation Dose. Journal of Physical Chemistry C, 2011, 115, 13676-13684.	1.5	54
56	Passive water management at the cathode of a planar air-breathing proton exchange membrane fuel cell. Journal of Power Sources, 2010, 195, 3201-3206.	4.0	49
57	Enhanced Electron Mobility Due to Dopantâ€Defect Pairing in Conductive ZnMgO. Advanced Functional Materials, 2014, 24, 2875-2882.	7.8	49
58	Electrochemical nanopatterning of Ag on solid-state ionic conductor RbAg4I5 using atomic force microscopy. Applied Physics Letters, 2004, 85, 3552-3554.	1.5	48
59	The design and realization of a large-area flexible nanofiber-based mat for pollutant degradation: an application in photocatalysis. Nanoscale, 2013, 5, 5036.	2.8	44
60	Effect of Cation Ordering on the Performance and Chemical Stability of Layered Double Perovskite Cathodes. Materials, 2018, 11, 196.	1.3	43
61	Geometric Scale Effect of Flow Channels on Performance of Fuel Cells. Journal of the Electrochemical Society, 2004, 151, A1856.	1.3	42
62	A parametric study of TiO2/CuInS2nanocomposite solar cells: how cell thickness, buffer layer thickness, and TiO2particle size affect performance. Nanotechnology, 2007, 18, 055702.	1.3	42
63	Facile single-step ammonia heat-treatment and quenching process for the synthesis of improved Pt/N-graphene catalysts. Applied Surface Science, 2013, 266, 433-439.	3.1	42
64	Nanoparticles at Grain Boundaries Inhibit the Phase Transformation of Perovskite Membrane. Nano Letters, 2015, 15, 7678-7683.	4.5	42
65	Effect of a nitrogen-doped PtRu/carbon anode catalyst on the durability of a direct methanol fuel cell. Journal of Power Sources, 2012, 217, 142-151.	4.0	41
66	Ionic transport modification in proton conducting BaCe0.6Zr0.3Y0.1O3âˆ'Î´ with transition metal oxide dopants. Solid State Ionics, 2016, 294, 37-42.	1.3	41
67	High-yield electrochemical upgrading of CO2 into CH4 using large-area protonic ceramic electrolysis cells. Applied Catalysis B: Environmental, 2022, 307, 121196.	10.8	41
68	Roadmap on inorganic perovskites for energy applications. JPhys Energy, 2021, 3, 031502.	2.3	40
69	Three-dimensional quantification of composition and electrostatic potential at individual grain boundaries in doped ceria. Journal of Materials Chemistry A, 2016, 4, 5167-5175.	5.2	39
70	The origin of electrical property deterioration with increasing Mg concentration in ZnMgO:Ga. Thin Solid Films, 2012, 520, 3697-3702.	0.8	38
71	The influence of size scale on the performance of fuel cells. Solid State Ionics, 2004, 175, 789-795.	1.3	37
72	Electrical properties and flux performance of composite ceramic hydrogen separation membranes. Journal of Materials Chemistry A, 2015, 3, 5392-5401.	5.2	37

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73	Probing Grain-Boundary Chemistry and Electronic Structure in Proton-Conducting Oxides by Atom Probe Tomography. Nano Letters, 2016, 16, 6924-6930.	4.5	36
74	Active water management at the cathode of a planar air-breathing polymer electrolyte membrane fuel cell using an electroosmotic pump. Journal of Power Sources, 2010, 195, 3640-3644.	4.0	35
75	Electrocatalytic oxidation of methanol on Pt catalyst supported on nitrogen-doped graphene induced by hydrazine reduction. Journal of Physics and Chemistry of Solids, 2013, 74, 1608-1614.	1.9	35
76	Towards robust autonomous impedance spectroscopy analysis: A calibrated hierarchical Bayesian approach for electrochemical impedance spectroscopy (EIS) inversion. Electrochimica Acta, 2021, 367, 137493.	2.6	35
77	Electrochemical impedance investigation of flooding in micro-flow channels for proton exchange membrane fuel cells. Journal of Power Sources, 2006, 161, 138-142.	4.0	34
78	Ptâ€“Ru Alloyed Fuel Cell Catalysts Sputtered from a Single Alloyed Target. ACS Catalysis, 2011, 1, 1307-1315.	5.5	32
79	Effect of assembly pressure on the performance of a bendable polymer electrolyte fuel cell based on a silver nanowire current collector. Energy, 2017, 134, 412-419.	4.5	32
80	Triple Phase Boundaries in Solid-Oxide Cathodes. SIAM Journal on Applied Mathematics, 2009, 70, 510-530.	0.8	31
81	Facile single-step preparation of Pt/N-graphene catalysts with improved methanol electrooxidation activity. Journal of Solid State Electrochemistry, 2013, 17, 1089-1098.	1.2	30
82	Sintering Studies on 20 mol% Yttrium-Doped Barium Cerate. Journal of the American Ceramic Society, 2011, 94, 1800-1804.	1.9	28
83	Lateral Ionic Conduction in Planar Array Fuel Cells. Journal of the Electrochemical Society, 2003, 150, A430.	1.3	27
84	Highly Efficient, Redox-Stable, La_{0.5}Sr_{0.5}Fe_{0.9}Nb_{0.1}O_{3-Î´}Symmetric Electrode for Both Solid-Oxide Fuel Cell and H₂O/CO₂Co-Electrolysis Operation. Journal of the Electrochemical Society, 2018, 165, F981-F985.	1.3	27
85	Planar metalâ€“insulatorâ€“metal diodes based on the Nb/Nb2O5/X material system. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2013, 31, 051204.	0.6	26
86	Synthesis by spark plasma sintering of a novel protonic/electronic conductor composite: BaCe0.2Zr0.7Y0.1O3âˆ’Î´/Sr0.95Ti0.9Nb0.1O3âˆ’Î´ (BCZY27/STN95). Journal of Materials Science, 2013, 48, 6177-6185.	1.7	25
87	Development of kW-Scale Protonic Ceramic Fuel Cells and Systems. ECS Transactions, 2019, 91, 997-1008.	0.3	24
88	Phase Identification of the Layered Perovskite Ce_xSr_{2â€“x}MnO₄ and Application for Solar Thermochemical Water Splitting. Inorganic Chemistry, 2019, 58, 7705-7714.	1.9	24
89	An all-oxide electrolysis cells for syngas production with tunable H2/CO yield via co-electrolysis of H2O and CO2. Journal of Power Sources, 2021, 482, 228887.	4.0	24
90	A theoretical study of the influence of dopant concentration on the hydration properties of yttrium-doped barium cerate. Solid State Ionics, 2011, 204-205, 27-34.	1.3	23

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91	La and Al co-doped CaMnO3 perovskite oxides: From interplay of surface properties to anion exchange membrane fuel cell performance. Journal of Power Sources, 2018, 375, 265-276.	4.0	23
92	Effect of Halide-Modified Model Carbon Supports on Catalyst Stability. ACS Applied Materials & Interfaces, 2012, 4, 6728-6734.	4.0	22
93	Ammonia-fed reversible protonic ceramic fuel cells with Ru-based catalyst. Communications Chemistry, 2021, 4, .	2.0	22
94	Enhanced Stability of PtRu Supported on N-Doped Carbon for the Anode of a DMFC. Journal of the Electrochemical Society, 2012, 159, F768-F778.	1.3	19
95	Progress toward a solid-state ionic field effect transistor. Journal of Applied Physics, 2012, 111, 074511.	1.1	19
96	Anomalous low-temperature proton conductivity enhancement in a novel protonic nanocomposite. Physical Chemistry Chemical Physics, 2014, 16, 5076-5080.	1.3	19
97	Computational investigation of defect segregation at the (001) surface of BaCeO3 and BaZrO3: the role of metalâ€“oxygen bond strength in controlling vacancy segregation. Journal of Materials Chemistry A, 2013, 1, 2840.	5.2	18
98	Fabrication of a mesoporous Ba_{0.5}Sr_{0.5}Co_{0.8}Fe_{0.2}O_{3â^'Î´} perovskite as a low-cost and efficient catalyst for oxygen reduction. Dalton Transactions, 2017, 46, 13903-13911.	1.6	18
99	Chemo-Thermo-Mechanical Coupling in Protonic Ceramic Fuel Cells from Fabrication to Operation. Journal of the Electrochemical Society, 2019, 166, F1007-F1015.	1.3	18
100	Performance degradation in proton-conducting ceramic fuel cell and electrolyzer stacks. Journal of Power Sources, 2022, 537, 231356.	4.0	18
101	Measurement of Temperature and Reaction Species in the Cathode Diffusion Layer of a Free-Convection Fuel Cell. Journal of the Electrochemical Society, 2007, 154, B910.	1.3	17
102	Coupled transport and uphill permeation of steam and oxygen in a dense ceramic membrane. Journal of Membrane Science, 2011, 376, 96-101.	4.1	17
103	Porous nanocrystalline TiO2 with high lithium-ion insertion performance. Journal of Materials Science, 2013, 48, 2733-2742.	1.7	17
104	A novel wet-chemistry method for the synthesis of multicomponent nanoparticles: A case study of BaCe0.7Zr0.1Y0.1Yb0.1O3â^'Î´. Materials Letters, 2013, 92, 382-385.	1.3	17
105	Non-equilibrium synthesis, structure, and opto-electronic properties of Cu2â^'2x Zn x O alloys. Journal of Materials Science, 2015, 50, 1350-1357.	1.7	17
106	Electrical conductivities of nano ionic composite based on yttrium-doped barium zirconate and palladium metal. Solid State Ionics, 2012, 211, 26-33.	1.3	16
107	Enhanced Fuel Cell Catalyst Durability with Nitrogen Modified Carbon Supports. Journal of the Electrochemical Society, 2013, 160, F389-F394.	1.3	16
108	Spectroscopic investigation of nitrogenâ€functionalized carbon materials. Surface and Interface Analysis, 2016, 48, 283-292.	0.8	16

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109	High performance tubular protonic ceramic fuel cells via highly-scalable extrusion process. International Journal of Hydrogen Energy, 2021, 46, 27784-27792.	3.8	16
110	Highâ€Performance Alkaline Direct Methanol Fuel Cell using a Nitrogenâ€Postdoped Anode. ChemSusChem, 2014, 7, 1854-1857.	3.6	15
111	Effect of nitrogen post-doping on a commercial platinumâ€“ruthenium/carbon anode catalyst. Journal of Power Sources, 2014, 248, 296-306.	4.0	15
112	Development of a multi-species transport space theory and its application to permeation behavior in proton-conducting doped perovskites. Journal of Materials Chemistry, 2010, 20, 6271.	6.7	14
113	Double-Site Substitution of Ce into (Ba, Sr)MnO₃ Perovskites for Solar Thermochemical Hydrogen Production. ACS Energy Letters, 2021, 6, 3037-3043.	8.8	14
114	Optimization of Passive Air Breathing Fuel Cell Cathodes. Journal of Fuel Cell Science and Technology, 2010, 7, .	0.8	13
115	Solution Synthesis and Characterization of Indiumâ^'Zinc Formate Precursors for Transparent Conducting Oxides. Inorganic Chemistry, 2010, 49, 5424-5431.	1.9	13
116	Modeling space charge layer interaction and conductivity enhancement in nanoionic composites. Electrochimica Acta, 2011, 56, 9295-9302.	2.6	13
117	Diffusion Impedance Element Model for the Triple Phase Boundary. Journal of the Electrochemical Society, 2011, 158, B877.	1.3	13
118	Nanoscale impedance and complex properties in energy-related systems. MRS Bulletin, 2012, 37, 659-667.	1.7	13
119	High-Performance La0.5Ba0.5Co1/3Mn1/3Fe1/3O3â^'Î´-BaZr1â^'zYzO3â^'Î´ Cathode Composites via an Exsolution Mechanism for Protonic Ceramic Fuel Cells. Inorganics, 2018, 6, 83.	1.2	13
120	An ab Initio Investigation of Proton Stability at BaZrO₃ Interfaces. Chemistry of Materials, 2014, 26, 4915-4924.	3.2	12
121	Synthesis of high surface area CaxLa(1â^'x)Al(1â^'x)MnxO(3â^'Î´) perovskite oxides for oxygen reduction electrocatalysis in alkaline media. Catalysis Science and Technology, 2016, 6, 7744-7751.	2.1	12
122	The Role of Nanoscale Seed Layers on the Enhanced Performance of Niobium doped TiO2 Thin Films on Glass. Scientific Reports, 2016, 6, 32830.	1.6	12
123	ORR Adsorbate Dynamics on Pt Single Crystal PEM Fuel Cells. ECS Transactions, 2008, 16, 1131-1142.	0.3	11
124	Improvement in direct methanol fuel cell performance by treating the anode at high anodic potential. Journal of Power Sources, 2014, 245, 37-47.	4.0	11
125	Fuel cells for electrochemical energy conversion. EPJ Web of Conferences, 2017, 148, 00013.	0.1	11
126	Steady-State and Dynamic Modeling of Intermediate-Temperature Protonic Ceramic Fuel Cells. Journal of the Electrochemical Society, 2019, 166, F687-F700.	1.3	11

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127	In situ small-angle x-ray scattering analysis of improved catalystâ€"support interactions through nitrogen modification. MRS Communications, 2012, 2, 85-89.	0.8	10
128	Equilibrium thermodynamic predictions of coking propensity in membrane-based dehydrogenation of hydrocarbons and alcohols. Catalysis Today, 2019, 331, 7-11.	2.2	10
129	Development, characterization, and modeling of a high-performance Ru/B2CA catalyst for ammonia synthesis. Chemical Engineering Science, 2022, 247, 116902.	1.9	10
130	Atmospheric pressure synthesis of In₂Se₃, Cu₂Se, and CuInSe₂ without external selenization from solution precursors. Journal of Materials Research, 2009, 24, 1375-1387.	1.2	9
131	Measurement and Characterization of a High-Temperature, Coke-Resistant Bi-functional Ni/BZY15 Water-Gas-Shift Catalyst Under Steam-Reforming Conditions. Catalysis Letters, 2018, 148, 3592-3607.	1.4	9
132	Structural analysis and electrochemical properties of cobalt-doped Sr_{0.9}Ce_{0.1}MnO_{3â^'Î´} cathode for IT-SOFCs. Journal of Materials Research, 2014, 29, 2667-2672.	1.2	8
133	Polarization resistance and composite cathode of Ce doped SrMnO3 system for intermediate temperature solid oxide fuel cells. Solid State Ionics, 2014, 260, 60-64.	1.3	8
134	Reduction Thermodynamics of Sr_{1â^'x}Ce_xMnO₃ and Ce_xSr_{2â^'x}MnO₄ Perovskites for Solar Thermochemical Hydrogen Production. Energy Technology, 2022, 10, 2100515.	1.8	8
135	Modeling Intermediate Temperature Protonic Ceramic Fuel Cells. ECS Transactions, 2015, 68, 3165-3175.	0.3	7
136	Predicting Oxygen Off-Stoichiometry and Hydrogen Incorporation in Complex Perovskite Oxides. Chemistry of Materials, 2022, 34, 510-518.	3.2	7
137	Effect of Cu doping on the electrochemical properties and structural phases of La0.8Sr0.2Mn1â^'xCuxO3 (0â‰¤xâ‰¤0.2) at elevated temperature. Solid State Ionics, 2014, 260, 30-35.	1.3	6
138	Substitutional behavior and dielectric property of x(Na0.5K0.5)NbO3â€"(1â^'x)BaTiO3 using x-ray absorption fine structure spectroscopy. Ceramics International, 2015, 41, 12027-12031.	2.3	6
139	A Thermogravimetric Temperature-Programmed Thermal Redox Protocol for Rapid Screening of Metal Oxides for Solar Thermochemical Hydrogen Production. Frontiers in Energy Research, 2022, 10, .	1.2	6
140	Diode-coupled Ag nanoantennas for nanorectenna energy conversion. , 2011, , .		5
141	Conduction and rectification in NbOx- and NiO-based metal-insulator-metal diodes. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2016, 34, .	0.9	5
142	Water Management at the Cathode of a Planar Air-Breathing Fuel Cell with an Electroosmotic Pump. ECS Transactions, 2006, 3, 949-960.	0.3	4
143	EIS Analysis of the Triple Phase Boundary Model. ECS Transactions, 2009, 19, 23-31.	0.3	4
144	The Role of Nitrogen Doping on Durability in the Pt-Ru/HOPG System. ECS Transactions, 2010, 33, 351-357.	0.3	4

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145	Metal-insulator-metal point-contact diodes as a rectifier for rectenna. , 2010, , .		4
146	A novel way to characterize Metal-Insulator-Metal devices via nanoindentation. , 2011, , .		4
147	Model-based characterization of charged-defect transport and apparent gas-phase permeation in mixed-conducting perovskite membranes. Solid State Ionics, 2013, 249-250, 6-16.	1.3	4
148	Electromechanical tuning of nanoscale MIM diodes by nanoindentation. Journal of Materials Research, 2013, 28, 1912-1919.	1.2	4
149	Instrument for spatially resolved, temperature-dependent electrochemical impedance spectroscopy of thin films under locally controlled atmosphere. Review of Scientific Instruments, 2021, 92, 065105.	0.6	4
150	Frequency-Dependent Transport Imaging by Scanning Probe Microscopy. , 2007, , 132-172.		4
151	Poissonâ€“Boltzmann model of space charge layer effects on conductivity in randomly distributed nanoionic composites. Electrochimica Acta, 2012, 83, 454-462.	2.6	3
152	NANOSCALE ELECTROCHEMISTRY IN ENERGY RELATED SYSTEMS USING ATOMIC FORCE MICROSCOPY. World Scientific Series in Nanoscience and Nanotechnology, 2013, , 317-340.	0.1	3
153	Chapter 8: Overview of Fuel Cell Types. , 2016, , 269-302.		3
154	Combined Heat and Mass Transfer Model of a Passive Air Breathing Fuel Cell Cathode. ECS Transactions, 2006, 3, 1125-1138.	0.3	2
155	Solution deposition of amorphous IZO films by ultrasonic spray pyrolysis. , 2009, , .		2
156	Conduction electron resonance used to determine size of palladium nanoparticles in proton conducting ceramics. Journal of Magnetic Resonance, 2012, 225, 58-61.	1.2	2
157	Processing-phase diagrams: a new tool for solution-deposited thin-film development applied to the In5O(OPri)13â€“In2O3 system. Journal of Materials Chemistry C, 2014, 2, 2360.	2.7	2
158	Nitrogen Post Modification of PtRu/Carbon Catalysts for Improved Methanol Oxidation Reaction Performance in Alkaline Media. Journal of the Electrochemical Society, 2015, 162, F913-F918.	1.3	2
159	Fuel cells for electrochemical energy conversion. EPJ Web of Conferences, 2018, 189, 00011.	0.1	2
160	Proton Transport Membranes for Fuel Cells: Polymeric versus Dense Ceramic. ECS Transactions, 2006, 3, 1059-1068.	0.3	1
161	Solution deposition of amorphous IZO films by ultrasonic spray. , 2010, , .		1
162	N-Modified Carbon Supported Pt-Ru Direct Methanol Fuel Cell Catalyst Performance and Durability. ECS Meeting Abstracts, 2011, , .	0.0	1

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163	Tuning of Surface Composition and Structure of N-functionalized Carbon Supports and Pt-Ru Phase for Direct Methanol Fuel Cell Applications. ECS Meeting Abstracts, 2011, , .	0.0	1
164	Plasmonic Ag nanostructures on thin substrates for enhanced energy harvesting. Proceedings of SPIE, 2013, , .	0.8	1
165	AC Impedance Investigation of Flooding in Micro Flow Channels for Fuel Cells. , 2004, , 19.		0
166	Spatial and Temporal Measurements of Temperature and Reaction Species in the Cathode Diffusion Layer of a Planar Air-Breathing PEM Fuel Cell. ECS Transactions, 2007, 11, 1515-1526.	0.3	0
167	Optimization of Passive Air Breathing Fuel Cell Cathodes. , 2008, , .		0
168	Transparent conducting oxide development for electronics applications. , 2008, , .		0
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