

Heung Yong Ha

List of Publications by Year in descending order

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82
papers

3,734
citations

94433

37
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133252

59
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83
all docs

83
docs citations

83
times ranked

3522
citing authors

#	ARTICLE	IF	CITATIONS
1	Pt-CeO ₂ /C anode catalyst for direct methanol fuel cells. <i>Applied Catalysis B: Environmental</i> , 2008, 84, 773-782.	20.2	196
2	Characteristics of the PEMFC Repetitively Brought to Temperatures below 0°C. <i>Journal of the Electrochemical Society</i> , 2003, 150, A1667.	2.9	175
3	Recent progress in passive direct methanol fuel cells at KIST. <i>Journal of Power Sources</i> , 2004, 130, 172-177.	7.8	173
4	Fixation of Nanosized Proton Transport Channels in Membranes. <i>Macromolecules</i> , 2003, 36, 3228-3234.	4.8	141
5	Effects of Water Removal on the Performance Degradation of PEMFCs Repetitively Brought to <0°C. <i>Journal of the Electrochemical Society</i> , 2004, 151, A661.	2.9	128
6	A review on durability issues and restoration techniques in long-term operations of direct methanol fuel cells. <i>Journal of Power Sources</i> , 2015, 297, 224-241.	7.8	122
7	Structural characterization and surface modification of sulfonated polystyrene- <i>b</i> -(ethylene- <i>b</i> -butylene)- <i>b</i> -styrene triblock proton exchange membranes. <i>Journal of Membrane Science</i> , 2003, 214, 245-257.	8.2	105
8	Development of nanophase CeO ₂ -Pt/C cathode catalyst for direct methanol fuel cell. <i>Journal of Power Sources</i> , 2005, 140, 59-65.	7.8	100
9	A novel approach for forming carbon nanorods on the surface of carbon felt electrode by catalytic etching for high-performance vanadium redox flow battery. <i>Carbon</i> , 2018, 128, 31-37.	10.3	96
10	Performance evaluation of passive DMFC single cells. <i>Journal of Power Sources</i> , 2006, 158, 1256-1261.	7.8	95
11	On the consequences of methanol crossover in passive air-breathing direct methanol fuel cells. <i>Journal of Power Sources</i> , 2005, 142, 50-55.	7.8	90
12	Chemical vapor deposition of hydrogen-permselective silica films on porous glass supports from tetraethylorthosilicate. <i>Journal of Membrane Science</i> , 1993, 85, 279-290.	8.2	81
13	Properties of the TiO ₂ membranes prepared by CVD of titanium tetraisopropoxide. <i>Journal of Membrane Science</i> , 1996, 111, 81-92.	8.2	78
14	Enhancing the performance of all-vanadium redox flow batteries by decorating carbon felt electrodes with SnO ₂ nanoparticles. <i>Applied Energy</i> , 2018, 229, 910-921.	10.1	76
15	Facile Metal Coordination of Active Site Imprinted Nitrogen Doped Carbons for the Conservative Preparation of Non-Noble Metal Oxygen Reduction Electrocatalysts. <i>Advanced Energy Materials</i> , 2018, 8, 1701771.	19.5	73
16	Methane steam reforming in a Pd-Ru membrane reactor. <i>Korean Journal of Chemical Engineering</i> , 2000, 17, 288-291.	2.7	67
17	Title is missing!. <i>Macromolecular Rapid Communications</i> , 2002, 23, 753-756.	3.9	67
18	Influence of the solvent in anode catalyst ink on the performance of a direct methanol fuel cell. <i>Journal of Power Sources</i> , 2004, 135, 29-35.	7.8	63

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19	Fabrication and evaluation of membrane electrode assemblies by low-temperature decal methods for direct methanol fuel cells. <i>Journal of Power Sources</i> , 2009, 187, 378-386.	7.8	62
20	Excellent electrocatalytic effects of tin through in situ electrodeposition on the performance of all-vanadium redox flow batteries. <i>Journal of Materials Chemistry A</i> , 2017, 5, 17388-17400.	10.3	62
21	Effect of solvent and crystal size on the selectivity of ZSM-5/Nafion composite membranes fabricated by solution-casting method. <i>Solid State Ionics</i> , 2006, 177, 3233-3243.	2.7	61
22	Preparation and characterization of Pt nanowire by electrospinning method for methanol oxidation. <i>Electrochimica Acta</i> , 2010, 55, 4827-4835.	5.2	60
23	Nafion®-graft-polystyrene sulfonic acid membranes for direct methanol fuel cells. <i>Journal of Membrane Science</i> , 2006, 276, 51-58.	8.2	58
24	Characteristics of the Nafion ionomer-impregnated composite membrane for polymer electrolyte fuel cells. <i>Journal of Power Sources</i> , 2002, 109, 412-417.	7.8	57
25	The effect of pretreatment methods on the performance of passive DMFCs. <i>Electrochimica Acta</i> , 2004, 50, 781-785.	5.2	57
26	Investigations of performance degradation and mitigation strategies in direct methanol fuel cells. <i>International Journal of Hydrogen Energy</i> , 2009, 34, 2043-2051.	7.1	57
27	Nano-silica layered composite membranes prepared by PECVD for direct methanol fuel cells. <i>Electrochemistry Communications</i> , 2004, 6, 1069-1074.	4.7	56
28	Operational characteristics of a 50W DMFC stack. <i>Journal of Power Sources</i> , 2006, 155, 203-212.	7.8	56
29	Nano-structured Pt/Cr anode catalyst over carbon support, for direct methanol fuel cell. <i>Journal of Power Sources</i> , 2006, 156, 466-471.	7.8	52
30	High dispersion platinum catalyst using mesoporous carbon support for fuel cells. <i>Electrochimica Acta</i> , 2008, 54, 856-861.	5.2	51
31	Reduced graphene oxide as a stable and high-capacity cathode material for Na-ion batteries. <i>Scientific Reports</i> , 2017, 7, 40910.	3.3	49
32	Long-term durability test for direct methanol fuel cell made of hydrocarbon membrane. <i>International Journal of Hydrogen Energy</i> , 2010, 35, 6924-6933.	7.1	47
33	Effects of temperature and partial pressure of CO ₂ /O ₂ on corrosion behaviour of stainless-steel in molten Li/Na carbonate salt. <i>Journal of Power Sources</i> , 2000, 89, 1-6.	7.8	46
34	Preparation and Characterization of Nafion/Poly(1-vinylimidazole) Composite Membrane for Direct Methanol Fuel Cell Application. <i>Journal of the Electrochemical Society</i> , 2005, 152, A1366.	2.9	41
35	A direct methanol fuel cell system to power a humanoid robot. <i>Journal of Power Sources</i> , 2010, 195, 293-298.	7.8	40
36	Highly functionalized nanoporous thin carbon paper electrodes for high energy density of zero-gap vanadium redox flow battery. <i>Chemical Engineering Journal</i> , 2019, 378, 122190.	12.7	40

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37	Electrochemical studies of DMFC anodes with different ionomer content. <i>Electrochimica Acta</i> , 2004, 50, 801-806.	5.2	39
38	Sulfonated poly(ether sulfone) for universal polymer electrolyte fuel cell operations. <i>Journal of Power Sources</i> , 2006, 160, 353-358.	7.8	38
39	Influence of water and degree of sulfonation on the structure and dynamics of SPEEK studied by solid-state ¹³ C and ¹ H NMR. <i>Polymer</i> , 2009, 50, 2664-2673.	3.8	36
40	Plasma-functionalized carbon-layered separators for improved performance of lithium sulfur batteries. <i>Journal of Materials Chemistry A</i> , 2019, 7, 3772-3782.	10.3	35
41	Investigation of various ionomer-coated carbon supports for direct methanol fuel cell applications. <i>Applied Catalysis B: Environmental</i> , 2008, 77, 373-385.	20.2	34
42	A highly efficient and stable organic additive for the positive electrolyte in vanadium redox flow batteries: taurine biomolecules containing NH_2 and SO_3H functional groups. <i>Journal of Materials Chemistry A</i> , 2018, 6, 4695-4705.	10.3	33
43	Determination of lithium diffusion coefficient and reaction mechanism into ultra-small nanocrystalline SnO ₂ particles. <i>Journal of Power Sources</i> , 2019, 419, 229-236.	7.8	33
44	Properties of the reinforced composite membranes formed by melt soluble ion conducting polymer resins for PEMFCs. <i>Electrochimica Acta</i> , 2004, 50, 571-575.	5.2	29
45	Behavioral pattern of a monopolar passive direct methanol fuel cell stack. <i>Journal of Power Sources</i> , 2006, 157, 253-259.	7.8	29
46	Effect of the ionomers in the electrode on the performance of PEMFC under non-humidifying conditions. <i>Electrochimica Acta</i> , 2004, 50, 673-676.	5.2	28
47	Characteristics of the Nafion [®] -impregnated polycarbonate composite membranes for PEMFCs. <i>Electrochimica Acta</i> , 2004, 50, 577-581.	5.2	28
48	Surface Characterization of Argon-Plasma-Modified Perfluorosulfonic Acid Membranes. <i>Journal of Physical Chemistry B</i> , 2006, 110, 4240-4246.	2.6	28
49	Physical degradation of cathode catalyst layer: A major contributor to accelerated water flooding in long-term operation of DMFCs. <i>Applied Energy</i> , 2014, 129, 346-353.	10.1	26
50	Techno-economic and environmental evaluation of nano calcium carbonate production utilizing the steel slag. <i>Journal of CO₂ Utilization</i> , 2020, 37, 113-121.	6.8	25
51	Polybenzimidazole membranes for vanadium redox flow batteries: Effect of sulfuric acid doping conditions. <i>Chemical Engineering Journal</i> , 2022, 435, 134902.	12.7	25
52	Impact of cathode channel depth on performance of direct methanol fuel cells. <i>Journal of Power Sources</i> , 2008, 183, 226-231.	7.8	24
53	Incorporation of Zirconium Hydrogen Phosphate into Porous Ionomer Membranes. <i>Electrochemical and Solid-State Letters</i> , 2004, 7, A127.	2.2	23
54	Modification of carbon support to enhance performance of direct methanol fuel cell. <i>Journal of Power Sources</i> , 2006, 162, 1023-1028.	7.8	22

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55	Operation of a proton exchange membrane fuel cell under non-humidified conditions using a membrane-electrode assemblies with composite membrane and electrode. <i>Journal of Power Sources</i> , 2007, 167, 325-329.	7.8	21
56	Alumina composite membranes prepared by MOCVD. <i>Journal of Materials Science Letters</i> , 1997, 16, 1023-1026.	0.5	20
57	An efficient decal transfer method using a roll-press to fabricate membrane electrode assemblies for direct methanol fuel cells. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 18463-18470.	7.1	20
58	Nafion composite membranes containing rod-shaped polyrotaxanes for direct methanol fuel cells. <i>Macromolecular Research</i> , 2006, 14, 214-219.	2.4	19
59	A study on enzymatic reaction using a liquid emulsion membrane technique. <i>Biotechnology and Bioengineering</i> , 1992, 39, 125-131.	3.3	17
60	A novel high performance configuration of electrochemical cell to produce alkali for sequestration of carbon dioxide. <i>Electrochimica Acta</i> , 2016, 219, 655-663.	5.2	16
61	Arsenic removal from groundwater using low-cost carbon composite electrodes for capacitive deionization. <i>Water Science and Technology</i> , 2016, 73, 3064-3071.	2.5	15
62	Comparative studies of a single cell and a stack of direct methanol fuel cells. <i>Korean Journal of Chemical Engineering</i> , 2005, 22, 406-411.	2.7	14
63	Sensor-less control of the methanol concentration of direct methanol fuel cells at varying ambient temperatures. <i>Applied Energy</i> , 2014, 129, 104-111.	10.1	14
64	A sensor-less methanol concentration control system based on feedback from the stack temperature. <i>Applied Energy</i> , 2014, 131, 257-266.	10.1	13
65	A novel method of methanol concentration control through feedback of the amplitudes of output voltage fluctuations for direct methanol fuel cells. <i>Energy</i> , 2016, 100, 217-226.	8.8	13
66	Elucidating the performance-limiting electrode for all-vanadium redox flow batteries through in-depth physical and electrochemical analyses. <i>Journal of Industrial and Engineering Chemistry</i> , 2019, 80, 450-460.	5.8	13
67	Impedance Analysis on Transient Behavior of DMFC Anodes during Preconditioning Process. <i>Journal of the Electrochemical Society</i> , 2005, 152, A2345.	2.9	12
68	Effects of polyamidoamine dendrimers on the catalytic layers of a membrane electrode assembly in fuel cells. <i>Macromolecular Research</i> , 2006, 14, 101-106.	2.4	12
69	Performance restoration of direct methanol fuel cells in long-term operation using a hydrogen evolution method. <i>Applied Energy</i> , 2014, 114, 164-171.	10.1	12
70	Petal-shaped SnO ₂ free-standing electrodes with electrically conducting layers via a plasma-activated nitrogen doping process for high performance lithium-ion batteries. <i>Chemical Engineering Journal</i> , 2021, 412, 128614.	12.7	11
71	Effects of organo-functionalization and sulfonation of MCM-41 on the proton selectivities of MCM-41/Nafion composite membranes for DMFC. <i>Microporous and Mesoporous Materials</i> , 2008, 114, 238-249.	4.4	10
72	Effect of pretreatment methods on performance of passive DMFCs. <i>Fuel Cells Bulletin</i> , 2004, 2004, 11-14.	0.1	9

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73	Synthesis of branched carbon nanotubes by carbonization of solid polyvinylidene fluoride fibers. Carbon, 2011, 49, 4601-4603.	10.3	9
74	Development of a compact continuous-flow electrochemical cell for an energy efficient production of alkali. Electrochimica Acta, 2015, 180, 845-851.	5.2	9
75	Composite polymer electrolyte membranes containing polyrotaxanes. Renewable Energy, 2008, 33, 248-253.	8.9	8
76	Properties and formation mechanisms of branched carbon nanotubes from polyvinylidene fluoride fibers. Carbon, 2013, 63, 567-571.	10.3	7
77	Enzyme-Inspired Formulation of the Electrolyte for Stable and Efficient Vanadium Redox Flow Batteries at High Temperatures. ACS Applied Materials & Interfaces, 2019, 11, 26842-26853.	8.0	7
78	Parametric investigation of a high-yield decal technique to fabricate membrane electrode assemblies for direct methanol fuel cells. International Journal of Hydrogen Energy, 2013, 38, 12427-12437.	7.1	6
79	High Performance CeO ₂ - and Ce _{0.8} Sm _{0.2} O ₂ -Modified Pt/C Catalysts for the Cathode of a DMFC. Journal of the Electrochemical Society, 2009, 156, B801.	2.9	4
80	Tailoring cathode structure of catalyst coated membranes for performance enhancement in direct methanol fuel cells. International Journal of Hydrogen Energy, 2016, 41, 21366-21374.	7.1	4
81	The relations of inattention and hyperactivity to academic cheating in adolescents with executive functioning problems. Psychology in the Schools, 2022, 59, 784-799.	1.8	2
82	Comparison of Various Electrode Fabrication Methods for Use in an Electrolyzer to Produce of HCl and NaOH from NaCl. ECS Meeting Abstracts, 2020, MA2020-02, 3855-3855.	0.0	0