Siti Kartom Kamarudin

List of Publications by Year
in descending order

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126 papers	8,393 citations	50170 46 h-index	46693 89 g-index
128 all docs	128 docs citations	128 times ranked	6958 citing authors

#	Article	IF	Citations
1	Overview on the application of direct methanol fuel cell (DMFC) for portable electronic devices. International Journal of Hydrogen Energy, 2009, 34, 6902-6916.	3.8	678
2	Review: Direct ethanol fuel cells. International Journal of Hydrogen Energy, 2013, 38, 9438-9453.	3.8	478
3	Direct liquid fuel cells: A review. International Journal of Hydrogen Energy, 2017, 42, 10142-10157.	3.8	427
4	Catalysts in direct ethanol fuel cell (DEFC): An overview. International Journal of Hydrogen Energy, 2016, 41, 4214-4228.	3.8	348
5	Overview on the challenges and developments of micro-direct methanol fuel cells (DMFC). Journal of Power Sources, 2007, 163, 743-754.	4.0	347
6	Nanocatalyst for direct methanol fuel cell (DMFC). International Journal of Hydrogen Energy, 2010, 35, 7957-7970.	3.8	259
7	Overview of hybrid membranes for direct-methanol fuel-cell applications. International Journal of Hydrogen Energy, 2010, 35, 2160-2175.	3.8	225
8	Direct conversion technologies of methane to methanol: An overview. Renewable and Sustainable Energy Reviews, 2016, 65, 250-261.	8.2	194
9	Platinum-Based Catalysts on Various Carbon Supports and Conducting Polymers for Direct Methanol Fuel Cell Applications: a Review. Nanoscale Research Letters, 2018, 13, 410.	3.1	189
10	Chitosan and alginate types of bio-membrane in fuel cell application: An overview. Journal of Power Sources, 2015, 289, 71-80.	4.0	161
11	Modified Nafion membranes for direct alcohol fuel cells: An overview. Renewable and Sustainable Energy Reviews, 2016, 65, 841-852.	8.2	160
12	Active direct methanol fuel cell: An overview. International Journal of Hydrogen Energy, 2020, 45, 19620-19641.	3.8	150
13	An overview of polymer electrolyte membrane electrolyzer for hydrogen production: Modeling and mass transport. Journal of Power Sources, 2016, 309, 56-65.	4.0	148
14	Recent progress of carbonaceous materials in fuel cell applications: An overview. Chemical Engineering Journal, 2017, 309, 489-502.	6.6	145
15	Passive direct methanol fuel cells for portable electronic devices. Applied Energy, 2011, 88, 1681-1689.	5.1	142
16	Green synthesis of metal and metal oxide nanoparticles via plant extracts: an overview. Materials Research Express, 2019, 6, 112004.	0.8	142
17	Critical challenges in the system development of direct alcohol fuel cells as portable power supplies: An overview. International Journal of Hydrogen Energy, 2019, 44, 3031-3054.	3.8	140
18	Membranes for direct ethanol fuel cells: An overview. Applied Energy, 2016, 163, 334-342.	5.1	139

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19	Recent progress of anode catalysts and their support materials for methanol electrooxidation reaction. International Journal of Hydrogen Energy, 2019, 44, 14744-14769.	3.8	132
20	Electrode in direct methanol fuel cells. International Journal of Hydrogen Energy, 2010, 35, 4606-4621.	3.8	130
21	Overview on nanostructured membrane in fuel cell applications. International Journal of Hydrogen Energy, 2011, 36, 3187-3205.	3.8	129
22	Recent advances in additiveâ€enhanced polymer electrolyte membrane properties in fuel cell applications: An overview. International Journal of Energy Research, 2019, 43, 2756-2794.	2.2	116
23	Titanium dioxide nanotubes (TNT) in energy and environmental applications: An overview. Renewable and Sustainable Energy Reviews, 2017, 76, 212-225.	8.2	113
24	An overview on non-platinum cathode catalysts for direct methanol fuel cell. Applied Energy, 2013, 103, 212-220.	5.1	111
25	Titanium dioxide in fuel cell technology: An overview. Journal of Power Sources, 2015, 278, 109-118.	4.0	106
26	Graphene in electrocatalyst and proton conductiong membrane in fuel cell applications: An overview. Renewable and Sustainable Energy Reviews, 2017, 69, 862-870.	8.2	103
27	Design, fabrication and testing of a PMMA-based passive single-cell and a multi-cell stack micro-DMFC. International Journal of Hydrogen Energy, 2009, 34, 8263-8269.	3.8	98
28	Nafion/Pdâ€“SiO2 nanofiber composite membranes for direct methanol fuel cell applications. International Journal of Hydrogen Energy, 2013, 38, 9474-9483.	3.8	96
29	Progress and challenges: Review for direct liquid fuel cell. International Journal of Energy Research, 2021, 45, 6644-6688.	2.2	96
30	Review on microstructure modelling of a gas diffusion layer for proton exchange membrane fuel cells. Renewable and Sustainable Energy Reviews, 2017, 77, 1001-1009.	8.2	94
31	Overview on Direct Formic Acid Fuel Cells (DFAFCs) as an Energy Sources. APCBEE Procedia, 2012, 3, 33-39.	0.5	91
32	High power direct methanol fuel cell with a porous carbon nanofiber anode layer. Applied Energy, 2014, 113, 946-954.	5.1	88
33	A novel hybrid Nafion-PBI-ZP membrane for direct methanol fuel cells. International Journal of Hydrogen Energy, 2011, 36, 14668-14677.	3.8	76
34	An overview of fuel management in direct methanol fuel cells. Renewable and Sustainable Energy Reviews, 2013, 24, 557-565.	8.2	69
35	Silica-related membranes in fuel cell applications: An overview. International Journal of Hydrogen Energy, 2018, 43, 16068-16084.	3.8	69
36	Mass transfer and performance of membrane-less micro fuel cell: A review. International Journal of Hydrogen Energy, 2014, 39, 1039-1055.	3.8	64

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37	Carbon and graphene quantum dots in fuel cell application: An overview. International Journal of Energy Research, 2021, 45, 1396-1424.	2.2	59
38	Modeling and simulation of a direct ethanol fuel cell: An overview. Journal of Power Sources, 2014, 262, 401-406.	4.0	57
39	Performance of crosslinked sodium alginate/sulfonated graphene oxide as polymer electrolyte membrane in DMFC application: RSM optimization approach. International Journal of Hydrogen Energy, 2018, 43, 22986-23003.	3.8	57
40	Novel Anodic Catalyst Support for Direct Methanol Fuel Cell: Characterizations and Single-Cell Performances. Nanoscale Research Letters, 2018, 13, 90.	3.1	56
41	Enhanced Proton Conductivity and Methanol Permeability Reduction via Sodium Alginate Electrolyte-Sulfonated Graphene Oxide Bio-membrane. Nanoscale Research Letters, 2018, 13, 82.	3.1	56
42	Performance of direct methanol fuel cell with a palladiumâ€“silica nanofibre/Nafion composite membrane. Energy Conversion and Management, 2013, 75, 718-726.	4.4	53
43	The progress of fuel cell for malaysian residential consumption: Energy status and prospects to introduction as a renewable power generation system. Renewable and Sustainable Energy Reviews, 2021, 144, 110984.	8.2	53
44	High power passive Î¼DMFC with low catalyst loading for small power generation. Energy Conversion and Management, 2010, 51, 821-825.	4.4	51
45	Preparation of Na doped SiO2 solid catalysts by the sol-gel method for the production of biodiesel from jatropha oil. Green Chemistry, 2009, 11, 1862.	4.6	48
46	Parametric study on direct ethanol fuel cell (DEFC) performance and fuel crossover. International Journal of Hydrogen Energy, 2019, 44, 8566-8574.	3.8	48
47	New composite membrane poly(vinyl alcohol)/graphene oxide for direct ethanolâ€“proton exchange membrane fuel cell. Journal of Applied Polymer Science, 2019, 136, 46928.	1.3	48
48	Process system engineering in direct methanol fuel cell. International Journal of Hydrogen Energy, 2011, 36, 6219-6236.	3.8	47
49	Enhanced mechanical flexibility and performance of sodium alginate polymer electrolyte bioâ€membrane for application in direct methanol fuel cell. Journal of Applied Polymer Science, 2018, 135, 46666.	1.3	46
50	Improved performance of sulfonated polyimide composite membranes with rice husk ash as a bio-filler for application in direct methanol fuel cells. International Journal of Hydrogen Energy, 2019, 44, 1857-1866.	3.8	45
51	Performance and stability of single and 6-cell stack passive direct methanol fuel cell (DMFC) for long-term operation. International Journal of Hydrogen Energy, 2017, 42, 9230-9242.	3.8	44
52	A review of alkaline solid polymer membrane in the application of <scp>AEM</scp> electrolyzer: Materials and characterization. International Journal of Energy Research, 2021, 45, 18337-18354.	2.2	44
53	Materials, morphologies and structures of MEAs in DMFCs. Renewable and Sustainable Energy Reviews, 2012, 16, 2494-2515.	8.2	42
54	Sodium alginate/alumina composite biomembrane preparation and performance in DMFC application. Polymer Testing, 2020, 81, 106183.	2.3	42

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55	Carbon nanotube, graphene oxide and montmorillonite as conductive fillers in polymer electrolyte membrane for fuel cell: an overview. International Journal of Energy Research, 2021, 45, 1309-1346.	2.2	41
56	Influence of Graphene Oxide on the Ethanol Permeability and Ionic Conductivity of QPVA-Based Membrane in Passive Alkaline Direct Ethanol Fuel Cells. Nanoscale Research Letters, 2019, 14, 28.	3.1	40
57	Investigation of MEA degradation in a passive direct methanol fuel cell under different modes of operation. Applied Energy, 2014, 135, 364-372.	5.1	39
58	A review of quaternized polyvinyl alcohol as an alternative polymeric membrane in DMFCs and DEFCs. International Journal of Energy Research, 2020, 44, 6223-6239.	2.2	39
59	A review of progressive advanced polymer nanohybrid membrane in fuel cell application. International Journal of Energy Research, 2020, 44, 8255-8295.	2.2	39
60	Durability and performance of direct glycerol fuel cell with palladium-aurum/vapor grown carbon nanofiber support. Energy Conversion and Management, 2019, 188, 120-130.	4.4	38
61	Non-linear optimization of passive direct methanol fuel cell (DMFC). International Journal of Hydrogen Energy, 2010, 35, 1759-1768.	3.8	37
62	Synthesis and optimization of PtRu/TiO2-CNF anodic catalyst for direct methanol fuel cell. International Journal of Hydrogen Energy, 2019, 44, 30543-30552.	3.8	35
63	Advanced modification of scandiaâ€stabilized zirconia electrolytes for solid oxide fuel cells applicationâ€”A review. International Journal of Energy Research, 2021, 45, 4871-4887.	2.2	34
64	Microwave-assisted transesterification of jatropha and waste frying palm oil. International Journal of Sustainable Energy, 2009, 28, 195-201.	1.3	30
65	Development of a conceptual design model of a direct ethanol fuel cell (DEFC). International Journal of Hydrogen Energy, 2015, 40, 11943-11948.	3.8	30
66	Enhanced alkaline stability and performance of alkaliâ€doped quaternized poly(vinyl alcohol) membranes for passive direct ethanol fuel cell. International Journal of Energy Research, 2019, 43, 5252-5265.	2.2	30
67	Optimization of a porous carbon nanofiber layer for the membrane electrode assembly in DMFC. Energy Conversion and Management, 2015, 101, 525-531.	4.4	29
68	TiO2 Nanotube-Carbon (TNT-C) as Support for Pt-based Catalyst for High Methanol Oxidation Reaction in Direct Methanol Fuel Cell. Nanoscale Research Letters, 2016, 11, 553.	3.1	28
69	Current status, opportunities, and challenges in fuel cell catalytic application of aerogels. International Journal of Energy Research, 2019, 43, 2447-2467.	2.2	28
70	Biogenic platinum from agricultural wastes extract for improved methanol oxidation reaction in direct methanol fuel cell. Journal of Advanced Research, 2021, 28, 63-75.	4.4	28
71	Applications of graphene nano-sheets as anode diffusion layers in passive direct methanol fuel cells (DMFC). International Journal of Hydrogen Energy, 2017, 42, 9252-9261.	3.8	27
72	Sustainable route of synthesis platinum nanoparticles using orange peel extract. International Journal of Green Energy, 2019, 16, 1518-1526.	2.1	27

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73	Nanostructured Pd-Based Electrocatalyst and Membrane Electrode Assembly Behavior in a Passive Direct Glycerol Fuel Cell. Nanoscale Research Letters, 2019, 14, 52.	3.1	26
74	Evaluation of Quaternized polyvinyl alcohol/graphene oxideâ€based membrane towards improving the performance of airâ€breathing passive direct methanol fuel cell<scp>s</scp>. International Journal of Energy Research, 2020, 44, 8988-9000.	2.2	26
75	Adsorption isotherm mechanism of amino organic compounds as mild steel corrosion inhibitors by electrochemical measurement method. Central South University, 2010, 17, 34-39.	0.5	24
76	Potential of sodium alginate/titanium oxide biomembrane nanocomposite in DMFC application. International Journal of Energy Research, 2019, 43, 8057.	2.2	24
77	Membraneâ€less micro fuel cell system design and performance: An overview. International Journal of Energy Research, 2019, 43, 8956-8972.	2.2	23
78	Potential of <scp>Nafion</scp> /eggshell composite membrane for application in direct methanol fuel cell. International Journal of Energy Research, 2021, 45, 2245-2264.	2.2	23
79	Optimization of hot pressing parameters in membrane electrode assembly fabrication by response surface method. International Journal of Hydrogen Energy, 2013, 38, 9484-9493.	3.8	22
80	The conceptual design of a PEMFC system via simulation. Chemical Engineering Journal, 2004, 103, 99-113.	6.6	21
81	Preliminary Study of Alkaline Direct Ethanol Fuel Cell by using Crosslinked Quaternized Poly (Vinyl) Tj ETQq1 1 0.784314 rgBT /Overlo	0.2	20
82	Fabrication and Characterization of New Composite Tio2 Carbon Nanofiber Anodic Catalyst Support for Direct Methanol Fuel Cell via Electrospinning Method. Nanoscale Research Letters, 2017, 12, 613.	3.1	19
83	The potential of novel carbon nanocages as a carbon support for an enhanced methanol <scp>electroâ€oxidation</scp> reaction in a direct methanol fuel cell. International Journal of Energy Research, 2020, 44, 10071-10086.	2.2	18
84	An Overview of Power Electronics Applications in Fuel Cell Systems: DC and AC Converters. Scientific World Journal, The, 2014, 2014, 1-9.	0.8	17
85	Study on the electronic properties and molecule adsorption of W 18 O 49 Ânanowires as a catalyst support in the cathodes of direct methanol fuel cells. Journal of Power Sources, 2015, 288, 461-472.	4.0	17
86	Effective curves of completing simultaneous ammonium and manganese removal in polluted water using a biological aerated filter. Journal of Industrial and Engineering Chemistry, 2015, 30, 153-159.	2.9	17
87	Performance of quaternized poly(vinyl alcohol)â€based electrolyte membrane in passive alkaline DEFCs application: RSM optimization approach. Journal of Applied Polymer Science, 2019, 136, 47526.	1.3	16
88	Recent biopolymers used for membrane fuel cells: Characterization analysis perspectives. International Journal of Energy Research, 2022, 46, 16178-16207.	2.2	16
89	Hydrogen production by methanolâ€steam reforming using Niï£¿Moï£¿Cu/Î³â€alumina trimetallic catalysts. Asia-Pacific Journal of Chemical Engineering, 2010, 5, 862-868.	0.8	15
90	Mass and heat transport in direct methanol fuel cells. Journal of Power Sources, 2011, 196, 9847-9855.	4.0	15

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91	Novel Anode Catalyst for Direct Methanol Fuel Cells. Scientific World Journal, The, 2014, 2014, 1-8.	0.8	15
92	Novel heat-treated cobalt phthalocyanine/carbon-tungsten oxide nanowires (CoPc/C-W 18 O 49) cathode catalyst for direct methanol fuel cell. Journal of Electroanalytical Chemistry, 2017, 803, 19-29.	1.9	15
93	The optimization performance of crossâ€linked sodium alginate polymer electrolyte bioâ€membranes in passive direct methanol/ethanol fuel cells. International Journal of Energy Research, 2019, 43, 8275.	2.2	14
94	Fuel cells as an advanced alternative energy source for the residential sector applications in Malaysia. International Journal of Energy Research, 2021, 45, 5032-5057.	2.2	14
95	Structural mechanism investigation on methanol crossover and stability of a passive direct methanol fuel cell performance via modified <scp>microâ€porous</scp> layer. International Journal of Energy Research, 2021, 45, 12928-12943.	2.2	13
96	Facile preparation of ultra-low Pt loading graphene-immobilized electrode for methanol oxidation reaction. International Journal of Hydrogen Energy, 2018, 43, 16005-16014.	3.8	12
97	Superior stability and methanol tolerance of a metal-free nitrogen-doped hierarchical porous carbon electrocatalyst derived from textile waste. Journal of Materials Research and Technology, 2021, 11, 1834-1846.	2.6	12
98	Overview on Vapor Feed Direct Methanol Fuel Cell. APCBEE Procedia, 2012, 3, 40-45.	0.5	11
99	Research and innovation in the electrocatalyst development toward glycerol oxidation reaction. International Journal of Energy Research, 2021, 45, 12693-12727.	2.2	11
100	Enhanced performance of methanol oxidation reaction via green synthesis of platinum electroâ€catalyst from sugar cane bagasse. International Journal of Energy Research, 2021, 45, 7380-7403.	2.2	11
101	Radiotracer Technology in Mixing Processes for Industrial Applications. Scientific World Journal, The, 2014, 2014, 1-15.	0.8	10
102	Molecular dynamics simulations of sodium alginate/sulfonated graphene oxide membranes properties. Heliyon, 2018, 4, e00808.	1.4	10
103	Influence of quaternization and polymer blending modification on the mechanical stability, ionic conductivity and fuel barrier of sodium alginate-based membranes for passive DEFCs. Materials Letters, 2020, 279, 128517.	1.3	10
104	Effect of alkali doping on alkaline stability and cell performance of quaternization polyvinyl alcohol/graphene oxide membranes for passive DEFCs. Materials Letters, 2021, 292, 129651.	1.3	10
105	Application of graphene in<scp>lowâ€temperature</scp>fuel cell technology: An overview. International Journal of Energy Research, 2021, 45, 18318-18336.	2.2	10
106	Microporous and mesoporous structure catalysts for the production of 5â€hydroxymethylfurfural (5â€HMF). International Journal of Energy Research, 2022, 46, 577-633.	2.2	10
107	NiPd Supported on Mesostructured Silica Nanoparticle as Efficient Anode Electrocatalyst for Methanol Electrooxidation in Alkaline Media. Catalysts, 2020, 10, 1235.	1.6	9
108	Design and simulation for improved performance via <scp>pumpâ€less</scp> direct ethanol fuel cell for mobile application. International Journal of Energy Research, 2022, 46, 15683-15695.	2.2	9

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109	Biodiesel Progress in Malaysia. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 2012, 34, 2139-2146.	1.2	8
110	Investigating design parameter effects on the methanol flux in the passive storage of a direct methanol fuel cell. International Journal of Hydrogen Energy, 2015, 40, 11931-11942.	3.8	7
111	Study on kinetic energy of a novel metal composite for anode catalyst in direct methanol fuel cell. International Journal of Energy Research, 2015, 39, 181-190.	2.2	7
112	EFFECT OF ORGANIC CARBON LOADING (OCL) ON SIMULTANEOUS NH4+-N AND Mn2+ REMOVAL IN DRINKING WATER USING A BAF SYSTEM. Environmental Engineering and Management Journal, 2011, 10, 1733-1742.	0.2	7
113	Î²â€carrageenan/polyvinyl alcoholâ€graphene oxide biopolymer composite membrane for application of airâ€breathing passive direct ethanol fuel cells. Journal of Applied Polymer Science, 2022, 139, .	1.3	7
114	Critical review on development of magnesium alloy as anode in<scp>Mgâ€Air</scp>fuel cell and additives in electrolyte. International Journal of Energy Research, 2021, 45, 15739-15759.	2.2	6
115	HRT EFFECT ON SIMULTANEOUS COD, AMMONIA AND MANGANESE REMOVAL FROM DRINKING WATERTREATMENT SYSTEM USING A BIOLOGICAL AERATED FILTER (BAF). Environmental Engineering and Management Journal, 2018, 17, 199-207.	0.2	6
116	Removal of ion in drinking water treatment using locally isolated heterotrophic nitrifier. Desalination and Water Treatment, 2012, 50, 294-301.	1.0	5
117	Anode structure with double-catalyst layers for improving the direct ethanol fuel cell performance. International Journal of Hydrogen Energy, 2020, 45, 22302-22314.	3.8	5
118	Introduction to direct alcohol fuel cells (DAFCs). , 2021, , 49-70.		4
119	The mechanism of the water dissociation and dehydrogenation of glycerol on Au (111) and PdAu alloy catalyst surfaces. International Journal of Hydrogen Energy, 2021, 46, 30937-30947.	3.8	4
120	Enhancement on the Quaternized sodium alginate/polyvinyl alcohol membrane performance in the application of passive DEFCs. Materials Letters, 2022, 309, 131388.	1.3	4
121	Inhibition of Mild Steel Corrosion under Hydrodynamic Conditions. , 2010, , .		3
122	Optimization of a Continuous Hybrid Impeller Mixer via Computational Fluid Dynamics. Scientific World Journal, The, 2014, 2014, 1-6.	0.8	2
123	Optimization of Integrated Impeller Mixer via Radiotracer Experiments. Scientific World Journal, The, 2014, 2014, 1-8.	0.8	1
124	Catalytic Activity of Silver Metal Supported on Doped Graphene in Alkaline Medium for Oxygen Reduction Reaction. Advanced Materials Research, 0, 1155, 55-69.	0.3	1
125	Analisis Tenaga Bebas dan Sifat Mangkin PtRuFeNi untuk Sel Fuel Metanol Langsung (DMFC) Tunggal. Sains Malaysiana, 2019, 48, 1221-1231.	0.3	1
126	Direct dimethyl ether fuel cells (DDMEFCs). , 2021, , 177-189.		0