Bin Zhu

List of Publications by Year
in descending order

229 papers	10,846 citations	25034 57 h-index	46799 89 g-index
251 all docs	251 docs citations	251 times ranked	4094 citing authors

#	Article	IF	Citations
1	Nanomaterials and technologies for low temperature solid oxide fuel cells: Recent advances, challenges and opportunities. Nano Energy, 2018, 45, 148-176.	16.0	363
2	Functional ceriaâ€"salt-composite materials for advanced ITSOFC applications. Journal of Power Sources, 2003, 114, 1-9.	7.8	275
3	Recent development of ceria-based (nano)composite materials for low temperature ceramic fuel cells and electrolyte-free fuel cells. Journal of Power Sources, 2013, 234, 154-174.	7.8	229
4	Shaping triple-conducting semiconductor BaCo0.4Fe0.4Zr0.1Y0.1O3-Î´ into an electrolyte for low-temperature solid oxide fuel cells. Nature Communications, 2019, 10, 1707.	12.8	218
5	Crafting MoC2-doped bimetallic alloy nanoparticles encapsulated within N-doped graphene as roust bifunctional electrocatalysts for overall water splitting. Nano Energy, 2018, 50, 212-219.	16.0	205
6	Innovative low temperature SOFCs and advanced materials. Journal of Power Sources, 2003, 118, 47-53.	7.8	204
7	Novel coreâ€"shell SDC/amorphous Na2CO3 nanocomposite electrolyte for low-temperature SOFCs. Electrochemistry Communications, 2008, 10, 1617-1620.	4.7	196
8	Ceria-based nanocomposite with simultaneous proton and oxygen ion conductivity for low-temperature solid oxide fuel cells. Journal of Power Sources, 2011, 196, 2754-2758.	7.8	168
9	Schottky Junction Effect on High Performance Fuel Cells Based on Nanocomposite Materials. Advanced Energy Materials, 2015, 5, 1401895.	19.5	166
10	Proton Shuttles in CeO₂/CeO_{2â^'Î´} Coreâ€"Shell Structure. ACS Energy Letters, 2019, 4, 2601-2607.	17.4	160
11	Fast ionic conduction in semiconductor CeO2-Î´ electrolyte fuel cells. NPG Asia Materials, 2019, 11, .	7.9	157
12	Innovative solid carbonateÃ¢Â€Â"ceria composite electrolyte fuel cells. Electrochemistry Communications, 2001, 3, 566-571.	4.7	148
13	An Electrolyteâ€Free Fuel Cell Constructed from One Homogenous Layer with Mixed Conductivity. Advanced Functional Materials, 2011, 21, 2465-2469.	14.9	143
14	Novel fuel cell with nanocomposite functional layer designed by perovskite solar cell principle. Nano Energy, 2016, 19, 156-164.	16.0	137
15	Advantages of intermediate temperature solid oxide fuel cells for tractionary applications. Journal of Power Sources, 2001, 93, 82-86.	7.8	136
16	Improved ceriaâ€"carbonate composite electrolytes. International Journal of Hydrogen Energy, 2010, 35, 2684-2688.	7.1	129
17	A Brief Description of High Temperature Solid Oxide Fuel Cellâ€™s Operation, Materials, Design, Fabrication Technologies and Performance. Applied Sciences (Switzerland), 2016, 6, 75.	2.5	128
18	Breakthrough fuel cell technology using ceria-based multi-functional nanocomposites. Applied Energy, 2013, 106, 163-175.	10.1	126

#	Article	IF	Citations
19	Samariumâ€Doped Ceria Nanowires: Novel Synthesis and Application in Lowâ€Temperature Solid Oxide Fuel Cells. Advanced Materials, 2010, 22, 1640-1644.	21.0	120
20	Theoretical approach on ceria-based two-phase electrolytes for low temperature (300â€“600Â°C) solid oxide fuel cells. Electrochemistry Communications, 2008, 10, 302-305.	4.7	119
21	A new energy conversion technology based on nano-redox and nano-device processes. Nano Energy, 2013, 2, 1179-1185.	16.0	117
22	Charge separation and transport in La 0.6 Sr 0.4 Co 0.2 Fe 0.8 O 3-Î´ and ion-doping ceria heterostructure material for new generation fuel cell. Nano Energy, 2017, 37, 195-202.	16.0	115
23	Solid oxide fuel cell (SOFC) technical challenges and solutions from nano-aspects. International Journal of Energy Research, 2009, 33, 1126-1137.	4.5	113
24	Fuel cells based on electrolyte and non-electrolyte separators. Energy and Environmental Science, 2011, 4, 2986.	30.8	111
25	Novel hybrid conductors based on doped ceria and BCY20 for ITSOFC applications. Electrochemistry Communications, 2004, 6, 378-383.	4.7	110
26	Samarium doped ceriaâ€“(Li/Na)2CO3 composite electrolyte and its electrochemical properties in low temperature solid oxide fuel cell. Journal of Power Sources, 2010, 195, 4695-4699.	7.8	108
27	Advanced Fuel Cell Based on Perovskite Laâ€“SrTiO₃ Semiconductor as the Electrolyte with Superoxide-Ion Conduction. ACS Applied Materials & Interfaces, 2018, 10, 33179-33186.	8.0	103
28	Electrochemical and electrical properties of doped CeO2-ZnO composite for low-temperature solid oxide fuel cell applications. Journal of Power Sources, 2018, 392, 33-40.	7.8	101
29	Superionic Conductivity of Sm³⁺, Pr³⁺, and Nd³⁺ Triple-Doped Ceria through Bulk and Surface Two-Step Doping Approach. ACS Applied Materials & Interfaces, 2017, 9, 23614-23623.	8.0	98
30	Next generation fuel cell R&D. International Journal of Energy Research, 2006, 30, 895-903.	4.5	97
31	Preparation and characterization of Sm and Ca co-doped ceriaâ€“La_{0.6}Sr_{0.4}Co_{0.2}Fe_{0.8}O_{3â^’Î´}semiconductorâ€“ionic composites for electrolyte-layer-free fuel cells. Journal of Materials Chemistry A, 2016, 4, 15426-15436.	10.[illegible]	97
32	Tuning the Energy Band Structure at Interfaces of the SrFe_{0.75}Ti_{0.25}O_{3â^’Î´}â€“Sm_{0.25}Ce_{0.75}O_{2â^’Î´} Heterostructure for Fast Ionic Transport. ACS Applied Materials & Interfaces, 2019, 11, 38737-38745.	8.0	97
33	A fuel cell with a single component functioning simultaneously as the electrodes and electrolyte. Electrochemistry Communications, 2011, 13, 225-227.	4.7	94
34	Single-component and three-component fuel cells. Journal of Power Sources, 2011, 196, 6362-6365.	7.8	93
35	Industrial-grade rare-earth and perovskite oxide for high-performance electrolyte layer-free fuel cell. Journal of Power Sources, 2016, 307, 270-279.	7.8	91
36	Electrical properties of nanocube CeO2 in advanced solid oxide fuel cells. International Journal of Hydrogen Energy, 2018, 43, 12909-12916.	7.1	87

#	Article	IF	Citations
37	Natural Hematite for Nextâ€Generation Solid Oxide Fuel Cells. Advanced Functional Materials, 2016, 26, 938-942.	14.9	85
38	Application of a Triple-Conducting Heterostructure Electrolyte of Ba_{0.5}Sr_{0.5}Co_{0.1}Fe_{0.7}Zr_{0.1}Y_{0.1}O_{3âˆ’Î´} and Ca_{0.04}Ce_{0.80}Sm_{0.16}O_{2âˆ’Î´} in a High-Performance Low-Temperature Solid Oxide Fuel Cell. ACS Applied Materials & Interfaces, 2020, 12, 35071-35080.	8.0	84
39	Solid oxide fuel cell (SOFC) using industrial grade mixed rare-earth oxide electrolytes. International Journal of Hydrogen Energy, 2008, 33, 3385-3392.	7.1	83
40	Electrochemical study of lithiated transition metal oxide composite as symmetrical electrode for low temperature ceramic fuel cells. International Journal of Hydrogen Energy, 2013, 38, 11398-11405.	7.1	80
41	Semiconductor TiO₂ thin film as an electrolyte for fuel cells. Journal of Materials Chemistry A, 2019, 7, 16728-16734.	10.3	80
42	Advanced Fuel Cell Based on New Nanocrystalline Structure Gd_{0.1}Ce_{0.9}O₂ Electrolyte. ACS Applied Materials & Interfaces, 2019, 11, 10642-10650.	8.0	78
43	Promoted electrocatalytic activity and ionic transport simultaneously in dual functional Ba0.5Sr0.5Fe0.8Sb0.2O3-Î´-Sm0.2Ce0.8O2-Î´ heterostructure. Applied Catalysis B: Environmental, 2021, 298, 120503.	20.2	78
44	Semiconductor Electrochemistry for Clean Energy Conversion and Storage. Electrochemical Energy Reviews, 2021, 4, 757-792.	25.5	77
45	Mixed ion and electron conductive composites for single component fuel cells: I. Effects of composition and pellet thickness. Journal of Power Sources, 2012, 217, 164-169.	7.8	76
46	The semiconductor SrFe0.2Ti0.8O3-Î´-ZnO heterostructure electrolyte fuel cells. International Journal of Hydrogen Energy, 2019, 44, 30319-30327.	7.1	75
47	Semiconductor-ionic Membrane of LaSrCoFe-oxide-doped Ceria Solid Oxide Fuel Cells. Electrochimica Acta, 2017, 248, 496-504.	5.2	74
48	Electrolysis studies based on ceria-based composites. Electrochemistry Communications, 2006, 8, 495-498.	4.7	72
49	Carbon anode in direct carbon fuel cell. International Journal of Hydrogen Energy, 2010, 35, 2732-2736.	7.1	69
50	Study on Zinc Oxide-Based Electrolytes in Low-Temperature Solid Oxide Fuel Cells. Materials, 2018, 11, 40.	2.9	69
51	Synthesis and characterization of composite electrolytes based on samaria-doped ceria and Na/Li carbonates. International Journal of Hydrogen Energy, 2010, 35, 2953-2957.	7.1	68
52	A single-component fuel cell reactor. International Journal of Hydrogen Energy, 2011, 36, 8536-8541.	7.1	67
53	State of the art ceria-carbonate composites (3C) electrolyte for advanced low temperature ceramic fuel cells (LTCFCs). International Journal of Hydrogen Energy, 2012, 37, 19417-19425.	7.1	66
54	High performance transition metal oxide composite cathode for low temperature solid oxide fuel cells. Journal of Power Sources, 2012, 203, 65-71.	7.8	64

#	Article	IF	Citations
55	Understanding the electrochemical mechanism of the coreâ€“shell ceriaâ€“LiZnO nanocomposite in a low temperature solid oxide fuel cell. Journal of Materials Chemistry A, 2014, 2, 5399.	10.3	62
56	Intermediate temperature fuel cells based on doped ceriaâ€“LiClâ€“SrCl2 composite electrolyte. Journal of Power Sources, 2002, 104, 73-78.	7.8	61
57	Natural Mineral-Based Solid Oxide Fuel Cell with Heterogeneous Nanocomposite Derived from Hematite and Rare-Earth Minerals. ACS Applied Materials & Interfaces, 2016, 8, 20748-20755.	8.0	59
58	The fuel cells studies from ionic electrolyte Ce0.8Sm0.05Ca0.15O2â^'Î´ to the mixture layers with semiconductor Ni0.8Co0.15Al0.05LiO2â^'Î´. International Journal of Hydrogen Energy, 2016, 41, 18761-18768.	7.1	57
59	Direct lignin fuel cell for power generation. RSC Advances, 2013, 3, 5083.	3.6	55
60	Highly Oxidized Graphene Anchored Ni(OH)₂ Nanoflakes as Pseudocapacitor Materials for Ultrahigh Loading Electrode with High Areal Specific Capacitance. Journal of Physical Chemistry C, 2014, 118, 24866-24876.	3.1	55
61	Role of carbonate phase in ceria-carbonate composite for low temperature solid oxide fuel cells: A review. International Journal of Energy Research, 2017, 41, 465-481.	4.5	53
62	Intermediate-temperature proton-conducting fuel cells â€" Present experience and future opportunities. Solid State Ionics, 1999, 125, 439-446.	2.7	52
63	Semiconductor Fe-doped SrTiO3-Î´ perovskite electrolyte for low-temperature solid oxide fuel cell (LT-SOFC) operating below 520ÂÂ°C. International Journal of Hydrogen Energy, 2020, 45, 14470-14479.	7.1	52
64	A new energy conversion technology joining electrochemical and physical principles. RSC Advances, 2012, 2, 5066.	3.6	51
65	Low temperature ceramic fuel cells using all nano composite materials. Nano Energy, 2012, 1, 631-639.	16.0	51
66	Fabrication of novel electrolyte-layer free fuel cell with semi-ionic conductor (Ba0.5Sr0.5Co0.8Fe0.2O3â^'Î´- Sm0.2Ce0.8O1.9) and Schottky barrier. Journal of Power Sources, 2016, 328, 136-142.	7.8	50
67	Recent advance in physical description and material development for single component SOFC: A mini-review. Chemical Engineering Journal, 2022, 444, 136533.	12.7	50
68	Mixed ionic-electronic conductor membrane based fuel cells by incorporating semiconductor Ni 0.8 Co 0.15 Al 0.05 LiO 2â^'Î´ into the Ce 0.8 Sm 0.2 O 2â^'Î´ -Na 2 CO 3 electrolyte. International Journal of Hydrogen Energy, 2016, 41, 15346-15353.	7.1	49
69	Functional ceria-based nanocomposites for advanced low-temperature (300â€“600ÂÂ°C) solid oxide fuel cell: A comprehensive review. Materials Today Energy, 2020, 15, 100373.	4.7	48
70	Calcium doped ceria-based materials for cost-effective intermediate temperature solid oxide fuel cells. Solid State Sciences, 2003, 5, 1127-1134.	3.2	47
71	Intermediate temperature fuel cells with electrolytes based on oxyacid salts. Journal of Power Sources, 1994, 52, 289-293.	7.8	46
72	Using a fuel cell to study fluoride-based electrolytes. Electrochemistry Communications, 1999, 1, 242-246.	4.7	45

#	Article	IF	Citations
73	Intermediate temperature proton conducting saltâ€"oxide composites. Solid State Ionics, 1999, 125, 397-405.	2.7	45
74	Direct biofuel low-temperature solid oxide fuel cells. Energy and Environmental Science, 2011, 4, 1273.	30.8	45
75	Li effects on layer-structured oxide LixNi0.8Co0.15Al0.05O2-Î´: Improving cell performance via on-line reaction. Electrochimica Acta, 2019, 295, 325-332.	5.2	45
76	Electrochemical properties of Ni0.4Zn0.6 Fe2O4 and the heterostructure composites (Niâ€"Zn) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 62	5.2	45
77	Junction and energy band on novel semiconductor-based fuel cells. IScience, 2021, 24, 102191.	4.1	45
78	Fabrication of electrolyte-free fuel cell with Mg0.4Zn0.6O/Ce0.8Sm0.2O2â^'Î´â€"Li0.3Ni0.6Cu0.07Sr0.03O2â^'Î´ layer. Journal of Power Sources, 2014, 248, 577-581.	7.8	44
79	Design principle and assessing the correlations in Sb-doped Ba0.5Sr0.5FeO3â€"Î´ perovskite oxide for enhanced oxygen reduction catalytic performance. Journal of Catalysis, 2021, 395, 168-177.	6.2	44
80	SDCâ€"LiNa carbonate composite and nanocomposite electrolytes. International Journal of Hydrogen Energy, 2010, 35, 2970-2975.	7.1	43
81	Novel high ionic conductivity electrolyte membrane based on semiconductor La0.65Sr0.3Ce0.05Cr0.5Fe0.5O3-Î´ for low-temperature solid oxide fuel cells. Journal of Power Sources, 2019, 421, 33-40.	7.8	43
82	Functional semiconductorâ€"ionic composite GDCâ€"KZnAl/LiNiCuZnOx for single-component fuel cell. RSC Advances, 2014, 4, 9920.	3.6	42
83	LiNiFe-based layered structure oxide and composite for advanced single layer fuel cells. Journal of Power Sources, 2016, 316, 37-43.	7.8	42
84	Strategy towards cost-effective low-temperature solid oxide fuel cells: A mixed-conductive membrane comprised of natural minerals and perovskite oxide. Journal of Power Sources, 2017, 342, 779-786.	7.8	42
85	Title is missing!. Journal of Materials Science Letters, 2001, 20, 591-594.	0.5	40
86	Electrochemical study on co-doped ceriaâ€"carbonate composite electrolyte. Journal of Power Sources, 2012, 201, 121-127.	7.8	40
87	Ceria-carbonate composite for low temperature solid oxide fuel cell: Sintering aid and composite effect. International Journal of Hydrogen Energy, 2014, 39, 12309-12316.	7.1	40
88	Effects of composition on the electrochemical property and cell performance of single layer fuel cell. Journal of Power Sources, 2015, 275, 476-482.	7.8	40
89	Electrochemical study of lithiated transition metal oxide composite for single layer fuel cell. Journal of Power Sources, 2015, 286, 388-393.	7.8	39
90	Advanced electrolyte-free fuel cells based on functional nanocomposites of a single porous component: analysis, modeling and validation. RSC Advances, 2012, 2, 8036.	3.6	38

#	Article	IF	Citations
91	Stability study of SOFC using layered perovskite oxide La1Â·85Sr0Â·15CuO4 mixed with ionic conductor as membrane. Electrochimica Acta, 2020, 332, 135487.	5.2	38
92	Advanced fuel cell based on semiconductor perovskite Laâ€"BaZrYO3-Î´ as an electrolyte material operating at low temperature 550ÂÂ°C. International Journal of Hydrogen Energy, 2020, 45, 27501-27509.	7.1	38
93	Electrochemical Properties of a Co-Doped SrSnO_{3â^'Î´}-Based Semiconductor as an Electrolyte for Solid Oxide Fuel Cells. ACS Applied Energy Materials, 2020, 3, 6323-6333.	5.1	38
94	All in One Multifunctional Perovskite Material for Next Generation SOFC. Electrochimica Acta, 2016, 193, 225-230.	5.2	37
95	Enhanced ionic conductivity of yttria-stabilized ZrO2 with natural CuFe-oxide mineral heterogeneous composite for low temperature solid oxide fuel cells. International Journal of Hydrogen Energy, 2017, 42, 17495-17503.	7.1	37
96	Preparation and characterization of Sm0.2Ce0.8O1.9/Na2CO3 nanocomposite electrolyte for low-temperature solid oxide fuel cells. International Journal of Hydrogen Energy, 2011, 36, 3984-3988.	7.1	36
97	Novel Perovskite Semiconductor Based on Co/Fe-Codoped LBZY (La_{0.5}Ba_{0.5}) Tj ETQq1 1 0.784314 rgBT /Ove Electrolyte in Ceramic Fuel Cells. ACS Applied Energy Materials, 2021, 4, 5798-5808.	5.1	36
98	An ionic conductor Ce0.8Sm0.2O2â^'Î´ (SDC) and semiconductor Sm0.5Sr0.5CoO3 (SSC) composite for high performance electrolyte-free fuel cell. International Journal of Hydrogen Energy, 2017, 42, 22228-22234.	7.1	35
99	A nanostructure anode (Cu0.2Zn0.8) for low-temperature solid oxide fuel cell at 400â€"600Â°C. Journal of Power Sources, 2010, 195, 8067-8070.	7.8	34
100	Enhanced ionic conductivity in calcium doped ceria â€" Carbonate electrolyte: A composite effect. International Journal of Hydrogen Energy, 2012, 37, 19401-19406.	7.1	34
101	Studies of modified lithiated NiO cathode for low temperature solid oxide fuel cell with ceria-carbonate composite electrolyte. International Journal of Hydrogen Energy, 2013, 38, 370-376.	7.1	34
102	Electrochemical study of nanostructured electrode for low-temperature solid oxide fuel cell (LTSOFC). International Journal of Energy Research, 2014, 38, 518-523.	4.5	34
103	The composite electrolyte with an insulation Sm2O3 and semiconductor NiO for advanced fuel cells. International Journal of Hydrogen Energy, 2018, 43, 12739-12747.	7.1	34
104	Time-dependent performance change of single layer fuel cell with Li0.4Mg0.3Zn0.3O/Ce0.8Sm0.2O2â^'Î´ composite. International Journal of Hydrogen Energy, 2014, 39, 10718-10723.	7.1	33
105	The electrolyte-layer free fuel cell using aÂsemiconductor-ionic Sr2Fe1.5Mo0.5O6-Î´ â€" Ce0.8Sm0.2O2-Î´ composite functional membrane. International Journal of Hydrogen Energy, 2017, 42, 25001-25007.	7.1	32
106	Validating the technological feasibility of yttria-stabilized zirconia-based semiconducting-ionic composite in intermediate-temperature solid oxide fuel cells. Journal of Power Sources, 2018, 384, 318-327.	7.8	32
107	Fundamental study on biomass-fuelled ceramic fuel cell. International Journal of Energy Research, 2002, 26, 57-66.	4.5	31
108	SDC/Na2CO3 nanocomposite: New freeze drying based synthesis and application as electrolyte in low-temperature solid oxide fuel cells. International Journal of Hydrogen Energy, 2012, 37, 19380-19387.	7.1	31

#	Article	IF	Citations
109	Ce_{0.8}(SmZr)_{0.2}O₂-carbonate nanocomposite electrolyte for solid oxide fuel cell. International Journal of Energy Research, 2014, 38, 524-529.	4.5	31
110	Significance enhancement in the conductivity of core shell nanocomposite electrolytes. RSC Advances, 2015, 5, 86322-86329.	3.6	31
111	Proton and oxygen ion-mixed-conducting ceramic composites and fuel cells. Solid State Ionics, 2001, 145, 371-380.	2.7	30
112	Theoretical description of superionic conductivities in samaria doped ceria based nanocomposites. Applied Physics Letters, 2010, 97, .	3.3	30
113	Development of methanol-fueled low-temperature solid oxide fuel cells. International Journal of Energy Research, 2011, 35, 690-696.	4.5	30
114	Electrochemical study of the composite electrolyte based on samaria-doped ceria and containing yttria as a second phase. Solid State Ionics, 2011, 188, 58-63.	2.7	30
115	Synthesis of Ba 0.3 Ca 0.7 Co 0.8 Fe 0.2 O 3-Î´ composite material as novel catalytic cathode for ceria-carbonate electrolyte fuel cells. Electrochimica Acta, 2015, 178, 385-391.	5.2	30
116	Standardized Procedures Important for Improving Single-Component Ceramic Fuel Cell Technology. ACS Energy Letters, 2017, 2, 2752-2755.	17.4	30
117	Semiconductor Nb-Doped SrTiO_{3âˆ'Î´} Perovskite Electrolyte for a Ceramic Fuel Cell. ACS Applied Energy Materials, 2021, 4, 365-375.	5.1	30
118	Pr2NiO4â€“Ag composite cathode for low temperature solid oxide fuel cells with ceria-carbonate composite electrolyte. International Journal of Hydrogen Energy, 2012, 37, 19388-19394.	7.1	29
119	Nanocomposite electrode materials for low temperature solid oxide fuel cells using the ceria-carbonate composite electrolytes. International Journal of Hydrogen Energy, 2012, 37, 19351-19356.	7.1	29
120	Electrochemical properties of LaCePr-oxide/K 2 WO 4 composite electrolyte for low-temperature SOFCs. Electrochemistry Communications, 2017, 77, 44-48.	4.7	29
121	Natural hematite ore composited with ZnO nanoneedles for energy applications. Composites Part B: Engineering, 2018, 137, 178-183.	12.0	29
122	Superionic Conductivity in Ceria-BasedÂHeterostructure Composites for Low-Temperature Solid Oxide Fuel Cells. Nano-Micro Letters, 2020, 12, 178.	27.0	29
123	A High Functional Cathode Material: Formula for Low-Temperature Solid Oxide Fuel Cells. Electrochemical and Solid-State Letters, 2006, 9, A86-A87.	2.2	28
124	Low-temperature fuel cells using a composite of redox-stable perovskite oxide La0.7Sr0.3Cr0.5Fe0.5O3-Î´ and ionic conductor. Journal of Power Sources, 2017, 366, 259-264.	7.8	28
125	Proton Conduction and Fuel Cell Using the CuFe-Oxide Mineral Composite Based on CuFeO₂ Structure. ACS Applied Energy Materials, 2018, 1, 580-588.	5.1	28
126	Semiconductor-ionic materials could play an important role in advanced fuel-to-electricity conversion. International Journal of Energy Research, 2018, 42, 3413-3415.	4.5	28

#	Article	IF	Citations
127	Cubic silicon carbide/zinc oxide heterostructure fuel cells. Applied Physics Letters, 2020, 117, .	3.3	28
128	Tunable magneto-optical and interfacial defects of Nd and Cr-doped bismuth ferrite nanoparticles for microwave absorber applications. Journal of Colloid and Interface Science, 2022, 608, 1868-1881.	9.4	28
129	Interface engineering of bi-layer semiconductor SrCoSnO3-Î´-CeO2-Î´ heterojunction electrolyte for boosting the electrochemical performance of low-temperature ceramic fuel cell. International Journal of Hydrogen Energy, 2021, 46, 33969-33977.	7.1	28
130	Doped ceriaâ€“chloride composite electrolyte for intermediate temperature ceramic membrane fuel cells. Materials Letters, 2002, 53, 186-192.	2.6	27
131	Novel ceramic fuel cell using non-ceria-based composites as electrolyte. Electrochemistry Communications, 2007, 9, 2863-2866.	4.7	27
132	Cobalt oxides coated commercial Ba0.5Sr0.5Co0.8Fe0.2O3âˆ’Î´ as high performance cathode for low-temperature SOFCs. Electrochimica Acta, 2016, 191, 223-229.	5.2	27
133	Natural CuFe2O4 mineral for solid oxide fuel cells. International Journal of Hydrogen Energy, 2017, 42, 17514-17521.	7.1	27
134	La0.1SrxCa0.9âˆ’xMnO3âˆ’Î´-Sm0.2Ce0.8O1.9 composite material for novel low temperature solid oxide fuel cells. International Journal of Hydrogen Energy, 2017, 42, 17552-17558.	7.1	27
135	High-performance SOFC based on a novel semiconductor-ionic SrFeO3-Î´â€“Ce0.8Sm0.2O2-Î´ membrane. International Journal of Hydrogen Energy, 2018, 43, 12697-12704.	7.1	27
136	Alkaline earth metal and samarium co-doped ceria as efficient electrolytes. Applied Physics Letters, 2018, 112, .	3.3	27
137	Titanium-substituted ferrite perovskite: An excellent sulfur and coking tolerant anode catalyst for SOFCs. Catalysis Today, 2019, 330, 217-221.	4.4	27
138	Ionic Conducting Properties and Fuel Cell Performance Developed by Band Structures. Journal of Physical Chemistry C, 2019, 123, 8569-8577.	3.1	26
139	Processing SCNT(SrCo0.8Nb0.1Ta0.1O3-Î´)-SCDC(Ce0.8Sm0.05Ca0.15O2-Î´) composite into semiconductor-ionic membrane fuel cell (SIMFC) to operate below 500ÂÂ°C. International Journal of Hydrogen Energy, 2019, 44, 31372-31385.	7.1	26
140	Tuning La0.6Sr0.4Co0.2Fe0.8O3-Î´ perovskite cathode as functional electrolytes for advanced low-temperature SOFCs. Catalysis Today, 2020, 355, 295-303.	4.4	26
141	Tailoring triple charge conduction in BaCo0.2Fe0.1Ce0.2Tm0.1Zr0.3Y0.1O3âˆ’Î´ semiconductor electrolyte for boosting solid oxide fuel cell performance. Renewable Energy, 2021, 172, 336-349.	8.9	26
142	Surfaceâ€Engineered Homostructure for Enhancing Proton Transport. Small Methods, 2022, 6, e2100901.	8.6	26
143	Flowerlike CeO2 microspheres coated with Sr2Fe1.5Mo0.5Ox nanoparticles for an advanced fuel cell. Scientific Reports, 2015, 5, 11946.	3.3	25
144	Steam/CO2 electrolysis in symmetric solid oxide electrolysis cell with barium cerate-carbonate composite electrolyte. Electrochimica Acta, 2016, 190, 193-198.	5.2	25

#	Article	IF	Citations
145	The sintering temperature effect on electrochemical properties of Ce0.8Sm0.05Ca0.15O2-Î´ (SCDC)-La0.6Sr0.4Co0.2Fe0.8O3-Î´ (LSCF) heterostructure pellet. Nanoscale Research Letters, 2019, 14, 162.	5.7	25
146	A novel coreâ€“shell nanocomposite electrolyte for low temperature fuel cells. Journal of Power Sources, 2012, 201, 164-168.	7.8	24
147	Non-doped CeO2-carbonate nanocomposite electrolyte for low temperature solid oxide fuel cells. Ceramics International, 2020, 46, 29290-29296.	4.8	23
148	Advanced Multiâ€Fuelled Solid Oxide Fuel Cells (ASOFCs) Using Functional Nanocomposites for Polygeneration. Advanced Energy Materials, 2011, 1, 1225-1233.	19.5	22
149	Preparation and Characterization of Nanocomposite Calcium Doped Ceria Electrolyte With Alkali Carbonates (NK-CDC) for SOFC. Journal of Fuel Cell Science and Technology, 2011, 8, .	0.8	22
150	Catalytic membrane with high ionâ€“electron conduction made of strongly correlated perovskite LaNiO3 and Ce0.8Sm0.2O2-Î´ for fuel cells. Journal of Catalysis, 2020, 386, 117-125.	6.2	22
151	Demonstrating the potential of iron-doped strontium titanate electrolyte with high-performance for low temperature ceramic fuel cells. Renewable Energy, 2022, 196, 901-911.	8.9	22
152	Nanocomposites for Advanced Fuel Cell Technology. Journal of Nanoscience and Nanotechnology, 2011, 11, 8873-8879.	0.9	21
153	Design, fabrication and characterization of a double layer solid oxide fuel cell (DLFC). Journal of Power Sources, 2016, 332, 8-15.	7.8	21
154	CoFeZrAl-oxide based composite for advanced solid oxide fuel cells. Electrochemistry Communications, 2016, 73, 15-19.	4.7	21
155	Industrial grade rare-earth triple-doped ceria applied for advanced low-temperature electrolyte layer-free fuel cells. International Journal of Hydrogen Energy, 2017, 42, 22273-22279.	7.1	21
156	Semiconductor Heterostructure SrTiO₃/CeO₂ Electrolyte Membrane Fuel Cells. Journal of the Electrochemical Society, 2020, 167, 054504.	2.9	21
157	Electrochemical Properties of a Dual-Ion Semiconductor-Ionic Co_{0.2}Zn_{0.8}O-Sm_{0.20}Ce_{0.80}O_{2âˆ’Î´} Composite for a High-Performance Low-Temperature Solid Oxide Fuel Cell. ACS Applied Energy Materials, 2021, 4, 194-207.	5.1	21
158	Thermodynamic analysis of ITSOFC hybrid system for polygenerations. International Journal of Hydrogen Energy, 2010, 35, 2824-2828.	7.1	20
159	Synthesis of hierarchically porous LiNiCuZn-oxide and its electrochemical performance for low-temperature fuel cells. International Journal of Hydrogen Energy, 2014, 39, 12317-12322.	7.1	19
160	Hybrid power generation system of solar energy and fuel cells. International Journal of Energy Research, 2016, 40, 717-725.	4.5	18
161	Photovoltaic properties of LixCo3âˆ’xO4/TiO2 heterojunction solar cells with high open-circuit voltage. Solar Energy Materials and Solar Cells, 2016, 157, 126-133.	6.2	18
162	Single-phase electronic-ionic conducting Sm3+/Pr3+/Nd3+ triple-doped ceria for new generation fuel cell technology. International Journal of Hydrogen Energy, 2018, 43, 12817-12824.	7.1	18

#	Article	IF	Citations
163	Study of Ceria-Carbonate Nanocomposite Electrolytes for Low-Temperature Solid Oxide Fuel Cells. Journal of Nanoscience and Nanotechnology, 2012, 12, 4941-4945.	0.9	17
164	Study on GDC-KZnAl composite electrolytes for low-temperature solid oxide fuel cells. International Journal of Hydrogen Energy, 2014, 39, 17460-17465.	7.1	17
165	Progress in Electrolyte-Free Fuel Cells. Frontiers in Energy Research, 2016, 4, .	2.3	17
166	Bioderived Calcite as Electrolyte for Solid Oxide Fuel Cells: A Strategy toward Utilization of Waste Shells. ACS Sustainable Chemistry and Engineering, 2017, 5, 10387-10395.	6.7	17
167	Experimental and physical approaches on a novel semiconducting-ionic membrane fuel cell. International Journal of Hydrogen Energy, 2018, 43, 12756-12764.	7.1	17
168	Nanoparticle exsolution in perovskite oxide and its sustainable electrochemical energy systems. Journal of Power Sources, 2021, 492, 229626.	7.8	17
169	Low-temperature solid oxide fuel cells based on Tm-doped SrCeO2-Î´ semiconductor electrolytes. Materials Today Energy, 2021, 20, 100661.	4.7	17
170	PN Heterostructure Interface-Facilitated Proton Conduction in 3C-SiC/Na_{0.6}CoO₂ Electrolyte for Fuel Cell Application. ACS Applied Energy Materials, 2021, 4, 7519-7525.	5.1	17
171	Study of CuNiZnGdCe-Nanocomposite Anode for Low Temperature SOFC. Nanoscience and Nanotechnology Letters, 2012, 4, 389-393.	0.4	16
172	Effect of titania concentration on the grain boundary conductivity of calcium-doped ceria electrolyte. Ceramics International, 2014, 40, 9775-9781.	4.8	16
173	Floss-like Niâ€“Co binary hydroxides assembled by whisker-like nanowires for high-performance supercapacitor. Ionics, 2015, 21, 1655-1663.	2.4	16
174	Tunning tin-based perovskite as an electrolyte for semiconductor protonic fuel cells. International Journal of Hydrogen Energy, 2022, 47, 5531-5540.	7.1	16
175	Composite electrolyte with proton conductivity for low-temperature solid oxide fuel cell. Applied Physics Letters, 2015, 107, .	3.3	15
176	Comparative study on three commercial carbons for supercapacitor applications. Russian Journal of Electrochemistry, 2015, 51, 77-85.	0.9	15
177	Tuning La₂O₃ to high ionic conductivity by Ni-doping. Chemical Communications, 2022, 58, 4360-4363.	4.1	15
178	Study on Nanocomposites Based on Carbonate @ Ceria. Journal of Nanoscience and Nanotechnology, 2010, 10, 1203-1207.	0.9	13
179	Synthesis of uniform quasi-octahedral CeO2 mesocrystals via a surfactant-free route. Journal of Nanoparticle Research, 2011, 13, 5879-5885.	1.9	13
180	Interface engineering towards low temperature in-situ densification of SOFC. International Journal of Hydrogen Energy, 2020, 45, 10030-10038.	7.1	13

#	Article	IF	Citations
181	Synergistic effect of sodium content for tuning Sm2O3 as a stable electrolyte in proton ceramic fuel cells. Renewable Energy, 2022, 193, 608-616.	8.9	13
182	Enhancement of Conductivity in Ceria-Carbonate Nanocomposites for LTSOFCs. Journal of Nano Research, 2009, 6, 197-203.	0.8	11
183	Electrochemical Performances of Nanocomposite Solid Oxide Fuel Cells Using Nano-Size Material LaNi_{0.2}Fe_{0.65}Cu_{0.15}O₃ as Cathode. Journal of Nanoscience and Nanotechnology, 2009, 9, 3824-3827.	0.9	11
184	GDC - Y 2 O 3 Oxide Based Two Phase Nanocomposite Electrolyte. Journal of Fuel Cell Science and Technology, 2011, 8, .	0.8	11
185	Integration design of membrane electrode assemblies in low temperature solid oxide fuel cell. International Journal of Hydrogen Energy, 2012, 37, 19365-19370.	7.1	11
186	Fast ion channels for crab shell-based electrolyte fuel cells. International Journal of Hydrogen Energy, 2019, 44, 15370-15376.	7.1	11
187	Low Temperature Solid Oxide Fuel Cells with SDC-Carbonate Electrolytes. Advanced Materials Research, 0, 105-106, 687-690.	0.3	10
188	Design of a 5â€kW advanced fuel cell polygeneration system. Wiley Interdisciplinary Reviews: Energy and Environment, 2012, 1, 173-180.	4.1	10
189	A commercial lithium battery LiMn-oxide for fuel cell applications. Materials Letters, 2014, 126, 85-88.	2.6	10
190	Synthesis and Electrochemical Performances of LiNiCuZn Oxides as Anode and Cathode Catalyst for Low Temperature Solid Oxide Fuel Cell. Journal of Nanoscience and Nanotechnology, 2012, 12, 5102-5105.	0.9	9
191	Significant enhancement of UV emission in ZnO nanorods subject to Ga+ ion beam irradiation. Nano Research, 2015, 8, 1857-1864.	10.4	9
192	Lanthanum-doped Calcium Manganite (La0.1Ca0.9MnO3) Cathode for Advanced Solid Oxide Fuel Cell (SOFC). Materials Today: Proceedings, 2016, 3, 2698-2706.	1.8	9
193	Polymer-assistant ceramic nanocomposite materials for advanced fuel cell technologies. Ceramics International, 2017, 43, 5484-5489.	4.8	9
194	Layered LiCoO2â€“LiFeO2 Heterostructure Composite for Semiconductor-Based Fuel Cells. Nanomaterials, 2021, 11, 1224.	4.1	9
195	Excellent oxygen reduction electrocatalytic activity of nanostructured CaFe2O4 particles embedded microporous Ni-Foam. International Journal of Hydrogen Energy, 2022, 47, 10331-10340.	7.1	9
196	La_{0.3}Sr_{0.2}Mn_{0.1}Zn_{0.4} Oxide-Sm_{0.2}Ce_{0.8}O_{1.9} (LSMZ-SDC) Nanocomposite Cathode for Low Temperature SOFCs. Journal of Nanoscience and Nanotechnology, 2012, 12, 4994-4997.	0.9	8
197	Microstructure and catalytic activity of Li 0.15 Ni 0.25 Cu 0.3 Zn 0.3 O 2âˆ’Î´ -Ce 0.8 Sm 0.2 O 1.9 -carbonate nanocomposite materials functioning as single component fuel cell. International Journal of Hydrogen Energy, 2014, 39, 19140-19147.	7.1	8
198	Analysis model for deformation mechanism of strip foundation of building: Considering shear effect of down-crossing tunnel under excavation. Journal of Central South University, 2021, 28, 2556-2573.	3.0	8

#	Article	IF	Citations
199	Analysis of a perovskite-ceria functional layer-based solid oxide fuel cell. International Journal of Hydrogen Energy, 2017, 42, 17536-17543.	7.1	7
200	Applications of hydrofluoride ceramic membranes for advanced fuel cell technology. International Journal of Energy Research, 2000, 24, 39-49.	4.5	6
201	Characterization and Development of Bio-Ethanol Solid Oxide Fuel Cell. Journal of Fuel Cell Science and Technology, 2011, 8, .	0.8	6
202	Single-component fuel cells fabricated by spark plasma sintering. RSC Advances, 2012, 2, 12140.	3.6	6
203	Intrinsic and extrinsic natures make changes on the ionic transportation - Response to: â€œComments on Int J Hydrogen Energy 42 (2017) 17495â€"17503â€. International Journal of Hydrogen Energy, 2019, 44, 28056-28064.	7.1	6
204	Calcium fluoride-based ceramic composites for fuel cell applications. Journal of Materials Science Letters, 1999, 18, 1039-1041.	0.5	5
205	Thermodynamic analysis of ITSOFC co-generation system fueled by ethanol. International Journal of Energy Research, 2011, 35, 1025-1031.	4.5	5
206	Advanced fuel cells: from materials and technologies to applications. International Journal of Energy Research, 2011, 35, 1023-1024.	4.5	5
207	Rare-earth oxideâ€"Li0.3Ni0.9Cu0.07Sr0.03O2-Î´ composites for advanced fuel cells. International Journal of Hydrogen Energy, 2017, 42, 22214-22221.	7.1	5
208	Charge transport study of perovskite solar cells through constructing electron transport channels. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1700089.	1.8	5
209	CaH2 containing halide electrolytes and fuel cells. Journal of Materials Science Letters, 1999, 18, 1807-1809.	0.5	4
210	Impedance spectroscopy study of gadolinia-doped ceria. Ionics, 1999, 5, 286-291.	2.4	4
211	Structural Studies on Ceria-Carbonate Composite Electrolytes. Key Engineering Materials, 2008, 368-372, 278-281.	0.4	4
212	LiAlO₂â€"LiNaCO₃ Composite Electrolyte for Solid Oxide Fuel Cells. Journal of Nanoscience and Nanotechnology, 2011, 11, 5402-5407.	0.9	4
213	Scaling Up and Characterization of Singleâ€Layer Fuel Cells. Energy Technology, 2016, 4, 967-972.	3.8	4
214	New developments in fuel cells: From traditional to innovative concepts (Preface for China-Europe) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 12595.	7.1	4
215	Influence of Blasting Vibration of MLEMC Shaft Foundation Pit on Adjacent High-Rise Frame Structure: A Case Study. Energies, 2020, 13, 5140.	3.1	4
216	Electrochemical Characterization on SDC/Na₂CO₃ Nanocomposite Electrolyte for Low Temperature Solid Oxide Fuel Cells. Journal of Nanoscience and Nanotechnology, 2011, 11, 5413-5417.	0.9	3

#	Article	IF	Citations
217	Microwave Sintered Nanocomposite Electrodes for Solid Oxide Fuel Cells. Journal of Nanoscience and Nanotechnology, 2011, 11, 5450-5454.	0.9	3
218	Novel K2Ti8O17 Anode via Na+/Al3+ Co-Intercalation Mechanism for Rechargeable Aqueous Al-Ion Battery with Superior Rate Capability. Nanomaterials, 2021, 11, 2332.	4.1	3
219	Nanotechnology Based Green Energy Conversion Devices with Multifunctional Materials at Low Temperatures. Recent Patents on Nanotechnology, 2017, 11, 85-92.	1.3	3
220	Optimizing Na0.5Bi0.5TiO3 electrolyte fuel cell through constructing heterostructures. Ceramics International, 2022, 48, 18116-18123.	4.8	3
221	Scaled up low-temperature SOFCs with symmetrical electrode for applications. Journal of Solid State Electrochemistry, 2015, 19, 2361-2368.	2.5	2
222	Electrochemical investigation of mixed metal oxide nanocomposite electrode for low temperature solid oxide fuel cell. International Journal of Modern Physics B, 2017, 31, 1750193.	2.0	2
223	Thinâ€Film Fuel Cells using a Sodium Silicate Binder with La_{0.6}Sr_{0.4}Co_{0.2}Fe_{0.8}O_{3âˆ’<i>Î´</i>} (LSCF) and LaCePr Oxides (LCP) Membranes. Energy Technology, 2018, 6, 312-317.	3.8	2
224	Fuel Cell Studies Using the CeO₂-La₂O₃ Based Electrolytes. Key Engineering Materials, 2007, 336-338, 490-493.	0.4	1
225	The role of band structure in Co- and Fe-co-doped Ba0.5Sr0.5Zr0.1Y0.1O3-Î´ perovskite semiconductor to design an electrochemical aptasensing platform: application in label-free detection of ochratoxin A using voltammetry. Mikrochimica Acta, 2021, 188, 177.	5.0	1
226	Validating the efficiency of Î³-Al2O3/La0.6Sr0.4Co0.2Fe0.8O3-Î´ double-layer electrolyte for low temperature solid oxide fuel cell. International Journal of Hydrogen Energy, 2021, 46, 40014-40021.	7.1	1
227	Natural salt and fluoride based electrolytes fuel cells. Ionics, 1999, 5, 472-476.	2.4	0
228	Proton conducting materials based on hydrofluorides. Journal of Materials Science Letters, 2000, 19, 971-973.	0.5	0
229	Nanocomposites for â€œnano green energyâ€•applications. , 2017, , 421-449.		0