

Stuart M Holmes

List of Publications by Year in descending order

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83
papers

2,396
citations

201674

27
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214800

47
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87
all docs

87
docs citations

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times ranked

3335
citing authors

#	ARTICLE	IF	CITATIONS
1	Insights into the performance and degradation of polybenzimidazole/muscovite composite membranes in high-temperature proton exchange membrane fuel cells. <i>Journal of Membrane Science</i> , 2022, 641, 119868.	8.2	32
2	High-performance polymer electrolyte membranes incorporated with 2D silica nanosheets in high-temperature proton exchange membrane fuel cells. <i>Journal of Energy Chemistry</i> , 2022, 64, 323-334.	12.9	36
3	The performance and durability of high-temperature proton exchange membrane fuel cells enhanced by single-layer graphene. <i>Nano Energy</i> , 2022, 93, 106829.	16.0	25
4	Utilization of 3D printed carbon gas diffusion layers in polymer electrolyte membrane fuel cells. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 23393-23410.	7.1	16
5	Performance and Durability of HT-PEMFC Enhanced By One-Step Electrochemical Exfoliated Phosphonated Graphene Oxide. <i>ECS Meeting Abstracts</i> , 2022, MA2022-01, 628-628.	0.0	0
6	Single-Layer-Graphene and Electrochemical Exfoliated Graphene Oxide for HT-PEMFC. <i>ECS Meeting Abstracts</i> , 2022, MA2022-01, 1526-1526.	0.0	0
7	Manufacture and Performance of 3D Printed Carbonised Gas Diffusion Layers. <i>ECS Meeting Abstracts</i> , 2022, MA2022-01, 1433-1433.	0.0	0
8	(Digital Presentation) Durable Silica Nanosheets/Carbon Black Supported Catalyst for Proton Exchange Membrane Fuel Cells. <i>ECS Meeting Abstracts</i> , 2022, MA2022-01, 1519-1519.	0.0	0
9	Using the ash of common water reeds as a silica source for producing high purity ZSM-5 zeolite microspheres. <i>Microporous and Mesoporous Materials</i> , 2021, 316, 110953.	4.4	17
10	Oleylamine Aging of PtNi Nanoparticles Giving Enhanced Functionality for the Oxygen Reduction Reaction. <i>Nano Letters</i> , 2021, 21, 3989-3996.	9.1	37
11	One step electrochemical exfoliation of natural graphite flakes into graphene oxide for polybenzimidazole composite membranes giving enhanced performance in high temperature fuel cells. <i>Journal of Power Sources</i> , 2021, 491, 229550.	7.8	24
12	A structured catalyst support combining electrochemically exfoliated graphene oxide and carbon black for enhanced performance and durability in low-temperature hydrogen fuel cells. <i>Energy</i> , 2021, 226, 120318.	8.8	20
13	Recent advances in phosphoric acid-based membranes for high-temperature proton exchange membrane fuel cells. <i>Journal of Energy Chemistry</i> , 2021, 63, 393-429.	12.9	52
14	Lab-based X-ray micro-computed tomography coupled with machine-learning segmentation to investigate phosphoric acid leaching in high-temperature polymer electrolyte fuel cells. <i>Journal of Power Sources</i> , 2021, 509, 230347.	7.8	14
15	Water Cluster Characteristics in X-Ray Computed Tomography Gas Diffusion Layer Microstructures Using Numerical Simulations. <i>ECS Meeting Abstracts</i> , 2021, MA2021-02, 1008-1008.	0.0	0
16	Graphene-Based Materials for High Temperature Fuel Cell Applications. <i>ECS Meeting Abstracts</i> , 2021, MA2021-02, 1121-1121.	0.0	0
17	Improvement of Performance and Lifetime of Polybenzimidazole Membranes in High Temperature Fuel Cells by Incorporation of Muscovite. <i>ECS Meeting Abstracts</i> , 2021, MA2021-02, 1134-1134.	0.0	0
18	Synthesis of a high-temperature stable electrochemically exfoliated graphene. <i>Carbon</i> , 2020, 157, 681-692.	10.3	55

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19	Selective adsorption of ethane over ethylene on M(bdc)(ted) _{0.5} (M = Co, Cu, Ni, Zn) metal-organic frameworks (MOFs). <i>Microporous and Mesoporous Materials</i> , 2020, 292, 109724.	4.4	48
20	Properties and DMFC performance of nafion/mordenite composite membrane fabricated by solution-casting method with different solvent ratio. <i>Energy</i> , 2020, 190, 116451.	8.8	19
21	Immobilization of cobalt ions using hierarchically porous 4A zeolite-based carbon composites: Ion-exchange and solidification. <i>Journal of Water Process Engineering</i> , 2020, 33, 101059.	5.6	38
22	Production of High-Quality Graphene Using a Novel Electrochemical Intercalation-Exfoliation Approach. <i>ECS Meeting Abstracts</i> , 2020, MA2020-01, 864-864.	0.0	0
23	Pore-Scale Performance Analysis of Ordered Microstructures As Gas Diffusion Layers in Fuel Cells. <i>ECS Meeting Abstracts</i> , 2020, MA2020-01, 1610-1610.	0.0	1
24	Synthesis and Applications of High Quality Graphene Made By a Novel Electrochemical Exfoliation of Natural Graphite Flakes. <i>ECS Meeting Abstracts</i> , 2020, MA2020-01, 862-862.	0.0	0
25	Incorporation of Graphene and Graphene-Based Materials into Membranes As an Alternative Electrolyte Configuration for Low and High Temperature Polymeric Electrolyte Membranes Fuel Cells. <i>ECS Meeting Abstracts</i> , 2020, MA2020-01, 1603-1603.	0.0	0
26	Synthesis of High-Quality Graphene Oxide Made By a Novel One-Step Electrochemical Exfoliation of Natural Graphite Flakes Based on a 3D-Printed Reactor. <i>ECS Meeting Abstracts</i> , 2020, MA2020-02, 1100-1100.	0.0	0
27	Nitrogen Doped Reduced Electrochemically Exfoliated Graphene Oxide Inserted Carbon Black As Novel Catalyst Support for the Hydrogen Fuel Cell. <i>ECS Meeting Abstracts</i> , 2020, MA2020-02, 2323-2323.	0.0	1
28	Production of High-Quality Graphene Using a Novel Electrochemical Intercalation-Exfoliation Approach. <i>ECS Meeting Abstracts</i> , 2020, MA2020-02, 1116-1116.	0.0	0
29	Incorporation of Graphene and Graphene-Based Materials into Membranes As an Alternative Electrolyte Configuration for Low and High Temperature Polymeric Electrolyte Membranes Fuel Cells. <i>ECS Meeting Abstracts</i> , 2020, MA2020-02, 2247-2247.	0.0	0
30	Water Distribution in Fuel Cell Gas Channels Using a Mechanistic Discrete Particle Model. <i>ECS Meeting Abstracts</i> , 2020, MA2020-02, 2090-2090.	0.0	2
31	Improving the performance of direct methanol fuel cells by implementing multilayer membranes blended with cellulose nanocrystals. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 30409-30419.	7.1	27
32	The use of a sucrose precursor to prepare a carbon membrane for the separation of hydrogen from methane. <i>RSC Advances</i> , 2019, 9, 10437-10444.	3.6	5
33	Single Layer 2D Crystals for Electrochemical Applications of Ion Exchange Membranes and Hydrogen Evolution Catalysts. <i>Advanced Materials Interfaces</i> , 2019, 6, 1801838.	3.7	25
34	Platinum Supported on Electrochemically-Exfoliated Graphene Oxide As a Catalyst for Improving the Performance of the Hydrogen Fuel Cell. <i>ECS Meeting Abstracts</i> , 2019, .	0.0	0
35	Understanding the seeding mechanism of hierarchically porous zeolite/carbon composites. <i>Microporous and Mesoporous Materials</i> , 2018, 268, 109-116.	4.4	28
36	The supercapacitor performance of hierarchical porous activated carbon electrodes synthesised from demineralised (waste) cumin plant by microwave pretreatment. <i>Journal of Industrial and Engineering Chemistry</i> , 2018, 61, 124-132.	5.8	50

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37	Homogeneous polymer/filler composite membrane by spraying method for enhanced direct methanol fuel cell performance. International Journal of Hydrogen Energy, 2018, 43, 14675-14690.	7.1	19
38	2D Materials for the Electro Oxidation of Formic Acid. ECS Meeting Abstracts, 2018, , .	0.0	0
39	New Approach to Improve the DMFC Performance By Nafion-Functionalized Graphene Oxide Matrix Membranes Using the Electrochemical Exfoliation of Graphite As a Source of the Graphene Oxide. ECS Meeting Abstracts, 2018, , .	0.0	0
40	Synthesis of Graphene By Electrochemical Exfoliation of Graphite in Aqueous Solution. ECS Meeting Abstracts, 2018, , .	0.0	1
41	Monolayer Graphene Based Membrane to Replace Nafion in PEM Fuel Cells. ECS Meeting Abstracts, 2018, , .	0.0	2
42	Optimum Membrane for Formic Acid Electro Oxidation. ECS Meeting Abstracts, 2018, , .	0.0	0
43	Polybenzimidazole Supported Monolayer Graphene Membrane for Inexpensive PEM Fuel Cells. ECS Meeting Abstracts, 2018, , .	0.0	0
44	Mordenite/Nafion and analcime/Nafion composite membranes prepared by spray method for improved direct methanol fuel cell performance. Applied Surface Science, 2017, 421, 24-41.	6.1	37
45	Growth of Carbon Nanotubes on Electrospun Cellulose Fibers for High Performance Supercapacitors. Journal of the Electrochemical Society, 2017, 164, A3220-A3228.	2.9	25
46	Enhanced performance based on a hybrid cathode backing layer using a biomass derived activated carbon framework for methanol fuel cells. Electrochimica Acta, 2017, 251, 51-59.	5.2	13
47	2D materials graphene and hBN boost DMFC performance. Fuel Cells Bulletin, 2017, 2017, 14.	0.1	4
48	2D Crystals Significantly Enhance the Performance of a Working Fuel Cell. Advanced Energy Materials, 2017, 7, 1601216.	19.5	53
49	Creating hierarchies promptly: Microwave-accelerated synthesis of ZSM-5 zeolites on macrocellular silicon carbide (SiC) foams. Chemical Engineering Journal, 2017, 312, 1-9.	12.7	73
50	Application of response surface methodology to optimize direct alcohol fuel cell power density for greener energy production. Journal of Cleaner Production, 2017, 142, 1309-1320.	9.3	48
51	Hierarchically porous zeolite X composites for manganese ion-exchange and solidification: Equilibrium isotherms, kinetic and thermodynamic studies. Chemical Engineering Journal, 2017, 308, 476-491.	12.7	46
52	Surface modification of mordenite in Nafion composite membrane for direct ethanol fuel cell and its characterizations: Effect of types of silane coupling agent. Journal of Environmental Chemical Engineering, 2016, 4, 2637-2646.	6.7	14
53	Hierarchical porous structured zeolite composite for removal of ionic contaminants from waste streams and effective encapsulation of hazardous waste. Journal of Hazardous Materials, 2016, 320, 241-251.	12.4	43
54	Electrochemically controlled ion exchange: proton ion exchange with sodium zeolite X and A. Journal of Solid State Electrochemistry, 2015, 19, 1985-1992.	2.5	13

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55	The removal of caesium ions using supported clinoptilolite. <i>Journal of Hazardous Materials</i> , 2015, 289, 1-8.	12.4	23
56	A novel approach to fabricate zeolite membranes for pervaporation processes. <i>Journal of Materials Chemistry A</i> , 2015, 3, 9799-9806.	10.3	21
57	The performance of supercapacitor electrodes developed from chemically activated carbon produced from waste tea. <i>Applied Surface Science</i> , 2015, 357, 696-703.	6.1	188
58	The effects of anodic treatment on the surface chemistry of a Graphite Intercalation Compound. <i>Electrochimica Acta</i> , 2014, 135, 568-577.	5.2	12
59	Supercapacitance from Cellulose and Carbon Nanotube Nanocomposite Fibers. <i>ACS Applied Materials & Interfaces</i> , 2013, 5, 9983-9990.	8.0	183
60	Evaluation of porous carbon substrates as catalyst supports for the cathode of direct methanol fuel cells. <i>RSC Advances</i> , 2012, 2, 1669-1674.	3.6	29
61	The direct synthesis of pure zeolite-A using "virgin"™ Kaolin. <i>RSC Advances</i> , 2012, 2, 11491.	3.6	19
62	The direct conversion of impure natural kaolin into pure zeolite catalysts. <i>Green Chemistry</i> , 2011, 13, 1152.	9.0	51
63	Hierarchical structures based on natural carbons and zeolites. <i>Journal of Materials Chemistry</i> , 2011, 21, 16529.	6.7	7
64	Characterization and fuel cell performance analysis of polyvinylalcohol/mordenite mixed-matrix membranes for direct methanol fuel cell use. <i>Electrochimica Acta</i> , 2011, 56, 8446-8456.	5.2	22
65	Nafion®/mordenite composite membranes for improved direct methanol fuel cell performance. <i>Journal of Membrane Science</i> , 2011, 369, 367-374.	8.2	46
66	Optimization of the Mechanical Performance of Bacterial Cellulose/Poly(l-lactic) Acid Composites. <i>ACS Applied Materials & Interfaces</i> , 2010, 2, 321-330.	8.0	101
67	Novel and modified materials for wastewater treatment applications. <i>Journal of Materials Chemistry</i> , 2008, 18, 2751.	6.7	108
68	Removal and immobilisation of cobalt ions by a novel, hierarchically structured, diatomite/zeolite Y composite. <i>Journal of Materials Chemistry</i> , 2007, 17, 1804-1808.	6.7	21
69	A novel porous carbon based on diatomaceous earth. <i>Chemical Communications</i> , 2006, , 2662.	4.1	44
70	Synthesis and Evaluation of a Low Pressure Drop Structured Catalyst for Use in the Reactive Distillation Process. <i>Industrial & Engineering Chemistry Research</i> , 2006, 45, 5268-5273.	3.7	0
71	Electrochemically Controlled Ion Exchange: Proton Exchange with Sodium Zeolite Y. <i>Angewandte Chemie - International Edition</i> , 2005, 44, 3075-3078.	13.8	23
72	Encapsulation of metal particles within the wall structure of mesoporous carbons. <i>Chemical Communications</i> , 2005, , 1912.	4.1	24

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73	Size Selective and Volume Exclusion Effects on Ion Transfer at the Silicalite Modified Liquid~Liquid Interface. <i>Journal of Physical Chemistry B</i> , 2005, 109, 19377-19384.	2.6	11
74	A novel approach to the elucidation of facilitated ion transfer mechanisms at the liquid/liquid interface. <i>Electrochemistry Communications</i> , 2004, 6, 294-298.	4.7	22
75	Potentiometry in aqueous solutions using zeolite films Electronic supplementary information (ESI) available: Additional figures. See http://www.rsc.org/suppdata/an/b3/b311868a/ . <i>Analyst, The</i> , 2004, 129, 157.	3.5	14
76	Electrochemistry of Cytochrome c at the Liquid~Liquid Interface. <i>Journal of Physical Chemistry B</i> , 2002, 106, 12101-12103.	2.6	29
77	Non-aqueous potentiometry using zeolites. <i>Analyst, The</i> , 2001, 126, 733-735.	3.5	11
78	Zeolite-membrane modulation of simple and facilitated ion transfer. <i>Analyst, The</i> , 2001, 126, 1857-1860.	3.5	16
79	Acid sites in mesoporous materials: a DRIFTS study. <i>Microporous and Mesoporous Materials</i> , 2001, 44-45, 793-799.	4.4	31
80	Hierarchical Pore Structures through Diatom Zeolitization. <i>Angewandte Chemie - International Edition</i> , 2000, 39, 2707-2710.	13.8	215
81	Zeolitic rectification of electrochemical ion transfer. <i>Journal of Electroanalytical Chemistry</i> , 2000, 483, 144-149.	3.8	23
82	A Novel Method for the Growth of Silicalite Membranes on Stainless Steel Supports. <i>Chemistry of Materials</i> , 1999, 11, 3329-3332.	6.7	49
83	In situ FTIR study of the formation of MCM-41. <i>Journal of the Chemical Society, Faraday Transactions</i> , 1998, 94, 2025-2032.	1.7	90