# Stuart M Holmes

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/5396483/publications.pdf

Version: 2024-02-01

| | | 201674 | 214800 |
|---|---|---|---|
| 83 | 2,396 | 27 | 47 |
| papers | citations | h-index | g-index |

| | | | |
|---|---|---|---|
| 87 | 87 | 87 | 3335 |
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Hierarchical Pore Structures through Diatom Zeolitization. Angewandte Chemie - International Edition, 2000, 39, 2707-2710. | 13.8 | 215 |
| 2 | The performance of supercapacitor electrodes developed from chemically activated carbon produced from waste tea. Applied Surface Science, 2015, 357, 696-703. | 6.1 | 188 |
| 3 | Supercapacitance from Cellulose and Carbon Nanotube Nanocomposite Fibers. ACS Applied Materials & Interfaces, 2013, 5, 9983-9990. | 8.0 | 183 |
| 4 | Novel and modified materials for wastewater treatment applications. Journal of Materials Chemistry, 2008, 18, 2751. | 6.7 | 108 |
| 5 | Optimization of the Mechanical Performance of Bacterial Cellulose/Poly(<scp>l</scp>-lactic) Acid Composites. ACS Applied Materials & Interfaces, 2010, 2, 321-330. | 8.0 | 101 |
| 6 | In situ FTIR study of the formation of MCM-41. Journal of the Chemical Society, Faraday Transactions, 1998, 94, 2025-2032. | 1.7 | 90 |
| 7 | 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 |
| 8 | Synthesis of a high-temperature stable electrochemically exfoliated graphene. Carbon, 2020, 157, 681-692. | 10.3 | 55 |
| 9 | 2D Crystals Significantly Enhance the Performance of a Working Fuel Cell. Advanced Energy Materials, 2017, 7, 1601216. | 19.5 | 53 |
| 10 | Recent advances in phosphoric acidâ€“based membranes for highâ€“temperature proton exchange membrane fuel cells. Journal of Energy Chemistry, 2021, 63, 393-429. | 12.9 | 52 |
| 11 | The direct conversion of impure natural kaolin into pure zeolite catalysts. Green Chemistry, 2011, 13, 1152. | 9.0 | 51 |
| 12 | The supercapacitor performance of hierarchical porous activated carbon electrodes synthesised from demineralised (waste) cumin plant by microwave pretreatment. Journal of Industrial and Engineering Chemistry, 2018, 61, 124-132. | 5.8 | 50 |
| 13 | A Novel Method for the Growth of Silicalite Membranes on Stainless Steel Supports. Chemistry of Materials, 1999, 11, 3329-3332. | 6.7 | 49 |
| 14 | 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 |
| 15 | Selective adsorption of ethane over ethylene on M(bdc)(ted)0.5 (M = Co, Cu, Ni, Zn) metal-organic frameworks (MOFs). Microporous and Mesoporous Materials, 2020, 292, 109724. | 4.4 | 48 |
| 16 | NafionÂ®/mordenite composite membranes for improved direct methanol fuel cell performance. Journal of Membrane Science, 2011, 369, 367-374. | 8.2 | 46 |
| 17 | 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 |
| 18 | A novel porous carbon based on diatomaceous earth. Chemical Communications, 2006, , 2662. | 4.1 | 44 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | 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 |
| 20 | Immobilization of cobalt ions using hierarchically porous 4A zeolite-based carbon composites: Ion-exchange and solidification. Journal of Water Process Engineering, 2020, 33, 101059. | 5.6 | 38 |
| 21 | 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 |
| 22 | Oleylamine Aging of PtNi Nanoparticles Giving Enhanced Functionality for the Oxygen Reduction Reaction. Nano Letters, 2021, 21, 3989-3996. | 9.1 | 37 |
| 23 | High-performance polymer electrolyte membranes incorporated with 2D silica nanosheets in high-temperature proton exchange membrane fuel cells. Journal of Energy Chemistry, 2022, 64, 323-334. | 12.9 | 36 |
| 24 | Insights into the performance and degradation of polybenzimidazole/muscovite composite membranes in highâ€“temperature proton exchange membrane fuel cells. Journal of Membrane Science, 2022, 641, 119868. | 8.2 | 32 |
| 25 | Acid sites in mesoporous materials: a DRIFTS study. Microporous and Mesoporous Materials, 2001, 44-45, 793-799. | 4.4 | 31 |
| 26 | Electrochemistry of Cytochromecat the Liquidâ"Liquid Interface. Journal of Physical Chemistry B, 2002, 106, 12101-12103. | 2.6 | 29 |
| 27 | Evaluation of porous carbon substrates as catalyst supports for the cathode of direct methanolfuel cells. RSC Advances, 2012, 2, 1669-1674. | 3.6 | 29 |
| 28 | Understanding the seeding mechanism of hierarchically porous zeolite/carbon composites. Microporous and Mesoporous Materials, 2018, 268, 109-116. | 4.4 | 28 |
| 29 | Improving the performance of direct methanol fuel cells by implementing multilayer membranes blended with cellulose nanocrystals. International Journal of Hydrogen Energy, 2019, 44, 30409-30419. | 7.1 | 27 |
| 30 | Growth of Carbon Nanotubes on Electrospun Cellulose Fibers for High Performance Supercapacitors. Journal of the Electrochemical Society, 2017, 164, A3220-A3228. | 2.9 | 25 |
| 31 | Single Layer 2D Crystals for Electrochemical Applications of Ion Exchange Membranes and Hydrogen Evolution Catalysts. Advanced Materials Interfaces, 2019, 6, 1801838. | 3.7 | 25 |
| 32 | The performance and durability of high-temperature proton exchange membrane fuel cells enhanced by single-layer graphene. Nano Energy, 2022, 93, 106829. | 16.0 | 25 |
| 33 | Encapsulation of metal particles within the wall structure of mesoporous carbons. Chemical Communications, 2005, , 1912. | 4.1 | 24 |
| 34 | One step electrochemical exfoliation of natural graphite flakes into graphene oxide for polybenzimidazole composite membranes giving enhanced performance in high temperature fuel cells. Journal of Power Sources, 2021, 491, 229550. | 7.8 | 24 |
| 35 | Zeolitic rectification of electrochemical ion transfer. Journal of Electroanalytical Chemistry, 2000, 483, 144-149. | 3.8 | 23 |
| 36 | Electrochemically Controlled Ion Exchange: Proton Exchange with Sodium Zeolite Y. Angewandte Chemie - International Edition, 2005, 44, 3075-3078. | 13.8 | 23 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | The removal of caesium ions using supported clinoptilolite. Journal of Hazardous Materials, 2015, 289, 1-8. | 12.4 | 23 |
| 38 | A novel approach to the elucidation of facilitated ion transfer mechanisms at the liquid/liquid interface. Electrochemistry Communications, 2004, 6, 294-298. | 4.7 | 22 |
| 39 | Characterization and fuel cell performance analysis of polyvinylalcoholâ€“mordenite mixed-matrix membranes for direct methanol fuel cell use. Electrochimica Acta, 2011, 56, 8446-8456. | 5.2 | 22 |
| 40 | Removal and immobilisation of cobalt ions by a novel, hierarchically structured, diatomite/zeolite Y composite. Journal of Materials Chemistry, 2007, 17, 1804-1808. | 6.7 | 21 |
| 41 | A novel approach to fabricate zeolite membranes for pervaporation processes. Journal of Materials Chemistry A, 2015, 3, 9799-9806. | 10.3 | 21 |
| 42 | A structured catalyst support combining electrochemically exfoliated graphene oxide and carbon black for enhanced performance and durability in low-temperature hydrogen fuel cells. Energy, 2021, 226, 120318. | 8.8 | 20 |
| 43 | The direct synthesis of pure zeolite-A using â€˜virginâ€™ Kaolin. RSC Advances, 2012, 2, 11491. | 3.6 | 19 |
| 44 | 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 |
| 45 | Properties and DMFC performance of nafion/mordenite composite membrane fabricated by solution-casting method with different solvent ratio. Energy, 2020, 190, 116451. | 8.8 | 19 |
| 46 | Using the ash of common water reeds as a silica source for producing high purity ZSM-5 zeolite microspheres. Microporous and Mesoporous Materials, 2021, 316, 110953. | 4.4 | 17 |
| 47 | Zeolite-membrane modulation of simple and facilitated ion transfer. Analyst, The, 2001, 126, 1857-1860. | 3.5 | 16 |
| 48 | Utilization of 3D printed carbon gas diffusion layers in polymer electrolyte membrane fuel cells. International Journal of Hydrogen Energy, 2022, 47, 23393-23410. | 7.1 | 16 |
| 49 | Potentiometry in aqueous solutions using zeolite filmsElectronic supplementary information (ESI) available: Additional figures. See http://www.rsc.org/suppdata/an/b3/b311868a/. Analyst, The, 2004, 129, 157. | 3.5 | 14 |
| 50 | 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 |
| 51 | Lab-based X-ray micro-computed tomography coupled with machine-learning segmentation to investigate phosphoric acid leaching in high-temperature polymer electrolyte fuel cells. Journal of Power Sources, 2021, 509, 230347. | 7.8 | 14 |
| 52 | 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 |
| 53 | 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 |
| 54 | The effects of anodic treatment on the surface chemistry of a Graphite Intercalation Compound. Electrochimica Acta, 2014, 135, 568-577. | 5.2 | 12 |

| # | Article | IF | Citations |
|---|---|---|---|
| 55 | Non-aqueous potentiometry using zeolites. Analyst, The, 2001, 126, 733-735. | 3.5 | 11 |
| 56 | Size Selective and Volume Exclusion Effects on Ion Transfer at the Silicalite Modified Liquidâ^'Liquid Interface. Journal of Physical Chemistry B, 2005, 109, 19377-19384. | 2.6 | 11 |
| 57 | Hierarchical structures based on natural carbons and zeolites. Journal of Materials Chemistry, 2011, 21, 16529. | 6.7 | 7 |
| 58 | The use of a sucrose precursor to prepare a carbon membrane for the separation of hydrogen from methane. RSC Advances, 2019, 9, 10437-10444. | 3.6 | 5 |
| 59 | 2D materials graphene and hBN boost DMFC performance. Fuel Cells Bulletin, 2017, 2017, 14. | 0.1 | 4 |
| 60 | Monolayer Graphene Based Membrane to Replace Nafion in PEM Fuel Cells. ECS Meeting Abstracts, 2018, , . | 0.0 | 2 |
| 61 | Water Distribution in Fuel Cell Gas Channels Using a Mechanistic Discrete Particle Model. ECS Meeting Abstracts, 2020, MA2020-02, 2090-2090. | 0.0 | 2 |
| 62 | Synthesis of Graphene By Electrochemical Exfoliation of Graphite in Aqueous Solution. ECS Meeting Abstracts, 2018, , . | 0.0 | 1 |
| 63 | Pore-Scale Performance Analysis of Ordered Microstructures As Gas Diffusion Layers in Fuel Cells. ECS Meeting Abstracts, 2020, MA2020-01, 1610-1610. | 0.0 | 1 |
| 64 | Nitrogen Doped Reduced Electrochemically Exfoliated Graphene Oxide Inserted Carbon Black As Novel Catalyst Support for the Hydrogen Fuel Cell. ECS Meeting Abstracts, 2020, MA2020-02, 2323-2323. | 0.0 | 1 |
| 65 | Synthesis and Evaluation of a Low Pressure Drop Structured Catalyst for Use in the Reactive Distillation Process. Industrial & Engineering Chemistry Research, 2006, 45, 5268-5273. | 3.7 | 0 |
| 66 | 2D Materials for the Electro Oxidation of Formic Acid. ECS Meeting Abstracts, 2018, , . | 0.0 | 0 |
| 67 | 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 |
| 68 | Optimum Membrane for Formic Acid Electro Oxidation. ECS Meeting Abstracts, 2018, , . | 0.0 | 0 |
| 69 | Polybenzimidazole Supported Monolayer Graphene Membrane for Inexpensive PEM Fuel Cells. ECS Meeting Abstracts, 2018, , . | 0.0 | 0 |
| 70 | Platinum Supported on Electrochemically-Exfoliated Graphene Oxide As a Catalyst for Improving the Performance of the Hydrogen Fuel Cell. ECS Meeting Abstracts, 2019, , . | 0.0 | 0 |
| 71 | Production of High-Quality Graphene Using a Novel Electrochemical Intercalation-Exfoliation Approach. ECS Meeting Abstracts, 2020, MA2020-01, 864-864. | 0.0 | 0 |
| 72 | Synthesis and Applications of High Quality Graphene Made By a Novel Electrochemical Exfoliation of Natural Graphite Flakes. ECS Meeting Abstracts, 2020, MA2020-01, 862-862. | 0.0 | 0 |

| # | Article | IF | Citations |
|---|---|---|---|
| 73 | Incorporation of Graphene and Graphene-Based Materials into Membranes As an Alternative Electrolyte Configuration for Low and High Temperature Polymeric Electrolyte Membranes Fuel Cells. ECS Meeting Abstracts, 2020, MA2020-01, 1603-1603. | 0.0 | 0 |
| 74 | Water Cluster Characteristics in X-Ray Computed Tomography Gas Diffusion Layer Microstructures Using Numerical Simulations. ECS Meeting Abstracts, 2021, MA2021-02, 1008-1008. | 0.0 | 0 |
| 75 | Graphene-Based Materials for High Temperature Fuel Cell Applications. ECS Meeting Abstracts, 2021, MA2021-02, 1121-1121. | 0.0 | 0 |
| 76 | Synthesis of High-Quality Graphene Oxide Made By a Novel One-Step Electrochemical Exfoliation of Natural Graphite Flakes Based on a 3D-Printed Reactor. ECS Meeting Abstracts, 2020, MA2020-02, 1100-1100. | 0.0 | 0 |
| 77 | Production of High-Quality Graphene Using a Novel Electrochemical Intercalation-Exfoliation Approach. ECS Meeting Abstracts, 2020, MA2020-02, 1116-1116. | 0.0 | 0 |
| 78 | Incorporation of Graphene and Graphene-Based Materials into Membranes As an Alternative Electrolyte Configuration for Low and High Temperature Polymeric Electrolyte Membranes Fuel Cells.. ECS Meeting Abstracts, 2020, MA2020-02, 2247-2247. | 0.0 | 0 |
| 79 | Improvement of Performance and Lifetime of Polybenzimidazole Membranes in High Temperature Fuel Cells by Incorporation of Muscovite. ECS Meeting Abstracts, 2021, MA2021-02, 1134-1134. | 0.0 | 0 |
| 80 | Performance and Durability of HT-PEMFC Enhanced By One-Step Electrochemical Exfoliated Phosphonated Graphene Oxide. ECS Meeting Abstracts, 2022, MA2022-01, 628-628. | 0.0 | 0 |
| 81 | Single-Layer-Graphene and Electrochemical Exfoliated Graphene Oxide for HT-PEMFC. ECS Meeting Abstracts, 2022, MA2022-01, 1526-1526. | 0.0 | 0 |
| 82 | Manufacture and Performance of 3D Printed Carbonised Gas Diffusion Layers. ECS Meeting Abstracts, 2022, MA2022-01, 1433-1433. | 0.0 | 0 |
| 83 | (Digital Presentation) Durable Silica Nanosheets/Carbon Black Supported Catalyst for Proton Exchange Membrane Fuel Cells. ECS Meeting Abstracts, 2022, MA2022-01, 1519-1519. | 0.0 | 0 |