Tao Wei

List of Publications by Year
in descending order

80 papers	2,619 citations	186265 28 h-index	206112 48 g-index
81 all docs	81 docs citations	81 times ranked	2881 citing authors

#	Article	IF	Citations
1	A Photoresponsive Rutile TiO₂ Heterojunction with Enhanced Electronâ€“Hole Separation for Highâ€Performance Hydrogen Evolution. Advanced Materials, 2019, 31, e1806596.	21.0	240
2	Thermal and electrochemical properties of PrBa0.5Sr0.5Co2â^'xFexO5+Î´ (xÂ=Â0.5, 1.0, 1.5) cathode materials for solid-oxide fuel cells. Journal of Power Sources, 2013, 232, 279-285.	7.8	134
3	Methanation of CO2 over Ni/Al2O3 modified with alkaline earth metals: Impacts of oxygen vacancies on catalytic activity. International Journal of Hydrogen Energy, 2019, 44, 8197-8213.	7.1	99
4	High-performance piezoelectric composite nanogenerator based on Ag/(K,Na)NbO3 heterostructure. Nano Energy, 2018, 50, 62-69.	16.0	93
5	Cobalt-based double-perovskite symmetrical electrodes with low thermal expansion for solid oxidefuel cells. Journal of Materials Chemistry, 2012, 22, 225-231.	6.7	90
6	Catalytic pyrolysis of poplar wood over transition metal oxides: Correlation of catalytic behaviors with physiochemical properties of the oxides. Biomass and Bioenergy, 2019, 124, 125-141.	5.7	82
7	Steam reforming of guaiacol over Ni/Al2O3 and Ni/SBA-15: Impacts of support on catalytic behaviors of nickel and properties of coke. Fuel Processing Technology, 2019, 191, 138-151.	7.2	78
8	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.	30.8	75
9	Electrochemical performance of double-perovskite Ba2MMoO6 (M=Fe, Co, Mn, Ni) anode materials for solid oxide fuel cells. Journal of Power Sources, 2012, 198, 59-65.	7.8	71
10	Optimizing the grain size and grain boundary morphology of (K,Na)NbO3-based ceramics: Paving the way for ultrahigh energy storage capacitors. Journal of Materiomics, 2021, 7, 780-789.	5.7	69
11	Sr2NiMoO6â^'Î´ as anode material for LaGaO3-based solid oxide fuel cell. Electrochemistry Communications, 2008, 10, 1369-1372.	4.7	65
12	Evaluation of Pr1+xBa1-xCo2O5+Î´ (x = 0 - 0.30) as cathode materials for solid-oxide fuel cells. Electrochimica Acta, 2014, 133, 364-372.	5.2	65
13	Achieving ultrahigh energy storage efficiency in local-composition gradient-structured ferroelectric ceramics. Chemical Engineering Journal, 2021, 425, 129506.	12.7	65
14	Characterization of Pr1â^'xSrxCo0.8Fe0.2O3â^'Î´ (0.2â‰¤xâ‰¤0.6) cathode materials for intermediate-temperature solid oxide fuel cells. Journal of Power Sources, 2008, 183, 581-585.	7.8	64
15	Intrinsic Effects of Ruddlesdenâ€Popperâ€Based Bifunctional Catalysts for Highâ€Temperature Oxygen Reduction and Evolution. Advanced Energy Materials, 2019, 9, 1901573.	19.5	58
16	Understanding correlation of the interaction between nickel and alumina with the catalytic behaviors in steam reforming and methanation. Fuel, 2019, 250, 176-193.	6.4	56
17	A Combined Optimization Strategy for Improvement of Comprehensive Energy Storage Performance in Sodium Niobate-Based Antiferroelectric Ceramics. ACS Applied Materials & Interfaces, 2022, 14, 9330-9339.	8.0	56
18	An Allâ€Ceramic Solidâ€State Rechargeable Na⁺â€Battery Operated at Intermediate Temperatures. Advanced Functional Materials, 2014, 24, 5380-5384.	14.9	52

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19	High conductive and long-term phase stable anode materials for SOFCs: A 2 FeMoO 6 (AÂ= Ca, Sr, Ba). Journal of Power Sources, 2017, 359, 384-390.	7.8	51
20	A reversible and stable flake-like LiCoO2 cathode for lithium ion batteries. Chemical Communications, 2014, 50, 1962.	4.1	47
21	Steam reforming of guaiacol over Ni/SiO2 catalyst modified with basic oxides: Impacts of alkalinity on properties of coke. Energy Conversion and Management, 2020, 205, 112301.	9.2	40
22	Ultrathin and Highly Crystalline Co₃O₄ Nanosheets In Situ Grown on Graphene toward Enhanced Supercapacitor Performance. Advanced Materials Interfaces, 2017, 4, 1600884.	3.7	33
23	Defect control for enhanced piezoelectric properties in SnO 2 and ZrO 2 co-modified KNN ceramics fired under reducing atmosphere. Journal of the European Ceramic Society, 2017, 37, 2057-2065.	5.7	33
24	Evaluation of La0.4Ba0.6Fe0.8Zn0.2O3â^'Î´Â+ÂSm0.2Ce0.8O1.9 as a potential cobalt-free composite cathode for intermediate temperature solid oxide fuel cells. Journal of Power Sources, 2015, 275, 808-814.	7.8	32
25	Defect engineering of BCZT-based piezoelectric ceramics with high piezoelectric properties. Journal of Advanced Ceramics, 2022, 11, 184-195.	17.4	32
26	Oxidase-Inspired Selective 2e/4e Reduction of Oxygen on Electron-Deficient Cu. ACS Applied Materials & Interfaces, 2020, 12, 4833-4842.	8.0	31
27	A high-performance, cobalt-free cathode for intermediate-temperature solid oxide fuel cells with excellent CO2 tolerance. Journal of Power Sources, 2016, 319, 178-184.	7.8	30
28	Defect engineering of highâ€performance potassium sodium niobate piezoelectric ceramics sintered in reducing atmosphere. Journal of the American Ceramic Society, 2017, 100, 2024-2033.	3.8	28
29	Polarization switching and rotation in KNN-based lead-free piezoelectric ceramics near the polymorphic phase boundary. Journal of the European Ceramic Society, 2019, 39, 1002-1010.	5.7	28
30	Autothermal reforming of methane over an integrated solid oxide fuel cell reactor for power and syngas co-generation. Journal of Power Sources, 2021, 513, 230536.	7.8	28
31	Impacts of La addition on formation of the reaction intermediates over alumina and silica supported nickel catalysts in methanation of CO2. Journal of the Energy Institute, 2020, 93, 723-738.	5.3	27
32	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.	8.2	25
33	Thermally sprayed high-performance porous metal-supported solid oxide fuel cells with nanostructured La_{0.6}Sr_{0.4}Co_{0.2}Fe_{0.8}O_{3â^'Î´} cathodes. Journal of Materials Chemistry A, 2016, 4, 7461-7468.	10.3	25
34	Promising Proton Conductor for Intermediate-Temperature Fuel Cells: Li_{13.9}Sr_{0.1}Zn(GeO₄)₄. Chemistry of Materials, 2017, 29, 1490-1495.	6.7	25
35	High-Voltage All-Solid-State Na-Ion-Based Full Cells Enabled by All NASICON-Structured Materials. ACS Applied Materials & Interfaces, 2019, 11, 24192-24197.	8.0	25
36	Synergetic effects of hydrogenation and acidic sites in phosphorus-modified nickel catalysts for the selective conversion of furfural to cyclopentanone. Catalysis Science and Technology, 2021, 11, 575-593.	4.1	25

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37	A microchannel reactor-integrated ceramic fuel cell with dual-coupling effect for efficient power and syngas co-generation from methane. Applied Catalysis B: Environmental, 2021, 297, 120443.	20.2	25
38	Optimizing energy harvesting performance by tailoring ferroelectric/relaxor behavior in KNN-based piezoceramics. Journal of Advanced Ceramics, 2022, 11, 935-944.	17.4	25
39	BaCo[sub 0.7]Fe[sub 0.2]Nb[sub 0.1]O[sub 3â˘Î] Perovskite Oxide as Cathode Material for Intermediate-Temperature Solid Oxide Fuel Cells. Electrochemical and Solid-State Letters, 2009, 12, B103.	2.2	23
40	Electrical conduction and dielectric relaxation mechanisms in the KNN-based ceramics. Journal of Applied Physics, 2019, 126, .	2.5	23
41	Evaluation of Ca3Co2O6 as cathode material for high-performance solid-oxide fuel cell. Scientific Reports, 2013, 3, 1125.	3.3	22
42	Thermoelectric Solid-Oxide Fuel Cells with Extra Power Conversion from Waste Heat. Chemistry of Materials, 2012, 24, 1401-1403.	6.7	21
43	Elevated-temperature bio-ethanol-assisted water electrolysis for efficient hydrogen production. Chemical Engineering Journal, 2022, 434, 134699.	12.7	21
44	Amelioration on energy storage performance of KNNâ€based transparent ceramics by optimizing the polarization and breakdown strength. Journal of the American Ceramic Society, 2022, 105, 6158-6167.	3.8	20
45	Essential microstructure of cathode functional layers of solid oxide electrolysis cells for CO2 electrolysis. Journal of CO2 Utilization, 2019, 32, 214-218.	6.8	19
46	Design of pâ€type NKNâ€based piezoelectric ceramics sintered in low oxygen partial pressure by defect engineering. Journal of the American Ceramic Society, 2020, 103, 3667-3675.	3.8	17
47	Achieving excellent energy storage reliability and endurance via mechanical performance optimization strategy in engineered ceramics with core-shell grain structure. Journal of Materiomics, 2022, 8, 601-610.	5.7	16
48	One-pot synthesized hetero-structured Ca3Co2O6/La0.6Ca0.4CoO3 dual-phase composite cathode materials for solid-oxide fuel cells. International Journal of Hydrogen Energy, 2015, 40, 12750-12760.	7.1	15
49	La2NiO4+Î´ Infiltration of Plasma-Sprayed LSCF Coating for Cathode Performance Improvement. Journal of Thermal Spray Technology, 2016, 25, 392-400.	3.1	15
50	Anode-supported solid oxide fuel cells based on Sm0.2Ce0.8O1.9 electrolyte fabricated by a phase-inversion and drop-coating process. International Journal of Hydrogen Energy, 2016, 41, 10907-10913.	7.1	15
51	A highly active CH₄ catalyst correlated with solid oxide fuel cell anode performance. Journal of Materials Chemistry A, 2021, 9, 5067-5074.	10.3	15
52	Revealing the Intrinsic Origin for Performance-Enhancing V₂O₅ Electrode Materials. ACS Applied Materials & Interfaces, 2020, 12, 45961-45967.	8.0	14
53	Catalytic CeO2 washcoat over microchanneled supporting cathodes of solid oxide electrolysis cells for efficient and stable CO2 reduction. Journal of Power Sources, 2019, 412, 344-349.	7.8	13
54	Robust Anodeâ€Supported Cells with Fast Oxygen Release Channels for Efficient and Stable CO₂ Electrolysis at Ultrahigh Current Densities. Small, 2021, 17, e2007211.	10.0	13

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55	Controlling grain size in columnar YSZ coating formation by droplet filtering assisted PS-PVD processing. RSC Advances, 2015, 5, 102126-102133.	3.6	11
56	Composites of Single/Double Perovskites as Cathodes for Solid Oxide Fuel Cells. Energy Technology, 2016, 4, 804-808.	3.8	11
57	A Comparative Study on the Li⁺/Na⁺ Transportation in NASICON-Type Electrolytes. Journal of Physical Chemistry C, 2018, 122, 20565-20570.	3.1	11
58	Enhanced thermal and cycling reliabilities in (K,Na)(Nb,Sb)O3-CaZrO3-(Bi,Na)HfO3 ceramics. Journal of Advanced Ceramics, 2020, 9, 349-359.	17.4	11
59	Efficient conversion of methane into power via microchanneled solid oxide fuel cells. Journal of Power Sources, 2020, 453, 227848.	7.8	11
60	3D Vertically Aligned Microchannel Threeâ€Layer All Ceramic Lithium Ion Battery for Highâ€Rate and Longâ€Cycle Electrochemical Energy Storage. Small, 2022, 18, e2107442.	10.0	11
61	Reviewâ€"Double-Perovskite Electrode Design Strategies and Research Progress for SOFCs. Journal of the Electrochemical Society, 2022, 169, 064508.	2.9	11
62	Thermoelectric solid-oxide fuel cell with Ca2Co2O5 as cathode material. RSC Advances, 2013, 3, 2336.	3.6	10
63	Interfacial effects on electrical conductivity in ultrafine-grained Sm0.2Ce0.8O2â^'Î´ electrolytes fabricated by a two-step sintering process. International Journal of Hydrogen Energy, 2017, 42, 11823-11829.	7.1	10
64	Impacts of Solvents on the Stability of the Biomass-Derived Sugars and Furans. Energy & Fuels, 2020, 34, 3250-3261.	5.1	10
65	Activating ORR and OER in Ruddlesden-Popper based catalysts by enhancing interstitial oxygen and lattice oxygen redox reactions. Electrochimica Acta, 2021, 370, 137747.	5.2	10
66	Defect engineering on sea-urchin-like transition-metal oxides for high-performance supercapacitors. Journal of Power Sources, 2022, 533, 231409.	7.8	10
67	Ultrahigh energy harvesting properties in Ag decorated potassium-sodium niobite particle-polymer composite. Journal of Materiomics, 2020, 6, 355-363.	5.7	9
68	Enhanced ferro-photocatalytic performance for ANbO₃ (A = Na, K) nanoparticles. Mathematical Biosciences and Engineering, 2019, 16, 4122-4134.	1.9	9
69	Systematic effect of contaminations on IT-SOFCs cathode stability: a quantifiable correlation versus cathode-side poisoning and protection. Journal of Materials Chemistry A, 2018, 6, 5172-5184.	10.3	8
70	Enhanced photocatalytic activity and cycle stability driven by ultrasonic vibration for ferroelectric photocatalysts. IET Nanodielectrics, 2019, 2, 48-53.	4.1	8
71	Enhanced Photocatalytic Activity by the Combined Influence of Ferroelectric Domain and Au Nanoparticles for BaTiO₃ Fibers. Nano, 2018, 13, 1850149.	1.0	7
72	Factors influencing Li+ migration in garnet-type ceramic electrolytes. Journal of Materiomics, 2019, 5, 214-220.	5.7	7

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73	Achieving high mechanical-strength CH4-based SOFCs by low-temperature sintering (1100ÂÂ°C). International Journal of Hydrogen Energy, 2020, 45, 3086-3093.	7.1	7
74	Medium-Entropy SrV1/3Fe1/3Mo1/3O3 with High Conductivity and Strong Stability as SOFCs High-Performance Anode. Materials, 2022, 15, 2298.	2.9	7
75	Enhanced electrochemical activity in Ca3Co2O6 cathode for solid-oxide fuelÂcells by Cu substitution. Journal of Materiomics, 2015, 1, 60-67.	5.7	5
76	Optimization of Cathode Functional Layers of Solid Oxide Electrolysis Cells. ACS Applied Materials & Interfaces, 2020, 12, 40917-40924.	8.0	5
77	Enhanced thermal reliability of Mn-doped (K, Na)NbO3-based piezoelectric ceramics. Journal of Materials Science: Materials in Electronics, 2019, 30, 18659-18665.	2.2	4
78	Evaluation of Ca 3 (Co,M) 2 O 6 (M=Co, Fe, Mn, Ni) as new cathode materials for solid-oxide fuel cells. Progress in Natural Science: Materials International, 2015, 25, 370-378.	4.4	3
79	Optimizing coupling agent for the enhanced energy storage density of BaTiO3/P(VDFâ€‰â€”â€‰HFP)&PMMA nanocomposite films. Journal of Polymer Research, 2021, 28, 1.	2.4	3
80	The optimal sintering atmosphere and defect structure of CuO-doped NKN-based ceramic with p/n-type conduction mechanism. Journal of Materials Science: Materials in Electronics, 2021, 32, 1928-1940.	2.2	1