Jianhua Tong

List of Publications by Year
in descending order

106 papers	6,428 citations	94381 37 h-index	64755 79 g-index
108 all docs	108 docs citations	108 times ranked	4380 citing authors

#	Article	IF	Citations
1	Investigation of the permeation behavior and stability of a Ba0.5Sr0.5Co0.8Fe0.2O3â^'Î´ oxygen membrane. Journal of Membrane Science, 2000, 172, 177-188.	4.1	983
2	Readily processed protonic ceramic fuel cells with high performance at low temperatures. Science, 2015, 349, 1321-1326.	6.0	982
3	Sr- and Mn-doped LaAlO3â^'Î´ for solar thermochemical H2 and CO production. Energy and Environmental Science, 2013, 6, 2424.	15.6	323
4	Zr and Y co-doped perovskite as a stable, high performance cathode for solid oxide fuel cells operating below 500 Â°C. Energy and Environmental Science, 2017, 10, 176-182.	15.6	270
5	Cost-effective solid-state reactive sintering method for high conductivity proton conducting yttrium-doped barium zirconium ceramics. Solid State Ionics, 2010, 181, 496-503.	1.3	242
6	The Arabidopsis AP2/ERF transcription factor RAP2.6 participates in ABA, salt and osmotic stress responses. Gene, 2010, 457, 1-12.	1.0	240
7	Investigation of ideal zirconium-doped perovskite-type ceramic membrane materials for oxygen separation. Journal of Membrane Science, 2002, 203, 175-189.	4.1	212
8	Solid-state reactive sintering mechanism for large-grained yttrium-doped barium zirconate proton conducting ceramics. Journal of Materials Chemistry, 2010, 20, 6333.	6.7	182
9	Review: recent progress in low-temperature proton-conducting ceramics. Journal of Materials Science, 2019, 54, 9291-9312.	1.7	141
10	Experimental Study of Steam Reforming of Methane in a Thin (6 Î¼M) Pd-Based Membrane Reactor. Industrial & Engineering Chemistry Research, 2005, 44, 1454-1465.	1.8	124
11	Novel and Ideal Zirconium-Based Dense Membrane Reactors for Partial Oxidation of Methane to Syngas. Catalysis Letters, 2002, 78, 129-137.	1.4	121
12	Solid-state reactive sintering mechanism for proton conducting ceramics. Solid State Ionics, 2013, 253, 201-210.	1.3	115
13	Preparation of palladium membrane over porous stainless steel tube modified with zirconium oxide. Catalysis Today, 2004, 93-95, 689-693.	2.2	113
14	A promising cathode for intermediate temperature protonic ceramic fuel cells: BaCo0.4Fe0.4Zr0.2O3â^'Î´. RSC Advances, 2013, 3, 15769.	1.7	111
15	Investigation on POM reaction in a new perovskite membrane reactor. Catalysis Today, 2001, 67, 3-13.	2.2	109
16	Proton-conducting yttrium-doped barium cerate ceramics synthesized by a cost-effective solid-state reactive sintering method. Solid State Ionics, 2010, 181, 1486-1498.	1.3	106
17	Pure hydrogen production by methane steam reforming with hydrogen-permeable membrane reactor. Catalysis Today, 2006, 111, 147-152.	2.2	92
18	Nonstoichiometric Perovskite Oxides for Solar Thermochemical H2 and CO Production. Energy Procedia, 2014, 49, 2009-2018.	1.8	89

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19	BaCe_{0.25}Mn_{0.75}O_{3âˆ'Î´}â€"a promising perovskite-type oxide for solar thermochemical hydrogen production. Energy and Environmental Science, 2018, 11, 3256-3265.	15.6	86
20	Effect of catalytic activity on methane steam reforming in hydrogen-permeable membrane reactor. Applied Catalysis A: General, 2005, 286, 226-231.	2.2	82
21	Thin and dense Pd/CeO2/MPSS composite membrane for hydrogen separation and steam reforming of methane. Separation and Purification Technology, 2005, 46, 1-10.	3.9	77
22	Partial oxidation of methane in Ba0.5Sr0.5Co0.8Fe0.2O3âˆ'Î´ membrane reactor at high pressures. Catalysis Today, 2005, 104, 154-159.	2.2	76
23	A novel method for the preparation of thin dense Pd membrane on macroporous stainless steel tube filter. Journal of Membrane Science, 2005, 260, 10-18.	4.1	70
24	Preparation of a pinhole-free Pdâ€"Ag membrane on a porous metal support for pure hydrogen separation. Journal of Membrane Science, 2005, 260, 84-89.	4.1	69
25	Thin and defect-free Pd-based composite membrane without any interlayer and substrate penetration by a combined organic and inorganic process. Chemical Communications, 2006, , 1142.	2.2	64
26	Nature of Reactive Hydrogen for Ammonia Synthesis over a Ru/C12A7 Electride Catalyst. Journal of the American Chemical Society, 2020, 142, 7655-7667.	6.6	59
27	Machine Learning Algorithms for Predicting the Recurrence of Stage IV Colorectal Cancer After Tumor Resection. Scientific Reports, 2020, 10, 2519.	1.6	54
28	Novel twin-perovskite nanocomposite of Baâ€"Ceâ€"Feâ€"Coâ€"O as a promising triple conducting cathode material for protonic ceramic fuel cells. Journal of Power Sources, 2020, 450, 227609.	4.0	52
29	Methane Steam Reforming in Hydrogen-permeable Membrane Reactor for Pure Hydrogen Production. Topics in Catalysis, 2008, 51, 123-132.	1.3	51
30	Preparation of thin Pd membrane on CeO2-modified porous metal by a combined method of electroless plating and chemical vapor deposition. Journal of Membrane Science, 2006, 269, 101-108.	4.1	49
31	Investigation on the structure stability and oxygen permeability of titanium-doped perovskite-type oxides of BaTi0.2CoxFe0.8âˆ'xO3âˆ'Î´ (x=0.2â€"0.6). Separation and Purification Technology, 2003, 32, 289-299.	3.9	46
32	Thin Pd membrane on Î±-Al2O3 hollow fiber substrate without any interlayer by electroless plating combined with embedding Pd catalyst in polymer template. Journal of Membrane Science, 2008, 310, 93-101.	4.1	45
33	Simultaneously Depositing Pdâˆ'Ag Thin Membrane on Asymmetric Porous Stainless Steel Tube and Application To Produce Hydrogen from Steam Reforming of Methane. Industrial & Engineering Chemistry Research, 2006, 45, 648-655.	1.8	44
34	Ionic transport modification in proton conducting BaCe0.6Zr0.3Y0.1O3âˆ'Î´ with transition metal oxide dopants. Solid State Ionics, 2016, 294, 37-42.	1.3	41
35	Surface engineering of MXenes for energy and environmental applications. Journal of Materials Chemistry A, 2022, 10, 10265-10296.	5.2	41
36	Thin Pd membrane prepared on macroporous stainless steel tube filter by an in-situ multi-dimensional plating mechanism. Chemical Communications, 2004, , 2460.	2.2	39

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37	Three-dimensional quantification of composition and electrostatic potential at individual grain boundaries in doped ceria. Journal of Materials Chemistry A, 2016, 4, 5167-5175.	5.2	39
38	A high-performance reversible protonic ceramic electrochemical cell based on a novel Sm-doped BaCe0Â·7Zr0Â·1Y0Â·2O3-Î´ electrolyte. Journal of Power Sources, 2019, 439, 227093.	4.0	38
39	Investigate the proton uptake process of proton/oxygen ion/hole triple conductor BaCo0.4Fe0.4Zr0.1Y0.1O3-Î´ by electrical conductivity relaxation. Journal of Power Sources, 2019, 440, 227122.	4.0	35
40	Crystal structure, oxygen permeability and stability of Ba0.5Sr0.5Co0.8Fe0.1M0.1O3â^'Î´ (M=Fe, Cr, Mn, Zr) oxygen-permeable membranes. Materials Research Bulletin, 2006, 41, 683-689.	2.7	33
41	Predicting postoperative delirium after microvascular decompression surgery with machine learning. Journal of Clinical Anesthesia, 2020, 66, 109896.	0.7	33
42	A machine learning-based predictor for the identification of the recurrence of patients with gastric cancer after operation. Scientific Reports, 2021, 11, 1571.	1.6	31
43	Oxygen permeability and structural stability of Zr-doped oxygen-permeable Ba0.5Sr0.5Co0.8Fe0.2O3â^'Î´ membrane. Materials Letters, 2005, 59, 2285-2288.	1.3	30
44	Sintering Studies on 20 mol% Yttrium-Doped Barium Cerate. Journal of the American Ceramic Society, 2011, 94, 1800-1804.	1.9	28
45	Pd and Pdâ€"Ni alloy composite membranes fabricated by electroless plating method on capillary Î±-Al2O3 substrates. International Journal of Hydrogen Energy, 2015, 40, 3548-3556.	3.8	27
46	Initiation of oxygen permeation and POM reaction in different mixed conducting ceramic membrane reactors. Catalysis Today, 2006, 118, 144-150.	2.2	24
47	Phase Identification of the Layered Perovskite Ce_{<i>x</i>}Sr_{2â€"<i>x</i>}MnO₄ and Application for Solar Thermochemical Water Splitting. Inorganic Chemistry, 2019, 58, 7705-7714.	1.9	24
48	Insights into the Proton Transport Mechanism in TiO₂ Simple Oxides by <i>In Situ</i> Raman Spectroscopy. ACS Applied Materials & Interfaces, 2020, 12, 38012-38018.	4.0	22
49	Thin Defect-Free Pd Membrane Deposited on Asymmetric Porous Stainless Steel Substrate. Industrial & Engineering Chemistry Research, 2005, 44, 8025-8032.	1.8	21
50	A comparative study of machine learning algorithms for predicting acute kidney injury after liver cancer resection. PeerJ, 2020, 8, e8583.	0.9	21
51	Anomalous low-temperature proton conductivity enhancement in a novel protonic nanocomposite. Physical Chemistry Chemical Physics, 2014, 16, 5076-5080.	1.3	19
52	Fabricating ceramics with embedded microchannels using an integrated additive manufacturing and laser machining method. Journal of the American Ceramic Society, 2019, 102, 1071-1082.	1.9	18
53	A novel wet-chemistry method for the synthesis of multicomponent nanoparticles: A case study of BaCe0.7Zr0.1Y0.1Yb0.1O3â^'Î´. Materials Letters, 2013, 92, 382-385.	1.3	17
54	Oxygen exchange and bulk diffusivity of BaCo0.4Fe0.4Zr0.1Y0.1O3-Î´: Quantitative assessment of active cathode material for protonic ceramic fuel cells. Solid State Ionics, 2021, 368, 115639.	1.3	17

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55	Electrical conductivities of nano ionic composite based on yttrium-doped barium zirconate and palladium metal. Solid State Ionics, 2012, 211, 26-33.	1.3	16
56	Predicting Peritoneal Metastasis of Gastric Cancer Patients Based on Machine Learning. Cancer Control, 2020, 27, 107327482096890.	0.7	16
57	Machine learning-based microstructure prediction during laser sintering of alumina. Scientific Reports, 2021, 11, 10724.	1.6	16
58	Simple and Efficient Fabrication of Mayenite Electrides from a Solution-Derived Precursor. Inorganic Chemistry, 2017, 56, 11702-11709.	1.9	15
59	Engineering of microstructures of protonic ceramics by a novel rapid laser reactive sintering for ceramic energy conversion devices. Solid State Ionics, 2018, 320, 369-377.	1.3	15
60	Titanium-based perovskite-type mixed conducting ceramic membranes for oxygen permeation. Materials Letters, 2002, 56, 958-962.	1.3	14
61	Preparation of Thin Palladium Membrane on Porous Stainless Stell Support Modified with Cerium Hydroxide. Journal of the Japan Petroleum Institute, 2004, 47, 64-65.	0.4	14
62	Developing Machine Learning Algorithms to Predict Pulmonary Complications After Emergency Gastrointestinal Surgery. Frontiers in Medicine, 2021, 8, 655686.	1.2	14
63	Facile and Massive Aluminothermic Synthesis of Mayenite Electrides from Cost-Effective Oxide and Metal Precursors. Inorganic Chemistry, 2019, 58, 960-967.	1.9	13
64	A Novel Laser 3D Printing Method for the Advanced Manufacturing of Protonic Ceramics. Membranes, 2020, 10, 98.	1.4	13
65	Stable perovskite-fluorite dual-phase composites synthesized by one-pot solid-state reactive sintering for protonic ceramic fuel cells. Ceramics International, 2021, 47, 32856-32866.	2.3	13
66	Synthesis of high surface area CaxLa(1âˆ’x)Al(1âˆ’x)MnxO(3âˆ’Î´) perovskite oxides for oxygen reduction electrocatalysis in alkaline media. Catalysis Science and Technology, 2016, 6, 7744-7751.	2.1	12
67	Supervised Machine Learning Predictive Analytics For Triple-Negative Breast Cancer Death Outcomes . OncoTargets and Therapy, 2019, Volume 12, 9059-9067.	1.0	12
68	Internal Reduction of Ni²⁺ in ZrO₂ Stabilized with 10Âmol% Y₂O₃ Examined with VSM and SQUID Magnetometry. Journal of the American Ceramic Society, 2012, 95, 4008-4014.	1.9	10
69	Oneâ€Step Fabrication of Nanocrystalline Nanonetwork SnO₂ Gas Sensors by Integrated Multilaser Processing. Advanced Materials Technologies, 2020, 5, 2000281.	3.0	10
70	Ultraâ€fast, selective, nonâ€melting, laser sintering of alumina with anisotropic and sizeâ€suppressed grains. Journal of the American Ceramic Society, 2021, 104, 1997-2006.	1.9	10
71	Low/intermediate temperature pyrolyzed polysiloxane derived ceramics with increased carbon for electrical applications. Journal of the European Ceramic Society, 2021, 41, 5882-5889.	2.8	10
72	Effect of Infiltration of Barium Carbonate Nanoparticles on the Electrochemical Performance of La0.6Sr0.4Co0.2Fe0.8O3âˆ’Î´ Cathodes for Protonic Ceramic Fuel Cells. Jom, 2019, 71, 90-95.	0.9	9

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73	Laser-assisted embedding of all-glass optical fiber sensors into bulk ceramics for high-temperature applications. Optics and Laser Technology, 2020, 128, 106223.	2.2	9
74	The effect of laser sintering on the microstructure, relative density, and cracking of solâ€gelâ€“derived silica thin films. Journal of the American Ceramic Society, 2020, 103, 70-81.	1.9	8
75	Rapid Laser Reactive Sintering for Sustainable and Clean Preparation of Protonic Ceramics. ACS Omega, 2020, 5, 11637-11642.	1.6	8
76	Rapid laser reactive sintering of BaCe0.7Zr0.1Y0.1Yb0.1O3-Î´ electrolyte for protonic ceramic fuel cells. Journal of Power Sources Advances, 2020, 4, 100017.	2.6	7
77	Moderate temperature sintering of BaZr0.8Y0.2O3-Î´ protonic ceramics by A novel cold sintering pretreatment. Ceramics International, 2021, 47, 11313-11319.	2.3	7
78	Electrically Accelerated Selfâ€Healable Polyionic Liquid Copolymers. Small, 2022, 18, e2201952.	5.2	7
79	Predicting the formation of fractionally doped perovskite oxides by a function-confined machine learning method. Communications Materials, 2022, 3, .	2.9	7
80	Insight of BaCe_{0.5}Fe_{0.5}O_{3âˆ’}<i>_{Î´}</i> twin perovskite oxide composite for solid oxide electrochemical cells. Journal of the American Ceramic Society, 2023, 106, 186-200.	1.9	7
81	Characterization of Nickel Ions in Nickelâ€Doped Yttriaâ€Stabilized Zirconia. Journal of the American Ceramic Society, 2014, 97, 1041-1047.	1.9	6
82	Insights into the dynamic hydrogenation of mayenite [Ca24Al28O64]4+(O2âˆ’)2: Mixed ionic and electronic conduction within the sub-nanometer cages. International Journal of Hydrogen Energy, 2019, 44, 18360-18371.	3.8	5
83	Rapid Laser Processing of Thin Srâ€Doped LaCrO_{3â€“<i>Î´</i>} Interconnects for Solid Oxide Fuel Cells. Energy Technology, 2020, 8, 2000364.	1.8	5
84	Advanced Manufacturing of Intermediate-Temperature Protonic Ceramic Electrochemical Cells. Electrochemical Society Interface, 2020, 29, 67-73.	0.3	5
85	Predicting intraoperative bleeding in patients undergoing a hepatectomy using multiple machine learning and deep learning techniques. Journal of Clinical Anesthesia, 2021, 74, 110444.	0.7	5
86	Porous Zr-Doped Ceria Microspheres for Thermochemical Splitting of Carbon Dioxide. ACS Applied Energy Materials, 2021, 4, 10451-10458.	2.5	5
87	Constructing a prediction model for difficult intubation of obese patients based on machine learning. Journal of Clinical Anesthesia, 2021, 72, 110278.	0.7	4
88	Predicting chronic pain in postoperative breast cancer patients with multiple machine learning and deep learning models. Journal of Clinical Anesthesia, 2021, 74, 110423.	0.7	4
89	Machine Learning Can Predict Total Death After Radiofrequency Ablation in Liver Cancer Patients. Clinical Medicine Insights: Oncology, 2021, 15, 117955492110000.	0.6	4
90	Bi4Cu0.2V1.8 O11â€“Î´ based membrane electrochemical reactors for propane oxidation at moderate temperaturesbased membrane electrochemical reactors for propane oxidation at moderate temperatures. Ionics, 2005, 11, 184-188.	1.2	3

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91	Construction of a predictive model of post-intubation hypotension in critically ill patients using multiple machine learning classifiers. Journal of Clinical Anesthesia, 2021, 72, 110279.	0.7	3
92	Chemically Inert Hydrocarbon-Based Slurries for Rapid Laser Sintering of Thin Proton-Conducting Ceramics. Materials Research Bulletin, 2021, 143, 111446.	2.7	3
93	Direct inkjet printing of mullite nano-ribbons from the solâ€“gel precursor. Journal of Sol-Gel Science and Technology, 2020, 95, 66-76.	1.1	2
94	High-Performance Tubular Protonic Ceramic Electrochemical Cells Manufactured by Laser 3D Printing Technique. ECS Meeting Abstracts, 2021, MA2021-02, 1381-1381.	0.0	2
95	Ultra-Fast Laser Fabrication of Alumina Micro-Sample Array and High-Throughput Characterization of Microstructure and Hardness. Crystals, 2021, 11, 890.	1.0	1
96	Advanced Manufacturing for High-Temperature Materials. Electrochemical Society Interface, 2020, 29, 45-45.	0.3	1
97	Picosecond Laser Cutting-Assisted Rapid Laser Reactive Sintering for the Fabrication of Crack-Free Protonic Ceramic Electrochemical Cells. ECS Meeting Abstracts, 2021, MA2021-02, 1384-1384.	0.0	1
98	Investigation of novel zirconium based perovskite-type mixed conducting membranes for oxygen separation. Science Bulletin, 2001, 46, 473-477.	1.7	0
99	A preface to the special issue on â€œThe 6th European Fuel Cell Technology & Applications Piero Lunghi Conference & Exhibition (EFC15), 16â€“18 December 2015, Naples, Italyâ€• International Journal of Hydrogen Energy, 2017, 42, 1577-1578.	3.8	0
100	Rapid Laser Processing of Thin Srâ€•Doped LaCrO_{3â€“<i>Î´</i>} Interconnects for Solid Oxide Fuel Cells. Energy Technology, 2020, 8, 2070104.	1.8	0
101	(Invited) Laser 3D Printing of Highly Compacted Protonic Ceramic Electrochemical Cells. ECS Meeting Abstracts, 2019, , .	0.0	0
102	(Invited) Recent Progress in Low-Temperature Proton Conducting Ceramics for Hydrogen Isotope Processing. ECS Meeting Abstracts, 2019, , .	0.0	0
103	Triple Conducting Perovskite Oxide Nanocomposites As Oxygen Electrodes for Intermediate-Temperature Protonic Ceramic Cells. ECS Meeting Abstracts, 2019, , .	0.0	0
104	pSynGAP1 disturbance-mediated hippocampal oscillation network impairment might contribute to long-term neurobehavioral abnormities in sepsis survivors. Aging, 2020, 12, 23146-23164.	1.4	0
105	(Invited) Laser Processing of Solid-state Electrolytes for All-Solid-state Lithium Batteries. ECS Meeting Abstracts, 2021, MA2021-02, 1389-1389.	0.0	0
106	Rapid Laser Reactive Sintering of Li7La3Zr2O12-Based Solid State Battery Electrolytes. ECS Meeting Abstracts, 2021, MA2021-02, 1390-1390.	0.0	0