Hanping Ding

List of Publications by Year in Descending Order

70 papers	1,453 citations	23 h-index	36 g-index
88 ext. papers	1,798 ext. citations	8.5 avg, IF	4.75 L-index

#	Paper	IF	Citations
70	Revitalizing interface in protonic ceramic cells by acid etch.. *Nature*, **2022**, 604, 479-485	50.4	10
69	Modeling the performance and faradaic efficiency of solid oxide electrolysis cells using doped barium zirconate perovskite electrolytes. *International Journal of Hydrogen Energy*, **2021**, 46, 11511-11522	6.7	5
68	Composition Optimization of Triple Conducting PrNixCo1-XO3-□Oxygen Electrodes for Protonic Ceramic Electrochemical Cells. *ECS Meeting Abstracts*, **2021**, MA2021-01, 1145-1145	0	
67	Natural Gas Conversion Using Proton-Conducting Ceramic Membrane Reactor. *ECS Meeting Abstracts*, **2021**, MA2021-01, 1149-1149	0	
66	Regulation of Cathode Mass and Charge Transfer by Structural 3D Engineering for Protonic Ceramic Fuel Cell at 400□C. *Advanced Functional Materials*, **2021**, 31, 2102907	15.6	4
65	A mini-review on proton conduction of BaZrO3-based perovskite electrolytes. *JPhys Energy*, **2021**, 3, 032019	4.9	6
64	TEM Sample Preparation of Buried Interfaces in Porous Layered Materials. *Microscopy and Microanalysis*, **2021**, 27, 3466-3467	0.5	
63	Proton-conducting ceramic fuel cells: Scale up and stack integration. *Journal of Power Sources*, **2021**, 482, 228868	8.9	21
62	Direct conversion of natural gases in solid oxide cells: A mini-review. *Electrochemistry Communications*, **2021**, 128, 107068	5.1	2
61	Regulation of Cathode Mass and Charge Transfer by Structural 3D Engineering for Protonic Ceramic Fuel Cell at 400□C (Adv. Funct. Mater. 33/2021). *Advanced Functional Materials*, **2021**, 31, 2170244	15.6	2
60	Electrochemically Engineered, Highly Energy-Efficient Conversion of Ethane to Ethylene and Hydrogen below 550 °C in a Protonic Ceramic Electrochemical Cell. *ACS Catalysis*, **2021**, 11, 12194-12202	13.1	2
59	Dual Functional Ni3S2@Ni Core□Shell Nanoparticles Decorating Nanoporous Carbon as Cathode Scaffolds for Lithium□Sulfur Battery with Lean Electrolytes. *ACS Applied Energy Materials*, **2020**, 3, 4173-4179	6.1	6
58	Direct Carbon Fuel Cells: Dual 3D Ceramic Textile Electrodes: Fast Kinetics for Carbon Oxidation Reaction and Oxygen Reduction Reaction in Direct Carbon Fuel Cells at Reduced Temperatures (Adv. Funct. Mater. 19/2020). *Advanced Functional Materials*, **2020**, 30, 2070119	15.6	
57	Dual 3D Ceramic Textile Electrodes: Fast Kinetics for Carbon Oxidation Reaction and Oxygen Reduction Reaction in Direct Carbon Fuel Cells at Reduced Temperatures. *Advanced Functional Materials*, **2020**, 30, 1910096	15.6	11
56	Understanding of A-site deficiency in layered perovskites: promotion of dual reaction kinetics for water oxidation and oxygen reduction in protonic ceramic electrochemical cells. *Journal of Materials Chemistry A*, **2020**, 8, 14600-14608	13	16
55	Highly Efficient and Durable Materials for Protonic Ceramic Electrochemical Cells Operated at 400~600 ?c. *ECS Meeting Abstracts*, **2020**, MA2020-02, 2588-2588	0	
54	Electronic Transport within Proton-Conducting Ceramics and Its Effect on Faradaic Efficiency of High-Temperature Water Electrolysis for Hydrogen Production. *ECS Meeting Abstracts*, **2020**, MA2020-01, 1492-1492	0	

53	Three-dimensional Analysis of Materials at Multiple Length Scales. *Microscopy and Microanalysis*, **2020**, 26, 1680-1682	0.5	
52	Tri-Doped BaCeO-BaZrO as a Chemically Stable Electrolyte with High Proton-Conductivity for Intermediate Temperature Solid Oxide Electrolysis Cells (SOECs). *ACS Applied Materials & Interfaces*, **2020**, 12, 38275-38284	9.5	14
51	Self-sustainable protonic ceramic electrochemical cells using a triple conducting electrode for hydrogen and power production. *Nature Communications*, **2020**, 11, 1907	17.4	80
50	Advancement of Proton-Conducting Solid Oxide Fuel Cells and Solid Oxide Electrolysis Cells at Idaho National Laboratory (INL). *ECS Transactions*, **2019**, 91, 1029-1034	1	7
49	Electricity generation in dry methane by a durable ceramic fuel cell with high-performing and coking-resistant layered perovskite anode. *Applied Energy*, **2019**, 233-234, 37-43	10.7	28
48	Nanostructured Electrodes for High-Performing Solid Oxide Fuel Cells **2018**, 227-247		1
47	Hydrogen Production: 3D Self-Architectured Steam Electrode Enabled Efficient and Durable Hydrogen Production in a Proton-Conducting Solid Oxide Electrolysis Cell at Temperatures Lower Than 600 °C (Adv. Sci. 11/2018). *Advanced Science*, **2018**, 5, 1870070	13.6	3
46	A high-performing proton-conducting solid oxide fuel cell with layered perovskite cathode in intermediate temperatures. *International Journal of Hydrogen Energy*, **2018**, 43, 19757-19762	6.7	13
45	High-performing and stable electricity generation by ceramic fuel cells operating in dry methane over 1000 hours. *Journal of Power Sources*, **2018**, 401, 322-328	8.9	14
44	3D Self-Architectured Steam Electrode Enabled Efficient and Durable Hydrogen Production in a Proton-Conducting Solid Oxide Electrolysis Cell at Temperatures Lower Than 600 °C. *Advanced Science*, **2018**, 5, 1800360	13.6	44
43	Double perovskite Ba2FeMoO6as fuel electrode for protonic-ceramic membranes. *Solid State Ionics*, **2017**, 306, 97-103	3.3	15
42	Methane-Fueled Proton-Conducting Ceramic Fuel Cell Stacks. *ECS Transactions*, **2017**, 78, 1941-1944	1	
41	Exploring electronic conduction through BaCe Zr0.9Y0.1O3 proton-conducting ceramics. *Solid State Ionics*, **2016**, 286, 117-121	3.3	33
40	The co-doping effect of Sm and In on ceria for electrolyte application in IT-SOFC. *Journal of Alloys and Compounds*, **2016**, 663, 750-754	5.7	23
39	A redox-stable direct-methane solid oxide fuel cell (SOFC) with Sr2FeNb0.2Mo0.8O6double perovskite as anode material. *Journal of Power Sources*, **2016**, 327, 573-579	8.9	53
38	An Interfacial Nanospike-Structured Cathode for Low Temperature Solid Oxide Fuel Cells. *ECS Transactions*, **2015**, 68, 743-749	1	
37	Determination of Electrochemical Kinetic Property for Mixed Ionic Electronic Conductors from Electrical Conductivity Relaxation Measurements. *Journal of the Electrochemical Society*, **2015**, 162, F951-F958	3.9	8
36	A High-Performing Sulfur-Tolerant and Redox-Stable Layered Perovskite Anode for Direct Hydrocarbon Solid Oxide Fuel Cells. *Scientific Reports*, **2015**, 5, 18129	4.9	56

35	A mixed proton-oxide ion-electron conducting anode for highly coking-resistant solid oxide fuel cells. *Electrochimica Acta*, **2014**, 150, 55-61	6.7	9
34	A platinum nanowire network as a highly efficient current collector for intermediate temperature solid oxide fuel cells. *RSC Advances*, **2014**, 4, 11317-11321	3.7	3
33	An Interfacial Nanospike-Structured Cathode for Low Temperature Solid Oxide Fuel Cells. *Advanced Materials Interfaces*, **2014**, 1, 1400008	4.6	8
32	Direct methane fueled solid oxide fuel cell model with detailed reforming reactions. *Chemical Engineering Journal*, **2013**, 228, 917-924	14.7	15
31	Multi-physicochemical modeling of direct methane fueled solid oxide fuel cells. *Journal of Power Sources*, **2013**, 241, 718-727	8.9	7
30	Resorcinol□formaldehyde gel method to synthesize porous Ce0.8Sm0.2O1.9 nanoparticles. *Materials Letters*, **2012**, 81, 5-8	3.3	
29	A Nanosheet-Structured Three-Dimensional Macroporous Material with High Ionic Conductivity Synthesized Using Glucose as a Transforming Template. *Angewandte Chemie*, **2012**, 124, 6309-6312	3.6	
28	A nanosheet-structured three-dimensional macroporous material with high ionic conductivity synthesized using glucose as a transforming template. *Angewandte Chemie - International Edition*, **2012**, 51, 6205-8	16.4	10
27	A Ceramic-Anode Supported Low Temperature Solid Oxide Fuel Cell. *Electrochemical and Solid-State Letters*, **2012**, 15, B86		14
26	Investigation of cobalt-free perovskite Ba0.95La0.05FeO3□as a cathode for proton-conducting solid oxide fuel cells. *Journal of Power Sources*, **2011**, 196, 9352-9355	8.9	43
25	Electrochemical performance of BaZr0.1Ce0.7Y0.1Yb0.1O3□electrolyte based proton-conducting SOFC solid oxide fuel cell with layered perovskite PrBaCo2O5+□cathode. *Journal of Power Sources*, **2011**, 196, 2602-2607	8.9	63
24	High performance protonic ceramic membrane fuel cells (PCMFCs) with Sm0.5Sr0.5CoO3□ perovskite cathode. *Journal of Alloys and Compounds*, **2010**, 494, 233-235	5.7	20
23	GdBa0.5Sr0.5Co2O5+□layered perovskite as promising cathode for proton conducting solid oxide fuel cells. *Journal of Alloys and Compounds*, **2010**, 496, 683-686	5.7	27
22	Novel layered perovskite oxide PrBaCuCoO5+□as a potential cathode for intermediate-temperature solid oxide fuel cells. *Journal of Power Sources*, **2010**, 195, 453-456	8.9	54
21	A novel layered perovskite cathode for proton conducting solid oxide fuel cells. *Journal of Power Sources*, **2010**, 195, 775-778	8.9	24
20	A novel cobalt-free layered GdBaFe2O5+□cathode for proton conducting solid oxide fuel cells. *Journal of Power Sources*, **2010**, 195, 4139-4142	8.9	23
19	Cobalt-free layered perovskite GdBaFe2O5+x as a novel cathode for intermediate temperature solid oxide fuel cells. *Journal of Power Sources*, **2010**, 195, 4718-4721	8.9	29
18	BaZr0.1Ce0.7Y0.1Yb0.1O3□electrolyte-based solid oxide fuel cells with cobalt-free PrBaFe2O5+□ layered perovskite cathode. *Journal of Power Sources*, **2010**, 195, 7038-7041	8.9	40

17	Proton conducting solid oxide fuel cells with layered PrBa0.5Sr0.5Co2O5+δ perovskite cathode. *International Journal of Hydrogen Energy*, **2010**, 35, 2486-2490	6.7	22
16	Novel layered perovskite GdBaCoFeO5+δ as a potential cathode for proton-conducting solid oxide fuel cells. *International Journal of Hydrogen Energy*, **2010**, 35, 4311-4315	6.7	13
15	Layered perovskite GdBaCoFeO5+x as cathode for intermediate-temperature solid oxide fuel cells. *International Journal of Hydrogen Energy*, **2010**, 35, 4316-4319	6.7	14
14	PrBa0.5Sr0.5Co2O5+δ layered perovskite cathode for intermediate temperature solid oxide fuel cells. *Electrochimica Acta*, **2010**, 55, 3812-3816	6.7	42
13	Stable, easily sintered Ca,Zn-doped YCrO3 as novel interconnect materials for co-fired yttrium-stabilized zirconia-based solid oxide fuel cells. *Journal of Power Sources*, **2009**, 188, 483-488	8.9	28
12	High performance layered SmBa0.5Sr0.5Co2O5+δ cathode for intermediate-temperature solid oxide fuel cells. *Journal of Power Sources*, **2009**, 194, 815-817	8.9	13
11	Intermediate-to-low temperature protonic ceramic membrane fuel cells with Ba0.5Sr0.5Co0.8Fe0.2O3-δ-BaZr0.1Ce0.7Y0.2O3-δ composite cathode. *Journal of Power Sources*, **2009**, 186, 58-61	8.9	65
10	High performance of proton-conducting solid oxide fuel cell with a layered PrBaCo2O5+δ cathode. *Journal of Power Sources*, **2009**, 194, 835-837	8.9	96
9	SrCo0.9Sb0.1O3-δ cubic perovskite as a novel cathode for intermediate-to-low temperature solid oxide fuel cells. *Journal of Alloys and Compounds*, **2009**, 472, 556-558	5.7	27
8	BaZr0.1Ce0.7Y0.2O3-δ proton-conducting electrolyte prepared by gel-casting for low-temperature solid oxide fuel cells. *Journal of Alloys and Compounds*, **2009**, 474, 364-369	5.7	14
7	Cost-effective macro-porous mullite-corundum ceramic membrane supports derived from the industrial grade powder. *Journal of Alloys and Compounds*, **2009**, 477, 350-356	5.7	33
6	Cost-effective tubular cordierite micro-filtration membranes processed by co-sintering. *Journal of Alloys and Compounds*, **2009**, 477, L35-L40	5.7	17
5	Stable, easily sintered BaCe0.5Zr0.3Y0.16Zn0.04O3-δ electrolyte-based proton-conducting solid oxide fuel cells by gel-casting and suspension spray. *Journal of Alloys and Compounds*, **2009**, 478, 590-593	5.7	9
4	Low-temperature protonic ceramic membrane fuel cells (PCMFCs) with SrCo0.9Sb0.1O3-δ cubic perovskite cathode. *Journal of Power Sources*, **2008**, 185, 937-940	8.9	22
3	Prontonic ceramic membrane fuel cells with layered GdBaCo2O5+x cathode prepared by gel-casting and suspension spray. *Journal of Power Sources*, **2008**, 177, 330-333	8.9	77
2	High performance protonic ceramic membrane fuel cells (PCMFCs) with Ba0.5Sr0.5Zn0.2Fe0.8O3-δ perovskite cathode. *Electrochemistry Communications*, **2008**, 10, 1388-1391	5.1	67
1	An Active and Robust Air Electrode for Reversible Protonic Ceramic Electrochemical Cells. *ACS Energy Letters*,1511-1520	20.1	27