Dario R Dekel

List of Publications by Citations

86 papers	5,502 citations	34 h-index	74 g-index
113 ext. papers	7,041 ext. citations	9.3 avg, IF	6.86 L-index

#	Paper	IF	Citations
86	Anion-exchange membranes in electrochemical energy systems. *Energy and Environmental Science*, **2014**, 7, 3135-3191	35.4	1296
85	Review of cell performance in anion exchange membrane fuel cells. *Journal of Power Sources*, **2018**, 375, 158-169	8.9	575
84	Anion exchange membrane fuel cells: Current status and remaining challenges. *Journal of Power Sources*, **2018**, 375, 170-184	8.9	486
83	Effect of Water on the Stability of Quaternary Ammonium Groups for Anion Exchange Membrane Fuel Cell Applications. *Chemistry of Materials*, **2017**, 29, 4425-4431	9.6	214
82	Electrocatalysts for Hydrogen Oxidation Reaction in Alkaline Electrolytes. *ACS Catalysis*, **2018**, 8, 6665-6690	11	186
81	A Pd/C-CeO2 Anode Catalyst for High-Performance Platinum-Free Anion Exchange Membrane Fuel Cells. *Angewandte Chemie - International Edition*, **2016**, 55, 6004-7	16.4	154
80	Poly(bis-arylimidazoliums) possessing high hydroxide ion exchange capacity and high alkaline stability. *Nature Communications*, **2019**, 10, 2306	17.4	149
79	The critical relation between chemical stability of cations and water in anion exchange membrane fuel cells environment. *Journal of Power Sources*, **2018**, 375, 351-360	8.9	137
78	Highly active nanostructured palladium-ceria electrocatalysts for the hydrogen oxidation reaction in alkaline medium. *Nano Energy*, **2017**, 33, 293-305	17.1	125
77	Palladium/nickel bifunctional electrocatalyst for hydrogen oxidation reaction in alkaline membrane fuel cell. *Journal of Power Sources*, **2016**, 304, 332-339	8.9	115
76	Water □A key parameter in the stability of anion exchange membrane fuel cells. *Current Opinion in Electrochemistry*, **2018**, 9, 173-178	7.2	105
75	The Effect of Ambient Carbon Dioxide on Anion-Exchange Membrane Fuel Cells. *ChemSusChem*, **2018**, 11, 1136-1150	8.3	100
74	Water Uptake Study of Anion Exchange Membranes. *Macromolecules*, **2018**, 51, 3264-3278	5.5	93
73	Steady state and transient simulation of anion exchange membrane fuel cells. *Journal of Power Sources*, **2018**, 375, 191-204	8.9	79
72	A practical method for measuring the true hydroxide conductivity of anion exchange membranes. *Electrochemistry Communications*, **2018**, 88, 109-113	5.1	78
71	Chemical stability of poly(phenylene oxide)-based ionomers in an anion exchange-membrane fuel cell environment. *Journal of Materials Chemistry A*, **2018**, 6, 22234-22239	13	78
70	Beyond 1.0□W cm□Performance without Platinum: The Beginning of a New Era in Anion Exchange Membrane Fuel Cells. *Journal of the Electrochemical Society*, **2018**, 165, J3039-J3044	3.9	70

69	Stability Limits of Ni-Based Hydrogen Oxidation Electrocatalysts for Anion Exchange Membrane Fuel Cells. *ACS Catalysis*, **2019**, 9, 6837-6845	13.1	59
68	Impact of carbonation processes in anion exchange membrane fuel cells. *Electrochimica Acta*, **2018**, 263, 433-446	6.7	58
67	Predicting performance stability of anion exchange membrane fuel cells. *Journal of Power Sources*, **2019**, 420, 118-123	8.9	57
66	Hydrogen Oxidation on Ni-Based Electrocatalysts: The Effect of Metal Doping. *Catalysts*, **2018**, 8, 454	4	55
65	Bicarbonate and chloride anion transport in anion exchange membranes. *Journal of Membrane Science*, **2016**, 514, 125-134	9.6	53
64	Accelerated Stress Test of Pt/C Nanoparticles in an Interface with an Anion-Exchange Membrane: An Identical-Location Transmission Electron Microscopy Study. *ACS Catalysis*, **2018**, 8, 1278-1286	13.1	48
63	Palladium-ceria nanocatalyst for hydrogen oxidation in alkaline media: Optimization of the Pd–CeO2 interface. *Nano Energy*, **2019**, 57, 820-826	17.1	47
62	Characterization and Chemical Stability of Anion Exchange Membranes Cross-Linked with Polar Electron-Donating Linkers. *Journal of the Electrochemical Society*, **2015**, 162, F1047-F1055	3.9	46
61	A Pd/C-CeO2 Anode Catalyst for High-Performance Platinum-Free Anion Exchange Membrane Fuel Cells. *Angewandte Chemie*, **2016**, 128, 6108-6111	3.6	44
60	Hydroxide Ion Diffusion in Anion-Exchange Membranes at Low Hydration: Insights from Ab Initio Molecular Dynamics. *Chemistry of Materials*, **2019**, 31, 5778-5787	9.6	40
59	Unraveling mysteries of hydrogen electrooxidation in anion exchange membrane fuel cells. *Current Opinion in Electrochemistry*, **2018**, 12, 182-188	7.2	40
58	Palladium–Ceria Catalysts with Enhanced Alkaline Hydrogen Oxidation Activity for Anion Exchange Membrane Fuel Cells. *ACS Applied Energy Materials*, **2019**, 2, 4999-5008	6.1	39
57	Measuring the true hydroxide conductivity of anion exchange membranes. *Journal of Membrane Science*, **2020**, 612, 118461	9.6	39
56	Effect of CO2 on the properties of anion exchange membranes for fuel cell applications. *Journal of Membrane Science*, **2019**, 586, 140-150	9.6	38
55	Molecular Simulation of Quaternary Ammonium Solutions at Low Hydration Levels. *Journal of Physical Chemistry C*, **2018**, 122, 11204-11213	3.8	38
54	Surface Adsorption Affects the Performance of Alkaline Anion-Exchange Membrane Fuel Cells. *ACS Catalysis*, **2018**, 8, 9429-9439	13.1	38
53	Self-crosslinked blend alkaline anion exchange membranes with bi-continuous phase separated morphology to enhance ion conductivity. *Journal of Membrane Science*, **2020**, 597, 117769	9.6	36
52	Quantifying the critical effect of water diffusivity in anion exchange membranes for fuel cell applications. *Journal of Membrane Science*, **2020**, 608, 118206	9.6	33

51	Transition-Metal- and Nitrogen-Doped Carbide-Derived Carbon/Carbon Nanotube Composites as Cathode Catalysts for Anion-Exchange Membrane Fuel Cells.. *ACS Catalysis*, **2021**, 11, 1920-1931	13.1	33
50	Practical Technique To Measure the Chemical Stability of Anion-Exchange Membranes under Conditions Simulating the Fuel Cell Environment **2020**, 2, 168-173		29
49	A high-temperature anion-exchange membrane fuel cell. *Journal of Power Sources Advances*, **2020**, 5, 100023	3.3	29
48	Synthesis of CeOx-Decorated Pd/C Catalysts by Controlled Surface Reactions for Hydrogen Oxidation in Anion Exchange Membrane Fuel Cells. *Advanced Functional Materials*, **2020**, 30, 2002087	15.6	29
47	Alkaline Membrane Fuel Cell (AMFC) Materials and System Improvement - State-of-the-Art. *ECS Transactions*, **2013**, 50, 2051-2052	1	28
46	Platinum and Platinum Group Metal-Free Catalysts for Anion Exchange Membrane Fuel Cells. *Energies*, **2020**, 13, 582	3.1	27
45	Porphyrin Aerogel Catalysts for Oxygen Reduction Reaction in Anion-Exchange Membrane Fuel Cells. *Advanced Functional Materials*, **2021**, 31, 2100963	15.6	24
44	Crosslinked quaternary phosphonium-functionalized poly(ether ether ketone) polymer-based anion-exchange membranes. *Journal of Membrane Science*, **2021**, 626, 119167	9.6	24
43	Changes of Anion Exchange Membrane Properties During Chemical Degradation. *ACS Applied Polymer Materials*, **2020**, 2, 360-367	4.3	23
42	Composite Materials with Combined Electronic and Ionic Properties. *Matter*, **2019**, 1, 959-975	12.7	23
41	Improved Hydrogen Oxidation Reaction Activity and Stability of Buried Metal-Oxide Electrocatalyst Interfaces. *Chemistry of Materials*, **2020**, 32, 7716-7724	9.6	22
40	Are Radicals Formed During Anion-Exchange Membrane Fuel Cell Operation?. *Journal of Physical Chemistry Letters*, **2020**, 11, 7630-7636	6.4	21
39	Electroreduction of oxygen on cobalt phthalocyanine-modified carbide-derived carbon/carbon nanotube composite catalysts. *Journal of Solid State Electrochemistry*, **2021**, 25, 57-71	2.6	20
38	Increasing the Alkaline Stability of ,-Diaryl Carbazolium Salts Using Substituent Electronic Effects. *ACS Applied Materials & Interfaces*, **2020**, 12, 49617-49625	9.5	18
37	An Anion-Exchange Membrane Fuel Cell Containing Only Abundant and Affordable Materials. *Energy Technology*, **2021**, 9, 2000909	3.5	18
36	The critical importance of ionomers on the electrochemical activity of platinum and platinum-free catalysts for anion-exchange membrane fuel cells. *Sustainable Energy and Fuels*, **2020**, 4, 3300-3307	5.8	17
35	Carbide-Supported PtRu Catalysts for Hydrogen Oxidation Reaction in Alkaline Electrolyte. *ACS Catalysis*, **2021**, 11, 932-947	13.1	17
34	Bifunctional Oxygen Electrocatalysis on Mixed Metal Phthalocyanine-Modified Carbon Nanotubes Prepared via Pyrolysis. *ACS Applied Materials & Interfaces*, **2021**, 13, 41507-41516	9.5	16

33	Multi-scale study on bifunctional Co/FeNC cathode catalyst layers with high active site density for the oxygen reduction reaction. *Applied Catalysis B: Environmental*, **2021**, 299, 120656	21.8	16
32	Unexpected hydroxide ion structure and properties at low hydration. *Journal of Molecular Liquids*, **2020**, 313, 113485	6	15
31	Electrospun Ionomeric Fibers with Anion Conducting Properties. *Advanced Functional Materials*, **2020**, 30, 1901733	15.6	15
30	Effect of Carbonate Anions on Quaternary Ammonium-Hydroxide Interaction. *Journal of Physical Chemistry C*, **2019**, 123, 15956-15962	3.8	12
29	Effect of Ammonium Cations on the Diffusivity and Structure of Hydroxide Ions in Low Hydration Media. *Journal of Physical Chemistry C*, **2019**, 123, 27355-27362	3.8	12
28	Ceria Entrapped Palladium Novel Composites for Hydrogen Oxidation Reaction in Alkaline Medium. *Journal of the Electrochemical Society*, **2020**, 167, 054514	3.9	11
27	A Simulator for System-Level Analysis of Heat Transfer and Phase Change in Thermal Batteries. *Journal of the Electrochemical Society*, **2009**, 156, A442	3.9	11
26	An Effective Synthesis of N,N-Diphenyl Carbazolium Salts. *Synlett*, **2018**, 29, 1314-1318	2.2	10
25	Water Content and Ionic Conductivity of Thin Films of Different Anionic Forms of Anion Conducting Ionomers. *Journal of Physical Chemistry C*, **2020**, 124, 23469-23478	3.8	10
24	A Model Based Analysis of Alkaline Membrane Fuel Cells. *ECS Transactions*, **2017**, 80, 1051-1057	1	9
23	Atomistic Insights into the Hydrogen Oxidation Reaction of Palladium-Ceria Bifunctional Catalysts for Anion-Exchange Membrane Fuel Cells. *ACS Catalysis*, **2021**, 11, 2561-2571	13.1	9
22	What is next in anion-exchange membrane water electrolyzers? Bottlenecks, benefits, and future.. *ChemSusChem*, **2022**,	8.3	9
21	Magnetic-field-oriented mixed-valence-stabilized ferrocenium anion-exchange membranes for fuel cells. *Nature Energy*,	62.3	8
20	A high-temperature anion-exchange membrane fuel cell with a critical raw material-free cathode. *Chemical Engineering Journal Advances*, **2021**, 8, 100153	3.6	7
19	Electrospun Anion-Conducting Ionomer Fibers-Effect of Humidity on Final Properties. *Polymers*, **2020**, 12,	4.5	6
18	The Reaction Mechanism Between Tetraarylammonium Salts and Hydroxide. *European Journal of Organic Chemistry*, **2020**, 2020, 3161-3168	3.2	5
17	Understanding how single-atom site density drives the performance and durability of PGM-free FeNC cathodes in anion exchange membrane fuel cells. *Materials Today Advances*, **2021**, 12, 100179	7.4	5
16	Effect of the Synthetic Method on the Properties of Ni-Based Hydrogen Oxidation Catalysts. *ACS Applied Energy Materials*, **2021**, 4, 3404-3423	6.1	5

15	Ligand Valency Effects on the Alkaline Stability of Metallopolymer Anion-Exchange Membranes. *Macromolecular Rapid Communications*, **2021**, 42, e2100238	4.8	5
14	Non-Monotonic Temperature Dependence of Hydroxide Ion Diffusion in Anion Exchange Membranes. *Chemistry of Materials*, **2022**, 34, 2133-2145	9.6	4
13	Recent developments in Pd-CeO2 nano-composite electrocatalysts for anodic reactions in anion exchange membrane fuel cells. *Electrochemistry Communications*, **2022**, 135, 107219	5.1	3
12	High-performance radiation grafted anion-exchange membranes for fuel cell applications: Effects of irradiation conditions on ETFE-based membranes properties. *Journal of Membrane Science*, **2022**, 641, 119879	9.6	3
11	Effect of LDH platelets on the transport properties and carbonation of anion exchange membranes. *Electrochimica Acta*, **2022**, 403, 139713	6.7	2
10	Elucidating the role of anion-exchange ionomer conductivity within the cathode catalytic layer of anion-exchange membrane fuel cells. *Journal of Power Sources*, **2022**, 524, 231083	8.9	2
9	Metal nanoparticles entrapped in metal matrices. *Nanoscale Advances*, **2021**, 3, 4597-4612	5.1	1
8	A surprising relation between operating temperature and stability of anion exchange membrane fuel cells. *Journal of Power Sources Advances*, **2021**, 11, 100066	3.3	1
7	Measuring the alkaline stability of anion-exchange membranes. *Journal of Electroanalytical Chemistry*, **2022**, 908, 116112	4.1	0
6	Designing the feasible membrane systems for CO2 removal from Air-fed Anion-Exchange membrane fuel cells. *Separation and Purification Technology*, **2022**, 289, 120713	8.3	0
5	Impact of the Relative Humidity on the Performance Stability of Anion Exchange Membrane Fuel Cells Studied by Ion Chromatography. *ACS Applied Polymer Materials*, **2022**, 4, 3962-3970	4.3	0
4	Characterization of CeOx-decorated Pd/C Catalysts Synthesized By Controlled Surface Reactions for Hydrogen Oxidation in Anion Exchange Membrane Fuel Cells. *ECS Meeting Abstracts*, **2020**, MA2020-02, 2110-2110	0	
3	Why Chemical Stability of Anion-Exchange Membranes Depends on the Hydration of the Aemfcs. *ECS Meeting Abstracts*, **2021**, MA2021-02, 1210-1210	0	
2	Bifunctional Palladium-Ceria Catalysts for Hydrogen Oxidation Reaction. *ECS Meeting Abstracts*, **2021**, MA2021-02, 1878-1878	0	
1	Hydrogen Oxidation on Ni-Based Electrocatalysts: The Role of the Synthetic Method. *ECS Meeting Abstracts*, **2020**, MA2020-01, 1594-1594	0	