

Guntae Kim

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/761511/publications.pdf>

Version: 2024-02-01

125
papers

6,914
citations

46918

47
h-index

64668

79
g-index

132
all docs

132
docs citations

132
times ranked

5797
citing authors

#	ARTICLE	IF	CITATIONS
1	Layered oxygen-deficient double perovskite as an efficient and stable anode for direct hydrocarbon solid oxide fuel cells. <i>Nature Materials</i> , 2015, 14, 205-209.	13.3	605
2	Exsolution trends and co-segregation aspects of self-grown catalyst nanoparticles in perovskites. <i>Nature Communications</i> , 2017, 8, 15967.	5.8	305
3	Highly efficient and robust cathode materials for low-temperature solid oxide fuel cells: PrBa _{0.5} Sr _{0.5} Co _{2-x} FexO _{5+δ} . <i>Scientific Reports</i> , 2013, 3, 2426.	1.6	285
4	Triple-Conducting Layered Perovskites as Cathode Materials for Proton-Conducting Solid Oxide Fuel Cells. <i>ChemSusChem</i> , 2014, 7, 2811-2815.	3.6	257
5	A Highly Efficient and Robust Cation Ordered Perovskite Oxide as a Bifunctional Catalyst for Rechargeable Zinc-Air Batteries. <i>ACS Nano</i> , 2017, 11, 11594-11601.	7.3	219
6	Hybrid-solid oxide electrolysis cell: A new strategy for efficient hydrogen production. <i>Nano Energy</i> , 2018, 44, 121-126.	8.2	209
7	Perovskite as a Cathode Material: A Review of its Role in Solid-Oxide Fuel Cell Technology. <i>ChemElectroChem</i> , 2016, 3, 511-530.	1.7	197
8	Development of Double-Perovskite Compounds as Cathode Materials for Low-Temperature Solid Oxide Fuel Cells. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 13064-13067.	7.2	176
9	In-situ local phase-transitioned MoSe ₂ in La _{0.5} Sr _{0.5} CoO _{3-δ} heterostructure and stable overall water electrolysis over 1000 hours. <i>Nature Communications</i> , 2019, 10, 1723.	5.8	143
10	Electrochemical integration of amorphous NiFe (oxy)hydroxides on surface-activated carbon fibers for high-efficiency oxygen evolution in alkaline anion exchange membrane water electrolysis. <i>Journal of Materials Chemistry A</i> , 2021, 9, 14043-14051.	5.2	127
11	Defect-Free Encapsulation of Fe ⁰ in 2D Fused Organic Networks as a Durable Oxygen Reduction Electrocatalyst. <i>Journal of the American Chemical Society</i> , 2018, 140, 1737-1742.	6.6	124
12	Etched Graphite with Internally Grown Si Nanowires from Pores as an Anode for High Density Li-Ion Batteries. <i>Nano Letters</i> , 2013, 13, 3403-3407.	4.5	120
13	Cation-swapped homogeneous nanoparticles in perovskite oxides for high-power density. <i>Nature Communications</i> , 2019, 10, 697.	5.8	119
14	SOFC Anodes Based on Infiltration of La _{0.3} Sr _{0.7} TiO ₃ . <i>Journal of the Electrochemical Society</i> , 2008, 155, B1179.	1.3	118
15	Enhancing Bifunctional Electrocatalytic Activities via Metal d-Band Center Lift Induced by Oxygen Vacancy on the Subsurface of Perovskites. <i>ACS Catalysis</i> , 2020, 10, 4664-4670.	5.5	116
16	Synergistic interaction of perovskite oxides and N-doped graphene in versatile electrocatalyst. <i>Journal of Materials Chemistry A</i> , 2019, 7, 2048-2054.	5.2	104
17	Synergistic Coupling Derived Cobalt Oxide with Nitrogenated Holey Two-Dimensional Matrix as an Efficient Bifunctional Catalyst for Metal-Air Batteries. <i>ACS Nano</i> , 2019, 13, 5502-5512.	7.3	87
18	A Tailored Bifunctional Electrocatalyst: Boosting Oxygen Reduction/Evolution Catalysis via Electron Transfer Between N-Doped Graphene and Perovskite Oxides. <i>Small</i> , 2018, 14, e1802767.	5.2	85

#	ARTICLE	IF	CITATIONS
19	Porous Cobalt Phosphide Polyhedrons with Iron Doping as an Efficient Bifunctional Electrocatalyst. <i>Small</i> , 2017, 13, 1701167.	5.2	82
20	Highly active dry methane reforming catalysts with boosted in situ grown Ni-Fe nanoparticles on perovskite via atomic layer deposition. <i>Science Advances</i> , 2020, 6, eabb1573.	4.7	79
21	Optimization of Sr content in layered $\text{SmBa}_{1-x}\text{Sr}_x\text{Co}_2\text{O}_{5+\delta}$ perovskite cathodes for intermediate-temperature solid oxide fuel cells. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 18381-18388.	3.8	77
22	Antimony-doped graphene nanoplatelets. <i>Nature Communications</i> , 2015, 6, 7123.	5.8	77
23	The effect of calcium doping on the improvement of performance and durability in a layered perovskite cathode for intermediate-temperature solid oxide fuel cells. <i>Journal of Materials Chemistry A</i> , 2015, 3, 6088-6095.	5.2	77
24	Self-assembled alloy nanoparticles in a layered double perovskite as a fuel oxidation catalyst for solid oxide fuel cells. <i>Journal of Materials Chemistry A</i> , 2018, 6, 15947-15953.	5.2	77
25	Review on exsolution and its driving forces in perovskites. <i>JPhys Energy</i> , 2020, 2, 032001.	2.3	75
26	High Performance SOFC Cathode Prepared by Infiltration of $\text{La}_{1-x}\text{Ni}_x\text{O}_{3-\delta}$ ($x=0, 1, 2, \text{ and } 3$) in Porous YSZ. <i>Journal of the Electrochemical Society</i> , 2011, 158, B995.	1.3	74
27	Chemically Stable Perovskites as Cathode Materials for Solid Oxide Fuel Cells: $\text{La}_{1-x}\text{Ba}_x\text{Sr}_{0.5}\text{Co}_{0.8}\text{Fe}_{0.2}\text{O}_{3-\delta}$. <i>ChemSusChem</i> , 2014, 7, 1669-1675.	3.6	74
28	Thermodynamic and electrical properties of $\text{Ba}_{0.5}\text{Sr}_{0.5}\text{Co}_{0.8}\text{Fe}_{0.2}\text{O}_{3-\delta}$ and $\text{La}_{0.6}\text{Sr}_{0.4}\text{Co}_{0.2}\text{Fe}_{0.8}\text{O}_{3-\delta}$ for intermediate-temperature solid oxide fuel cells. <i>Electrochimica Acta</i> , 2013, 89, 372-376.	2.6	73
29	Achieving High Efficiency and Eliminating Degradation in Solid Oxide Electrochemical Cells Using High Oxygen-Capacity Perovskite. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 12512-12515.	7.2	73
30	Oxygen deficient layered double perovskite as an active cathode for CO_2 electrolysis using a solid oxide conductor. <i>Faraday Discussions</i> , 2015, 182, 227-239.	1.6	71
31	Nanocomposites: A New Opportunity for Developing Highly Active and Durable Bifunctional Air Electrodes for Reversible Protonic Ceramic Cells. <i>Advanced Energy Materials</i> , 2021, 11, 2101899.	10.2	70
32	The electrochemical and thermodynamic characterization of $\text{PrBaCo}_{2-x}\text{Fe}_x\text{O}_{5+\delta}$ ($x=0, 0.5, 1$) infiltrated into yttria-stabilized zirconia scaffold as cathodes for solid oxide fuel cells. <i>Journal of Power Sources</i> , 2012, 201, 10-17.	4.0	68
33	Composite cathodes composed of $\text{NdBa}_{0.5}\text{Sr}_{0.5}\text{Co}_2\text{O}_{5+\delta}$ and $\text{Ce}_{0.9}\text{Gd}_{0.1}\text{O}_{1.95}$ for intermediate-temperature solid oxide fuel cells. <i>Journal of Materials Chemistry A</i> , 2013, 1, 515-519.	5.2	66
34	Enhancing Thermocatalytic Activities by Upshifting the d-Band Center of Exsolved $\text{Co}_x\text{Ni}_y\text{Fe}$ Ternary Alloy Nanoparticles for the Dry Reforming of Methane. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 15912-15919.	7.2	65
35	Influence of Ca-doping in layered perovskite $\text{PrBaCo}_2\text{O}_{5+\delta}$ on the phase transition and cathodic performance of a solid oxide fuel cell. <i>Journal of Materials Chemistry A</i> , 2016, 4, 6479-6486.	5.2	64
36	Phase Engineering of Transition Metal Dichalcogenides with Unprecedentedly High Phase Purity, Stability, and Scalability via Molten-Metal-Assisted Intercalation. <i>Advanced Materials</i> , 2020, 32, e2001889.	11.1	63

#	ARTICLE	IF	CITATIONS
37	Conductivity-Dependent Completion of Oxygen Reduction on Oxide Catalysts. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 15730-15733.	7.2	62
38	Promotion of oxygen reduction reaction on a double perovskite electrode by a water-induced surface modification. <i>Energy and Environmental Science</i> , 2021, 14, 1506-1516.	15.6	62
39	Investigation of layered perovskite type $\text{NdBa}_{1-x}\text{Sr}_x\text{Co}_2\text{O}_{5+x}$ ($x = 0, 0.25, 0.5, 0.75, \text{ and } 1.0$) cathodes for intermediate-temperature solid oxide fuel cells. <i>Electrochimica Acta</i> , 2013, 100, 44-50.	2.6	60
40	Polypyrrole-assisted oxygen electrocatalysis on perovskite oxides. <i>Energy and Environmental Science</i> , 2017, 10, 523-527.	15.6	60
41	Optimization of $\text{La}_{1-x}\text{Sr}_x\text{CoO}_3$ perovskite cathodes for intermediate temperature solid oxide fuel cells through the analysis of crystal structure and electrical properties. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 20806-20811.	3.8	58
42	Nanostructured Double Perovskite Cathode With Low Sintering Temperature For Intermediate Temperature Solid Oxide Fuel Cells. <i>ChemSusChem</i> , 2015, 8, 3153-3158.	3.6	56
43	Cloud-like graphene nanoplatelets on $\text{Nd}_{0.5}\text{Sr}_{0.5}\text{Co}_3$ nanorods as an efficient bifunctional electrocatalyst for hybrid Li-air batteries. <i>Journal of Materials Chemistry A</i> , 2016, 4, 2122-2127.	5.2	54
44	A highly efficient composite cathode for proton-conducting solid oxide fuel cells. <i>Journal of Power Sources</i> , 2020, 451, 227812.	4.0	54
45	SOFC Anodes Based on LST-YSZ Composites and on $\text{Y}_{0.04}\text{Ce}_{0.48}\text{Zr}_{0.48}\text{O}_2$. <i>Journal of the Electrochemical Society</i> , 2008, 155, B360.	1.3	53
46	A collaborative study of sintering and composite effects for a $\text{PrBa}_{0.5}\text{Sr}_{0.5}\text{Co}_{1.5}\text{Fe}_{0.5}\text{O}_{5+\delta}$ IT-SOFC cathode. <i>RSC Advances</i> , 2014, 4, 1775-1781.	1.7	50
47	Self-Decorated MnO Nanoparticles on Double Perovskite Solid Oxide Fuel Cell Anode by <i>in Situ</i> Exsolution. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 9207-9213.	3.2	50
48	Thermodynamic and electrical characteristics of $\text{NdBaCo}_2\text{O}_{5+\delta}$ at various oxidation and reduction states. <i>Journal of Materials Chemistry</i> , 2011, 21, 439-443.	6.7	49
49	Correlation between fast oxygen kinetics and enhanced performance in Fe doped layered perovskite cathodes for solid oxide fuel cells. <i>Journal of Materials Chemistry A</i> , 2015, 3, 15082-15090.	5.2	48
50	Fe@N-Graphene Nanoplatelet-Embedded Carbon Nanofibers as Efficient Electrocatalysts for Oxygen Reduction Reaction. <i>Advanced Science</i> , 2016, 3, 1500205.	5.6	47
51	Effect of Mn on the electrochemical properties of a layered perovskite $\text{NdBa}_{0.5}\text{Sr}_{0.5}\text{Co}_{2-x}\text{Mn}_x\text{O}_5$ ($x = 0, 0.1, 0.2, 0.3, 0.4, 0.5$). <i>Tj ETQq</i> , 2016, 1, 0.784314	2.6	45
52	Progress and potential for symmetrical solid oxide electrolysis cells. <i>Matter</i> , 2022, 5, 482-514.	5.0	44
53	A Composite Catalyst Based on Perovskites for Overall Water Splitting in Alkaline Conditions. <i>ChemElectroChem</i> , 2019, 6, 1520-1524.	1.7	42
54	Effect of Fe Doping on Layered $\text{GdBa}_{0.5}\text{Sr}_{0.5}\text{Co}_2$ Perovskite Cathodes for Intermediate Temperature Solid Oxide Fuel Cells. <i>Journal of the American Ceramic Society</i> , 2014, 97, 651-656.	1.9	41

#	ARTICLE	IF	CITATIONS
55	Electrochemical investigation of strontium doping effect on high performance $\text{Pr}_{1-x}\text{Sr}_x\text{CoO}_3$ ($x=0.1$) Tj ETQq1 1 0.784314 rgBT /Ov Sources, 2012, 210, 172-177.	4.0	40
56	Efficient CO ₂ Utilization via a Hybrid Na-CO ₂ System Based on CO ₂ Dissolution. IScience, 2018, 9, 278-285.	1.9	40
57	High redox and performance stability of layered $\text{SmBa}_{0.5}\text{Sr}_{0.5}\text{Co}_{1.5}\text{Cu}_{0.5}\text{O}_{5+\delta}$ perovskite cathodes for intermediate-temperature solid oxide fuel cells. Physical Chemistry Chemical Physics, 2013, 15, 19906.	1.3	38
58	Mechanistic insights into the phase transition and metal ex-solution phenomena of $\text{Pr}_{0.5}\text{Ba}_{0.5}\text{Mn}_{0.85}\text{Co}_{0.15}\text{O}_{3+\delta}$ from simple to layered perovskite under reducing conditions and enhanced catalytic activity. Energy and Environmental Science, 2021, 14, 873-882.	15.6	37
59	Tailoring Ni-based catalyst by alloying with transition metals (M = Ni, Co, Cu, and Fe) for direct hydrocarbon utilization of energy conversion devices.. Electrochimica Acta, 2017, 225, 399-406.	2.6	36
60	Tradeoff optimization of electrochemical performance and thermal expansion for Co-based cathode material for intermediate-temperature solid oxide fuel cells. Electrochimica Acta, 2014, 125, 683-690.	2.6	34
61	All-Nanomat Lithium-Ion Batteries: A New Cell Architecture Platform for Ultrahigh Energy Density and Mechanical Flexibility. Advanced Energy Materials, 2017, 7, 1701099.	10.2	34
62	Enhanced reducibility of ceria-YSZ composites in solid oxide electrodes. Journal of Materials Chemistry, 2008, 18, 2386.	6.7	33
63	Highly Efficient CO ₂ Utilization via Aqueous Zinc or Aluminum-CO ₂ Systems for Hydrogen Gas Evolution and Electricity Production. Angewandte Chemie - International Edition, 2019, 58, 9506-9511.	7.2	33
64	Chemical compatibility, redox behavior, and electrochemical performance of $\text{Nd}_{1-x}\text{Sr}_x\text{CoO}_3$ cathodes based on $\text{Ce}_{1.9}\text{Gd}_{0.1}\text{O}_{1.95}$ for intermediate-temperature solid oxide fuel cells. Electrochimica Acta, 2012, 81, 217-223.	2.6	31
65	A rigorous electrochemical ammonia electrolysis protocol with <i>in operando</i> quantitative analysis. Journal of Materials Chemistry A, 2021, 9, 11571-11579.	5.2	29
66	Comparative characterization of thermodynamic, electrical, and electrochemical properties of $\text{Sm}_{0.5}\text{Sr}_{0.5}\text{Co}_{1-x}\text{Nb}_x\text{O}_3$ ($x=0, 0.05$, and 0.1) as cathode materials in intermediate temperature solid oxide fuel cells. Journal of Power Sources, 2013, 226, 1-7.	4.0	28
67	Investigation of the Fe doping effect on the B-site of the layered perovskite $\text{PrBa}_{0.8}\text{Ca}_{0.2}\text{Co}_2\text{O}_{5+\delta}$ for a promising cathode material of the intermediate-temperature solid oxide fuel cells. International Journal of Hydrogen Energy, 2019, 44, 1088-1095.	3.8	28
68	Unveiling the key factor for the phase reconstruction and exsolved metallic particle distribution in perovskites. Nature Communications, 2021, 12, 6814.	5.8	28
69	Electrochemical properties of an ordered perovskite $\text{LaBaCo}_2\text{O}_{5+\delta}\text{-Ce}_{0.9}\text{Gd}_{0.1}\text{O}_2$ composite cathode with strontium doping for intermediate-temperature solid oxide fuel cells. Electrochemistry Communications, 2013, 34, 5-8.	2.3	27
70	Monolithic heteronanomat paper air cathodes toward origami-foldable/rechargeable Zn-air batteries. Journal of Materials Chemistry A, 2019, 7, 24231-24238.	5.2	27
71	Electrokinetic Proton Transport in Triple (H ⁺ /O ²⁺ /e ⁻) Conducting Oxides as a Key Descriptor for Highly Efficient Protonic Ceramic Fuel Cells. Advanced Science, 2021, 8, e2004099.	5.6	27
72	Self-reconstructed interlayer derived by in-situ Mn diffusion from $\text{La}_{0.5}\text{Sr}_{0.5}\text{MnO}_3$ via atomic layer deposition for an efficient bi-functional electrocatalyst. Nano Energy, 2020, 71, 104564.	8.2	26

#	ARTICLE	IF	CITATIONS
73	Thermodynamic and Electrical Properties of Layered Perovskite $\text{NdBaCo}_{2-x}\text{Fe}_x\text{O}_{5+\delta}$ /YSZ ($x=0, 1$) Composites for Intermediate Temperature SOFC Cathodes. <i>Journal of the Electrochemical Society</i> , 2011, 158, B632.	1.3	25
74	Structural, electrical and electrochemical characteristics of $\text{La}_{0.1}\text{Sr}_{0.9}\text{Co}_{1-x}\text{Nb}_x\text{O}_{3+\delta}$ as a cathode material for intermediate temperature solid oxide fuel cells. <i>RSC Advances</i> , 2014, 4, 18710-18717.	1.7	25
75	Nano-perovskite oxide prepared via inverse microemulsion mediated synthesis for catalyst of lithium-air batteries. <i>Electrochimica Acta</i> , 2018, 275, 248-255.	2.6	25
76	Co_3O_4 Exsolved Defective Layered Perovskite Oxide for Energy Storage Systems. <i>ACS Energy Letters</i> , 2020, 5, 3828-3836.	8.8	25
77	Decreasing interfacial losses with catalysts in $\text{La}_{0.9}\text{Ca}_{0.1}\text{FeO}_3$ membranes for syngas production. <i>Applied Catalysis A: General</i> , 2014, 486, 259-265.	2.2	23
78	Structural, Electrical, and Electrochemical Characteristics of $\text{LnBa}_{0.5}\text{Sr}_{0.5}\text{Co}_{1.5}\text{Fe}_{0.5}\text{O}_{5+\delta}$ ($\text{Ln}=\text{Pr}$) Tj FTQq000rgBT/Ove 2017, 5, 1337-1343.	1.8	23
79	Electrochemical properties of B-site Ni doped layered perovskite cathodes for IT-SOFCs. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 20791-20798.	3.8	22
80	Influence of Cathode Porosity on High Performance Protonic Ceramic Fuel Cells with $\text{PrBa}_{0.5}\text{Sr}_{0.5}\text{Co}_{1.5}\text{Fe}_{0.5}\text{O}_{5+\delta}$ Cathode. <i>Journal of the Electrochemical Society</i> , 2018, 165, F1098-F1102.	1.3	22
81	Advanced Electrochemical Properties of $\text{PrBa}_{0.5}\text{Sr}_{0.5}\text{Co}_{1.9}\text{Ni}_{0.1}\text{O}_{5+\delta}$ as a Bifunctional Catalyst for Rechargeable Zinc-Air Batteries. <i>ChemElectroChem</i> , 2019, 6, 3154-3159.	1.7	21
82	Investigation of a Layered Perovskite for IT-SOFC Cathodes: B-Site Fe-Doped $\text{YBa}_{0.5}\text{Sr}_{0.5}\text{Co}_{2-x}\text{Fe}_x\text{O}_{5+\delta}$. <i>Journal of the Electrochemical Society</i> , 2016, 163, F1489-F1495.	1.3	20
83	An Efficient Oxygen Evolution Catalyst for Hybrid Lithium Air Batteries: Almond Stick Type Composite of Perovskite and Cobalt Oxide. <i>Journal of the Electrochemical Society</i> , 2016, 163, A1893-A1897.	1.3	19
84	Scandium Doping Effect on a Layered Perovskite Cathode for Low-Temperature Solid Oxide Fuel Cells (LT-SOFCs). <i>Applied Sciences (Switzerland)</i> , 2018, 8, 2217.	1.3	19
85	Effects of composite cathode on electrochemical and redox properties for intermediate-temperature solid oxide fuel cells. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 20812-20818.	3.8	18
86	Strategy for Enhancing Interfacial Effect of Bifunctional Electrocatalyst: Infiltration of Cobalt Nanooxide on Perovskite. <i>Advanced Materials Interfaces</i> , 2018, 5, 1800123.	1.9	18
87	A New Strategy for Outstanding Performance and Durability in Acidic Fuel Cells: A Small Amount Pt Anchored on Fe, N-Doped Graphene Nanoplatelets. <i>ChemElectroChem</i> , 2018, 5, 2857-2862.	1.7	18
88	A review on infiltration techniques for energy conversion and storage devices: from fundamentals to applications. <i>Sustainable Energy and Fuels</i> , 2021, 5, 5024-5037.	2.5	18
89	Promotion of the oxygen evolution reaction via the reconstructed active phase of perovskite oxide. <i>Journal of Materials Chemistry A</i> , 2022, 10, 2271-2279.	5.2	17
90	Oxidation-reduction behavior of $\text{La}_{0.8}\text{Sr}_{0.2}\text{ScMn}_{1-y}\text{O}_{3\pm}$ ($y=0.2, 0.3, 0.4$): Defect structure, thermodynamic and electrical properties. <i>Solid State Ionics</i> , 2012, 228, 25-31.	1.3	16

#	ARTICLE	IF	CITATIONS
91	Highly Efficient Layer-by-Layer-Assisted Infiltration for High-Performance and Cost-Effective Fabrication of Nanoelectrodes. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 17352-17357.	4.0	16
92	Identifying the electrocatalytic active sites of a Ru-based catalyst with high Faraday efficiency in CO ₂ -saturated media for an aqueous Zn-CO ₂ system. <i>Journal of Materials Chemistry A</i> , 2020, 8, 14927-14934.	5.2	16
93	Concurrent promotion of phase transition and bimetallic nanocatalyst exsolution in perovskite oxides driven by Pd doping to achieve highly active bifunctional fuel electrodes for reversible solid oxide electrochemical cells. <i>Applied Catalysis B: Environmental</i> , 2022, 314, 121517.	10.8	16
94	Mixing effects of Cr ₂ O ₃ -PrBaMn ₂ O ₅ for increased redox cycling properties of Fe powder for a solid-oxide Fe-air rechargeable battery. <i>Journal of Materials Chemistry A</i> , 2017, 5, 364-371.	5.2	15
95	Scale-Down and Sr-Doping Effects on La ₄ Ni ₃ O ₁₀ -YSZ Nanocomposite Cathodes for IT-SOFCs. <i>Journal of the Electrochemical Society</i> , 2014, 161, F1468-F1473.	1.3	14
96	Achieving High Efficiency and Eliminating Degradation in Solid Oxide Electrochemical Cells Using High Oxygen-Capacity Perovskite. <i>Angewandte Chemie</i> , 2016, 128, 12700-12703.	1.6	12
97	Probing One-Dimensional Oxygen Vacancy Channels Driven by Cation-Anion Double Ordering in Perovskites. <i>Nano Letters</i> , 2020, 20, 8353-8359.	4.5	12
98	Precise Modulation of Triple-Phase Boundaries towards a Highly Functional Exsolved Catalyst for Dry Reforming of Methane under a Dilution-Free System. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	12
99	Insights Into the Effect of Nickel Doping on ZIF-Derived Oxygen Reduction Catalysts for Zinc-Air Batteries. <i>ChemElectroChem</i> , 2019, 6, 1213-1224.	1.7	11
100	Effect of Zn Addition on Electrochemical Performance of Al-Air Battery. <i>International Journal of Precision Engineering and Manufacturing - Green Technology</i> , 2020, 7, 505-509.	2.7	11
101	Ca- and Ni-Doped Pr _{0.5} Ba _{0.5} FeO ₃ as a Highly Active and Robust Cathode for High-Temperature Solid Oxide Fuel Cell. <i>Energy & Fuels</i> , 2020, 34, 11458-11463.	2.5	11
102	Enhancing Thermocatalytic Activities by Upshifting the d-Band Center of Exsolved Co-Ni-Fe Ternary Alloy Nanoparticles for the Dry Reforming of Methane. <i>Angewandte Chemie</i> , 2021, 133, 16048-16055.	1.6	11
103	Dysprosium doping effects on perovskite oxides for air and fuel electrodes of solid oxide cells. <i>Journal of Power Sources</i> , 2021, 497, 229873.	4.0	11
104	Performance comparison of composite cathode: Mixed ionic and electronic conductor and triple ionic and electronic conductor with BaZr _{0.1} Ce _{0.7} Y _{0.1} Yb _{0.1} O _{3-δ} for highly efficient protonic ceramic fuel cells. <i>Journal of Power Sources</i> , 2022, 530, 231241.	4.0	11
105	Solid oxide electrolysis: Concluding remarks. <i>Faraday Discussions</i> , 2015, 182, 519-528.	1.6	10
106	Major Role of Surface Area in Perovskite Electrocatalysts for Alkaline Systems. <i>ChemElectroChem</i> , 2017, 4, 468-471.	1.7	10
107	Cobalt-Free Pr _{0.5} Ba _{0.4} Sr _{0.1} FeO ₃ as a Highly Efficient Cathode for Commercial YSZ-Supported Solid Oxide Fuel Cell. <i>ChemElectroChem</i> , 2020, 7, 4378-4382.	1.7	10
108	A Nano-Structured SOFC Composite Cathode Prepared via Infiltration of La _{0.5} Ba _{0.25} Sr _{0.25} Co _{0.8} Fe _{0.2} O _{3-δ} into La _{0.9} Sr _{0.1} Ga _{0.8} Mg _{0.2} O _{3-δ} for Extended Triple-Phase Boundary Area. <i>Journal of the Electrochemical Society</i> , 2019, 166, F805-F809.	1.3	9

#	ARTICLE	IF	CITATIONS
109	Carbon Nanofibers Encapsulated Nickel-Molybdenum Nanoparticles as Hydrogen Evolution Catalysts for Aqueous Zn-CO ₂ System. <i>ChemNanoMat</i> , 2020, 6, 937-946.	1.5	9
110	Self-Transforming Configuration Based on Atmospheric-Adaptive Materials for Solid Oxide Cells. <i>Scientific Reports</i> , 2018, 8, 17149.	1.6	8
111	One-pot surface engineering of battery electrode materials with metallic SWCNT-enriched, ivy-like conductive nanonets. <i>Journal of Materials Chemistry A</i> , 2017, 5, 12103-12112.	5.2	7
112	First-Principles Insight into the Effects of Intrinsic Oxygen Defects on Proton Conduction in Ruddlesden-Popper Oxides. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 11503-11510.	2.1	7
113	Highly Efficient CO ₂ Utilization via Aqueous Zinc or Aluminum-CO ₂ Systems for Hydrogen Gas Evolution and Electricity Production. <i>Angewandte Chemie</i> , 2019, 131, 9606-9611.	1.6	6
114	Utilization of an Isovalent Doping Strategy in Cobalt-Free Ferrites for Highly Active and Stable Solid Oxide Fuel Cell Cathodes. <i>ACS Applied Energy Materials</i> , 2022, 5, 3417-3425.	2.5	6
115	A Bifunctional Hybrid Electrocatalyst for Oxygen Reduction and Oxygen Evolution Reactions: Nano-Co ₃ O ₄ -Deposited La _{0.5} Sr _{0.5} MnO ₃ via Infiltration. <i>Molecules</i> , 2021, 26, 277.	1.7	5
116	Polypyrrole-Assisted Co ₃ O ₄ Anchored Carbon Fiber as a Binder-Free Electrode for Seawater Batteries. <i>ChemElectroChem</i> , 2019, 6, 136-140.	1.7	4
117	Precise Modulation of Triple-Phase Boundaries towards a Highly Functional Exsolved Catalyst for Dry Reforming of Methane under a Dilution-Free System. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	2
118	Electrochemical Properties of La ₄ Ni ₃ O ₁₀ -GDC Composite Cathode by Facile Sol-gel Method for IT-SOFCs. <i>Journal of the Korean Ceramic Society</i> , 2014, 51, 265-270.	1.1	1
119	Molecularly designed, dual-doped mesoporous carbon/SWCNT nanoshields for lithium battery electrode materials. <i>Journal of Materials Chemistry A</i> , 2016, 4, 14996-15005.	5.2	1
120	Electrocatalysis: Porous Cobalt Phosphide Polyhedrons with Iron Doping as an Efficient Bifunctional Electrocatalyst (Small 40/2017). <i>Small</i> , 2017, 13, .	5.2	1
121	Titelbild: Development of Double-Perovskite Compounds as Cathode Materials for Low-Temperature Solid Oxide Fuel Cells (<i>Angew. Chem.</i> 48/2014). <i>Angewandte Chemie</i> , 2014, 126, 13187-13187.	1.6	0
122	Energy Conversion: Fe@N-Graphene Nanoplatelet-Embedded Carbon Nanofibers as Efficient Electrocatalysts for Oxygen Reduction Reaction (<i>Adv. Sci.</i> 1/2016). <i>Advanced Science</i> , 2016, 3, .	5.6	0
123	Interfacial Effect: Strategy for Enhancing Interfacial Effect of Bifunctional Electrocatalyst: Infiltration of Cobalt Nanooxide on Perovskite (<i>Adv. Mater. Interfaces</i> 12/2018). <i>Advanced Materials Interfaces</i> , 2018, 5, 1870060.	1.9	0
124	In situ Observation of Oxygen Vacancy Order-Disorder Transition in NdBaCo ₂ O _{5.5} Layered Perovskite Oxide. <i>Microscopy and Microanalysis</i> , 2019, 25, 1872-1873.	0.2	0
125	Electrochemical Performance Analysis of Heat Treatment of Metal-Air Battery. <i>Journal of the Korean Society for Precision Engineering</i> , 2018, 35, 1137-1140.	0.1	0