Kevin Huang, Keqin Huang

List of Publications by Year
in descending order

220 papers	7,566 citations	57631 44 h-index	66788 78 g-index
226 all docs	226 docs citations	226 times ranked	7574 citing authors

#	Article	IF	Citations
1	SnS nanoparticles electrostatically anchored on three-dimensional N-doped graphene as an active and durable anode for sodium-ion batteries. Energy and Environmental Science, 2017, 10, 1757-1763.	15.6	431
2	Materials Synthesis Insights from Scientific Literature via Text Extraction and Machine Learning. Chemistry of Materials, 2017, 29, 9436-9444.	3.2	319
3	V₅S₈â€“graphite hybrid nanosheets as a high rate-capacity and stable anode material for sodium-ion batteries. Energy and Environmental Science, 2017, 10, 107-113.	15.6	274
4	A New rGOâ€Overcoated Sb₂Se₃ Nanorods Anode for Na⁺ Battery: In Situ Xâ€Ray Diffraction Study on a Live Sodiation/Desodiation Process. Advanced Functional Materials, 2017, 27, 1606242.	7.8	258
5	NaCa_{0.6}V₆O₁₆·3H₂O as an Ultraâ€Stable Cathode for Znâ€Ion Batteries: The Roles of Preâ€Inserted Dualâ€Cations and Structural Water in V₃O₈ Layer. Advanced Energy Materials, 2019, 9, 1901968.	10.2	196
6	A High Performing Znâ€Ion Battery Cathode Enabled by In Situ Transformation of V₂O₅ Atomic Layers. Angewandte Chemie - International Edition, 2020, 59, 17004-17011.	7.2	158
7	Synergistic H+/Zn2+ dual ion insertion mechanism in high-capacity and ultra-stable hydrated VO2 cathode for aqueous Zn-ion batteries. Energy Storage Materials, 2020, 29, 60-70.	9.5	157
8	Heterostructured Nanocubeâ€Shaped Binary Sulfide (SnCo)S₂ Interlaced with Sâ€Doped Graphene as a Highâ€Performance Anode for Advanced Na⁺ Batteries. Advanced Functional Materials, 2019, 29, 1807971.	7.8	154
9	A robust sulfur host with dual lithium polysulfide immobilization mechanism for long cycle life and high capacity Li-S batteries. Energy Storage Materials, 2019, 16, 344-353.	9.5	150
10	Stabilizing Nanostructured Solid Oxide Fuel Cell Cathode with Atomic Layer Deposition. Nano Letters, 2013, 13, 4340-4345.	4.5	149
11	A High Capacity Bilayer Cathode for Aqueous Zn-Ion Batteries. ACS Nano, 2019, 13, 14447-14458.	7.3	148
12	A novel solid oxide redox flow battery for grid energy storage. Energy and Environmental Science, 2011, 4, 4942.	15.6	137
13	Unraveling the role of structural water in bilayer V₂O₅ during Zn²⁺-intercalation: insights from DFT calculations. Journal of Materials Chemistry A, 2019, 7, 5612-5620.	5.2	132
14	Virtual screening of inorganic materials synthesis parameters with deep learning. Npj Computational Materials, 2017, 3, .	3.5	131
15	Hybridizing poly(vinylidene fluoride-co-hexafluoropropylene) with Li6.5La3Zr1.5Ta0.5O12 as a lithium-ion electrolyte for solid state lithium metal batteries. Chemical Engineering Journal, 2019, 367, 230-238.	6.6	127
16	High CO2 permeation flux enabled by highly interconnected three-dimensional ionic channels in selective CO2 separation membranes. Energy and Environmental Science, 2012, 5, 8310.	15.6	124
17	Cobalt single atoms supported on N-doped carbon as an active and resilient sulfur host for lithiumâ€“sulfur batteries. Energy Storage Materials, 2020, 28, 196-204.	9.5	117
18	Cathode-supported tubular solid oxide fuel cell technology: A critical review. Journal of Power Sources, 2013, 237, 84-97.	4.0	102

#	Article	IF	Citations
19	Recent advances in high-temperature carbonâ€“air fuel cells. Energy and Environmental Science, 2017, 10, 460-490.	15.6	98
20	CoSe@N-Doped Carbon Nanotubes as a Potassium-Ion Battery Anode with High Initial Coulombic Efficiency and Superior Capacity Retention. ACS Nano, 2021, 15, 1121-1132.	7.3	98
21	Siligraphene as a promising anode material for lithium-ion batteries predicted from first-principles calculations. Nano Energy, 2018, 49, 67-76.	8.2	95
22	Rich Alkali Ions Preintercalated Vanadium Oxides for Durable and Fast Zinc-Ion Storage. ACS Energy Letters, 2021, 6, 2111-2120.	8.8	94
23	Inorganic Materials Synthesis Planning with Literature-Trained Neural Networks. Journal of Chemical Information and Modeling, 2020, 60, 1194-1201.	2.5	85
24	Silver-molten carbonate composite as a new high-flux membrane for electrochemical separation of CO2 from flue gas. Journal of Membrane Science, 2012, 401-402, 190-194.	4.1	84
25	A Semisolid Electrolyte for Flexible Zn-Ion Batteries. ACS Applied Energy Materials, 2019, 2, 6904-6910.	2.5	77
26	Sr_{3â^'3x}Na_{3x}Si₃O_{9â^'1.5x} (x = 0.45) as a superior solid oxide-ion electrolyte for intermediate temperature-solid oxide fuel cells. Energy and Environmental Science, 2014, 7, 1680-1684.	15.6	75
27	Ta-Doped SrCoO_{3â^'Î´} as a promising bifunctional oxygen electrode for reversible solid oxide fuel cells: a focused study on stability. Journal of Materials Chemistry A, 2017, 5, 8989-9002.	5.2	75
28	Understanding the Dissolution and Phase Transformation Mechanisms in Aqueous Zn/Î±-V₂O₅ Batteries. Chemistry of Materials, 2021, 33, 4089-4098.	3.2	74
29	Atomic Layer Deposition Functionalized Composite SOFC Cathode La_{0.6}Sr_{0.4}Fe_{0.8}Co_{0.2}O_{3-Î´} -Gd_{0.2}Ce_{0.8}O_{1.9}: Enhanced Long-Term Stability. Chemistry of Materials, 2013, 25, 4224-4231.	3.2	73
30	Atomic Layer Deposition on Porous Materials: Problems with Conventional Approaches to Catalyst and Fuel Cell Electrode Preparation. Inorganics, 2018, 6, 34.	1.2	73
31	Sr2Fe4/3Mo2/3O6 as anodes for solid oxide fuel cells. Journal of Power Sources, 2010, 195, 8071-8074.	4.0	68
32	Reversible Molecular and Ionic Storage Mechanisms in High-Performance Zn_{0.1}V₂O₅Â·nH₂O Xerogel Cathode for Aqueous Zn-Ion Batteries. ACS Nano, 2021, 15, 10678-10688.	7.3	68
33	Solid oxide fuel cell technology. , 2009, , .		66
34	A renewable natural cotton derived and nitrogen/sulfur co-doped carbon as a high-performance sodium ion battery anode. Materials Today Energy, 2018, 8, 37-44.	2.5	61
35	Energy storage characteristics of a new rechargeable solid oxide ironâ€“air battery. RSC Advances, 2012, 2, 10163.	1.7	60
36	Bulk properties and transport mechanisms of a solid state antiperovskite Li-ion conductor Li₃OCl: insights from first principles calculations. Journal of Materials Chemistry A, 2018, 6, 1150-1160.	5.2	56

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37	pâ€“n Heterojunction on Ordered ZnO Nanowires/Polyaniline Microrods Double Array. Langmuir, 2012, 28, 3972-3978.	1.6	54
38	Electrode Materials for Practical Rechargeable Aqueous Znâ€ion Batteries: Challenges and Opportunities. ChemElectroChem, 2020, 7, 2714-2734.	1.7	54
39	A high-voltage activated high-erformance cathode for aqueous Zn-ion batteries. Energy Storage Materials, 2021, 38, 473-481.	9.5	53
40	Phosphoric acid-imbibed three-dimensional polyacrylamide/poly(vinyl alcohol) hydrogel as a new class of high-temperature proton exchange membrane. Journal of Power Sources, 2013, 229, 36-41.	4.0	52
41	An Allâ€Ceramic Solidâ€State Rechargeable Na⁺â€Battery Operated at Intermediate Temperatures. Advanced Functional Materials, 2014, 24, 5380-5384.	7.8	52
42	The current status of high temperature electrochemistry-based CO2 transport membranes and reactors for direct CO2 capture and conversion. Progress in Energy and Combustion Science, 2021, 82, 100888.	15.8	49
43	Roadmap for Sustainable Mixed Ionicâ€Electronic Conducting Membranes. Advanced Functional Materials, 2022, 32, .	7.8	49
44	A reversible and stable flake-like LiCoO2 cathode for lithium ion batteries. Chemical Communications, 2014, 50, 1962.	2.2	47
45	The Role of Pre-Lithiation in Activated Carbon/Li 4 Ti 5 O 12 Asymmetric Capacitors. Electrochimica Acta, 2017, 236, 443-450.	2.6	47
46	High conductivity mixed oxide-ion and carbonate-ion conductors supported by a prefabricated porous solid-oxide matrix. Electrochemistry Communications, 2011, 13, 554-557.	2.3	46
47	Enhanced reversibility and durability of a solid oxide Feâ€“air redox battery by carbothermic reaction derived energy storage materials. Chemical Communications, 2014, 50, 623-625.	2.2	44
48	Amorphous Na₂Si₂O₅ as a fast Na⁺ conductor: an ab initio molecular dynamics simulation. Journal of Materials Chemistry A, 2015, 3, 19920-19927.	5.2	44
49	Performance of Solid Oxide Iron-Air Battery Operated at 550Â°C. Journal of the Electrochemical Society, 2013, 160, A1241-A1247.	1.3	43
50	A high energy density all solid-state tungstenâ€“air battery. Chemical Communications, 2013, 49, 5357.	2.2	43
51	Photosynthetic apparatus of Rhodobacter sphaeroides exhibits prolonged charge storage. Nature Communications, 2019, 10, 902.	5.8	40
52	A Broad Stability Investigation of Nb-Doped SrCoO_{2.5+Î´}as a Reversible Oxygen Electrode for Intermediate-Temperature Solid Oxide Fuel Cells. Journal of the Electrochemical Society, 2016, 163, F891-F898.	1.3	39
53	Colossal oxygen vacancy formation at a fluorite-bixbyite interface. Nature Communications, 2020, 11, 1371.	5.8	39
54	Rational design and demonstration of a high-performance flexible Zn/V2O5 battery with thin-film electrodes and para-polybenzimidazole electrolyte membrane. Energy Storage Materials, 2020, 27, 418-425.	9.5	39

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55	Stretching Epitaxial La_{0.6}Sr_{0.4}CoO_{3â^Î´} for Fast Oxygen Reduction. Journal of Physical Chemistry C, 2017, 121, 25651-25658.	1.5	38
56	Binary Iron Sulfide as a Low-Cost and High-Performance Anode for Lithium-/Sodium-Ion Batteries. ACS Applied Materials & Interfaces, 2020, 12, 52888-52898.	4.0	38
57	First spectroscopic identification of pyrocarbonate for high CO2 flux membranes containing highly interconnected three dimensional ionic channels. Physical Chemistry Chemical Physics, 2013, 15, 13147.	1.3	37
58	Three-dimensional hierarchical graphene and CNT-coated spinel ZnMn2O4 as a high-stability anode for lithium-ion batteries. Electrochimica Acta, 2020, 338, 135853.	2.6	36
59	A first-principles investigation of Janus MoSSe as a catalyst for photocatalytic water-splitting. Applied Surface Science, 2021, 537, 147919.	3.1	36
60	Synthesis of a Homogeneously Porous Solid Oxide Matrix with Tunable Porosity and Pore Size. Journal of the American Ceramic Society, 2012, 95, 1832-1837.	1.9	35
61	Electrochemical separation of CO2 from a simulated flue gas with high-temperature ceramicâ€“carbonate membrane: New observations. Journal of Membrane Science, 2015, 477, 1-6.	4.1	35
62	Hydrophilic engineering of VO_x-based nanosheets for ambient electrochemical ammonia synthesis at neutral pH. Journal of Materials Chemistry A, 2020, 8, 5913-5918.	5.2	35
63	Combining proton conductor BaZr0.8Y0.2O3-Î´ with carbonate: Promoted densification and enhanced proton conductivity. Electrochemistry Communications, 2011, 13, 694-697.	2.3	34
64	Combining Electrochemical CO₂ Capture with Catalytic Dry Methane Reforming in a Single Reactor for Low-Cost Syngas Production. ACS Sustainable Chemistry and Engineering, 2016, 4, 7056-7065.	3.2	33
65	A High Performing Znâ€Ion Battery Cathode Enabled by In Situ Transformation of V₂O₅ Atomic Layers. Angewandte Chemie, 2020, 132, 17152-17159.	1.6	33
66	A new solid oxide molybdenumâ€“air redox battery. Journal of Materials Chemistry A, 2013, 1, 14858.	5.2	32
67	Cyclic Durability of a Solid Oxide Fe-Air Redox Battery Operated at 650Â°C. Journal of the Electrochemical Society, 2013, 160, A1716-A1719.	1.3	32
68	Surface modified silver-carbonate mixed conducting membranes for high flux CO2 separation with enhanced stability. Journal of Membrane Science, 2014, 453, 36-41.	4.1	32
69	Effective Ionic Conductivity of a Novel Intermediate-Temperature Mixed Oxide-Ion and Carbonate-Ion Conductor. Journal of the Electrochemical Society, 2011, 158, B225.	1.3	31
70	A superior mixed electron and carbonate-ion conducting metal-carbonate composite membrane for advanced flue-gas carbon capture. Journal of Membrane Science, 2016, 505, 225-230.	4.1	31
71	Combustion-assisted CO2 capture using MECC membranes. Journal of Membrane Science, 2012, 401-402, 323-332.	4.1	29
72	Stabilizing a high-temperature electrochemical silver-carbonate CO₂ capture membrane by atomic layer deposition of a ZrO₂ overcoat. Chemical Communications, 2016, 52, 9817-9820.	2.2	29

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73	Electrical conductivity and stability of A-site deficient (La, Sc) co-doped SrTiO3 mixed ionic-electronic conductor. Materials Letters, 2011, 65, 2624-2627.	1.3	28
74	A new composite cathode for intermediate temperature solid oxide fuel cells with zirconia-based electrolytes. Journal of Power Sources, 2017, 342, 419-426.	4.0	28
75	Effects of testing configurations and cell geometries on the performance of a SOFC: A modeling approach. International Journal of Hydrogen Energy, 2010, 35, 10495-10504.	3.8	27
76	Performance of a commercial cathode-supported solid oxide fuel cells prepared by single-step infiltration of an ion-conducting electrocatalyst. Journal of Power Sources, 2012, 199, 132-137.	4.0	26
77	A high-fidelity multiphysics model for the new solid oxide iron-air redox battery. Journal of Power Sources, 2015, 280, 195-204.	4.0	26
78	Remarkable O₂ permeation through a mixed conducting carbon capture membrane functionalized by atomic layer deposition. Journal of Materials Chemistry A, 2016, 4, 1828-1837.	5.2	26
79	Temporal and thermal evolutions of surface Sr-segregation in pristine and atomic layer deposition modified La_{0.6}Sr_{0.4}CoO_{3â^'Î´} epitaxial films. Journal of Materials Chemistry A, 2018, 6, 24378-24388.	5.2	26
80	Fast electrochemical CO2 transport through a dense metal-carbonate membrane: A new mechanistic insight. Journal of Membrane Science, 2014, 468, 373-379.	4.1	25
81	Flux of silver-carbonate membranes for post-combustion CO2 capture: The effects of membrane thickness, gas concentration and time. Journal of Membrane Science, 2014, 455, 162-167.	4.1	25
82	Stabilizing electrochemical carbon capture membrane with Al₂O₃ thin-film overcoating synthesized by chemical vapor deposition. Chemical Communications, 2015, 51, 2936-2938.	2.2	25
83	A highly active and Cr-resistant infiltrated cathode for practical solid oxide fuel cells. Journal of Materials Chemistry A, 2020, 8, 82-86.	5.2	25
84	H3PO4-imbibed three-dimensional polyacrylamide/polyacrylamide hydrogel as a high-temperature proton exchange membrane with excellent acid retention. RSC Advances, 2012, 2, 10238.	1.7	24
85	On the cause of conductivity degradation in sodium strontium silicate ionic conductor. Chemical Communications, 2015, 51, 9640-9642.	2.2	24
86	On the origin of high ionic conductivity in Na-doped SrSiO₃. Chemical Science, 2016, 7, 3667-3675.	3.7	23
87	A self-forming dual-phase membrane for high-temperature electrochemical CO₂ capture. Journal of Materials Chemistry A, 2017, 5, 12769-12773.	5.2	23
88	Self-Formed, Mixed-Conducting, Triple-Phase Membrane for Efficient CO₂/O₂ Capture from Flue Gas and in Situ Dry-Oxy Methane Reforming. ACS Sustainable Chemistry and Engineering, 2018, 6, 14162-14169.	3.2	23
89	A dynamic solid oxide fuel cell empowered by the built-in iron-bed solid fuel. Energy and Environmental Science, 2016, 9, 3746-3753.	15.6	22
90	MOF-derived iron as an active energy storage material for intermediate-temperature solid oxide ironâ€“air redox batteries. Chemical Communications, 2017, 53, 10564-10567.	2.2	22

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91	Role of CO₂ in Catalytic Ethane-to-Ethylene Conversion Using a High-Temperature CO₂ Transport Membrane Reactor. ACS Sustainable Chemistry and Engineering, 2019, 7, 6889-6897.	3.2	22
92	Molten Carbonates as an Effective Oxygen Reduction Catalyst for 550â€“650Â°C Solid Oxide Fuel Cells. Journal of the Electrochemical Society, 2013, 160, F958-F964.	1.3	21
93	An Intermediate-Temperature Solid Oxide Ironâ€“Air Redox Battery Operated on O^{2â€“}-Chemistry and Loaded with Pd-Catalyzed Iron-Based Energy Storage Material. ACS Energy Letters, 2016, 1, 1206-1211.	8.8	21
94	Thermal and Electrical Stability of Sr_{0.9}Y_{0.1}CoO_{2.5+Î´}as a Promising Cathode for Intermediate-Temperature Solid Oxide Fuel Cells. Journal of the Electrochemical Society, 2016, 163, F330-F335.	1.3	21
95	Atomic Layer Deposited Zirconia Overcoats as On-Board Strontium Getters for Improved Solid Oxide Fuel Cell Nanocomposite Cathode Durability. ACS Applied Energy Materials, 2020, 3, 4057-4067.	2.5	21
96	Life cycle analysis of a combined CO2 capture and conversion membrane reactor. Journal of Membrane Science, 2018, 549, 142-150.	4.1	20
97	A Comprehensive Review on the Development of Solidâ€State Metalâ€“Air Batteries Operated on Oxideâ€Ion Chemistry. Advanced Energy Materials, 2021, 11, 2000630.	10.2	20
98	Obtaining mixed ionic/electronic conductivity in perovskite oxides in a reducing environment: A computational prediction for doped SrTiO3. Solid State Ionics, 2012, 228, 37-45.	1.3	19
99	La0.9â^'xCaxCe0.1CrO3â^'Î´ as potential anode materials for solid oxide fuel cells. International Journal of Hydrogen Energy, 2012, 37, 10866-10873.	3.8	19
100	Phase Relationship and Ionic Conductivity in Naâ€“SrSiO₃ Ionic Conductor. Journal of the American Ceramic Society, 2016, 99, 324-331.	1.9	19
101	CO2 capture performance of silver-carbonate membrane with electrochemically dealloyed porous silver matrix. Journal of Membrane Science, 2017, 523, 439-445.	4.1	19
102	Understanding the role of carbon in alkaline oxygen electrocatalysis: A case study on La0.6Sr0.4CoO3-Î´/Vulcan carbon composite electrocatalyst. International Journal of Hydrogen Energy, 2019, 44, 2760-2769.	3.8	19
103	Hydrophobic hydrogel caged H3PO4 as a new class of high-temperature proton exchange membranes with enhanced acid retention. RSC Advances, 2013, 3, 3520.	1.7	18
104	A Multi-Physics Model for Solid Oxide Iron-Air Redox Flow Battery: Simulation of Discharge Behavior at High Current Density. Journal of the Electrochemical Society, 2013, 160, A2085-A2092.	1.3	18
105	A Combined Variable-Temperature Neutron Diffraction and Thermogravimetric Analysis Study on a Promising Oxygen Electrode, SrCo_{0.9}Nb_{0.1}O_{3â^'Î´}, for Reversible Solid Oxide Fuel Cells. ACS Applied Materials & Interfaces, 2017, 9, 34855-34864.	4.0	18
106	Study of a renewable biomass fueled SOFC: The effect of catalysts. International Journal of Hydrogen Energy, 2013, 38, 16518-16523.	3.8	17
107	Computational Analysis of Performance Limiting Factors for the New Solid Oxide Iron-air Redox Battery Operated at 550 Â°C. Electrochimica Acta, 2015, 178, 190-198.	2.6	17
108	Fast Li-Ion Transport in Amorphous Li₂Si₂O₅: An Ab Initio Molecular Dynamics Simulation. Journal of the Electrochemical Society, 2016, 163, A1401-A1407.	1.3	17

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109	Fabrication of La₂NiO₄nanoparticles as an efficient bifunctional cathode catalyst for rechargeable lithiumâ€“oxygen batteries. RSC Advances, 2016, 6, 17430-17437.	1.7	17
110	Synthesis and characterizations of A-site deficient perovskite Sr0.9Ti0.8â^'xGaxNb0.2O3. Materials Research Bulletin, 2011, 46, 57-61.	2.7	16
111	Toward Stabilizing Co₃O₄Nanoparticles as an Oxygen Reduction Reaction Catalyst for Intermediate-Temperature SOFCs. Journal of the Electrochemical Society, 2017, 164, F3001-F3007.	1.3	16
112	Dry-Oxy Methane Reforming with Mixed e^{â€“}/CO₃^{2â€“} Conducting Membranes. ACS Sustainable Chemistry and Engineering, 2017, 5, 5432-5439.	3.2	16
113	Electrochemical Capture of CO₂from Natural Gas Using a High-Temperature Ceramic-Carbonate Membrane. Journal of the Electrochemical Society, 2015, 162, E43-E46.	1.3	15
114	A novel intermediate-temperature all ceramic ironâ€“air redox battery: the effect of current density and cycle duration. RSC Advances, 2014, 4, 22621.	1.7	14
115	A new defect chemistry model for Nb-doped SrCoO2.5+Î´: The role of oxygen interstitials and delocalized-to-localized electron holes. Journal of Solid State Chemistry, 2017, 246, 97-106.	1.4	14
116	In situ synthesis of a high-performance bismuth oxide based composite cathode for low temperature solid oxide fuel cells. Chemical Communications, 2019, 55, 2801-2804.	2.2	14
117	Surface enhanced performance of La0.6Sr0.4Co0.2Fe0.8O3-Î´ cathodes by infiltration Pr-Ni-Mn-O progress. Journal of Alloys and Compounds, 2022, 902, 163337.	2.8	14
118	Cathode Polarizations of a Cathode-Supported Solid Oxide Fuel Cell. Journal of the Electrochemical Society, 2010, 157, B1471.	1.3	13
119	Beneficial effects of Mg-excess in La1-xSrxGa1-yMgy+zO3-Î´ as solid electrolyte. Solid State Ionics, 2012, 214, 56-61.	1.3	13
120	Promoting Electrocatalytic Activity of a Composite SOFC Cathode La_{0.8}Sr_{0.2}MnO_{3+Î´}/Ce_{0.8}Gd_{0.2}O_{2-Î´}with Molten Carbonates. Journal of the Electrochemical Society, 2014, 161, F226-F232.	1.3	13
121	Plasma-spray derived, corrosion-resistive electrolyte for liquid antimony anode direct carbon fuel cell. Journal of Power Sources, 2018, 403, 76-81.	4.0	13
122	Unraveling Oxygen Electrocatalysis Mechanisms on a Thin-Film Oxygen-Deficient Perovskite La_{0.6}Sr_{0.4}CoO_{3â^'Î´}. ACS Applied Energy Materials, 2018, 1, 3937-3946.	2.5	13
123	Determining the kinetic rate constants of Fe3O4-to-Fe and FeO-to-Fe reduction by H2. Chemical Engineering Journal, 2022, 434, 134771.	6.6	13
124	A novel sulfur-impregnated porous carbon matrix as a cathode material for a lithiumâ€“sulfur battery. RSC Advances, 2016, 6, 64228-64233.	1.7	12
125	Simulating Charge Transport in Solid Oxide Mixed Ionic and Electronic Conductors: Nernst-Planck Theory vs Modified Fick's Law. Journal of the Electrochemical Society, 2016, 163, A2702-A2719.	1.3	12
126	Performance analysis of a 550MWe solid oxide fuel cell and air turbine hybrid system powered by coal-derived syngas. Energy, 2021, 222, 119917.	4.5	12

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127	H2O-enhanced CO2 transport through a proton conducting ceramic- molten carbonate dual-phase membrane. Journal of Membrane Science, 2022, 650, 120421.	4.1	12
128	Enhanced methanol oxidation and CO tolerance using CeO2-added eggshell membrane-templated Pd network electrocatalyst. RSC Advances, 2012, 2, 11465.	1.7	11
129	Energy efficiency of an intermediate-temperature solid oxide ironâ€“air redox battery. Journal of Energy Storage, 2015, 3, 1-9.	3.9	11
130	Synergetic proton conduction in BaZr0.8Y0.2O3-Î´â€“carbonate composite electrolyte for intermediate-temperature solid oxide fuel cells. Solid State Ionics, 2015, 279, 66-71.	1.3	11
131	Density functional theory study of oxygen migration in molten carbonate. Journal of Power Sources, 2016, 305, 161-166.	4.0	11
132	Defect chemistry and transport properties of SrCo1â^'xTaxO2.5+Î´ as a promising oxygen electrocatalyst for reversible solid oxide fuel cells. Solid State Ionics, 2017, 309, 48-57.	1.3	11
133	Transport properties of SrCo0.9Nb0.1O3-Î´ and SrCo0.9Ta0.1O3-Î´ mixed conductors determined by combined oxygen permeation measurement and phenomenological modeling. Journal of Membrane Science, 2018, 568, 47-54.	4.1	11
134	The Performance of Syngas-Fueled SOFCs Predicted by a Reduced Order Model (ROM): Temperature and Fuel Composition Effects. Journal of the Electrochemical Society, 2018, 165, F786-F798.	1.3	11
135	Fe₃O₄/ZrO₂ Composite as a Robust Chemical Looping Oxygen Carrier: A Kinetics Study on the Reduction Process. ACS Applied Energy Materials, 2021, 4, 7091-7100.	2.5	11
136	Performance of vapor-fed direct dimethyl ether fuel cell utilizing high temperature polybenzimidazole polymer electrolyte membrane. Journal of Power Sources, 2012, 216, 471-474.	4.0	10
137	Heat Balance in a Planar Solid Oxide Iron-Air Redox Battery: A Computational Analysis. Journal of the Electrochemical Society, 2015, 162, F821-F833.	1.3	10
138	Energetics of proton transfer in alkali carbonates: a first principles calculation. RSC Advances, 2015, 5, 56205-56209.	1.7	10
139	DFT Study of Oxygen Dissociation in Molten Carbonate. Journal of Physical Chemistry A, 2015, 119, 8806-8812.	1.1	10
140	Na-X zeolite templated and sulfur-impregnated porous carbon as the cathode for a high-performance Liâ€“S battery. RSC Advances, 2016, 6, 9117-9123.	1.7	10
141	Fuel utilization and fuel sensitivity of solid oxide fuel cells. Journal of Power Sources, 2011, 196, 2763-2767.	4.0	9
142	One-Step Infiltration of Mixed Conducting Electrocatalysts for Reducing Cathode Polarization of a Commercial Cathode-Supported SOFC. Electrochemical and Solid-State Letters, 2012, 15, B1.	2.2	9
143	A New Ceramicâ€“Carbonate Dual-Phase Membrane for High-Flux CO₂ Capture. ACS Sustainable Chemistry and Engineering, 2021, 9, 5454-5460.	3.2	9
144	Metallopolymer as a Solid Electrolyte for Rechargeable Zn-Metal Alkaline Batteries. , 2021, 3, 799-806.		9

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145	Crystallization of amorphous Na2Si2O5 as a Na-ion conductor. Solid State Ionics, 2016, 296, 63-70.	1.3	8
146	Multiphysics modeling of solid-oxide ironâ€“air redox battery: analysis and optimization of operation and performance parameters. Science Bulletin, 2016, 61, 1345-1354.	4.3	8
147	An Active and Robust Bifunctional Oxygen Electrocatalyst through Carbonâ€Free Hierarchical Functionalization. Angewandte Chemie - International Edition, 2017, 56, 12826-12827.	7.2	8
148	Proton-mediated energy storage in intermediate-temperature solid-oxide metalâ€“air batteries. Journal of Materials Chemistry A, 2018, 6, 20659-20662.	5.2	8
149	Performance and stability of SrCo0.9Nb0.1O3-Î´-(La0.60Sr0.40)0.95(Co0.20Fe0.80)O3-Î´ bilayer cathode for intermediate-temperature solid oxide fuel cells. Journal of Power Sources, 2019, 414, 24-30.	4.0	8
150	Efficient and selective ethane-to-ethylene conversion assisted by a mixed proton and electron conducting membrane. Journal of Membrane Science, 2020, 599, 117840.	4.1	8
151	Precautions of Using Three-Electrode Configuration to Measure Electrode Overpotential in Solid Oxide Electrochemical Cells: Insights from Finite Element Modeling. Journal of the Electrochemical Society, 2020, 167, 124501.	1.3	8
152	Temperature-dependent residual stresses in plasma sprayed electrolyte thin-film on the cathode substrate of a solid oxide fuel cell. Solid State Ionics, 2010, 181, 943-946.	1.3	7
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