Karel Bouzek

List of Publications by Year
in descending order

161 papers	5,657 citations	61984 43 h-index	98798 67 g-index
173 all docs	173 docs citations	173 times ranked	4795 citing authors

#	Article	IF	Citations
1	Green hydrogen from anion exchange membrane water electrolysis: a review of recent developments in critical materials and operating conditions. Sustainable Energy and Fuels, 2020, 4, 2114-2133.	4.9	367
2	Membrane electrolysisâ€"History, current status and perspective. Electrochimica Acta, 2016, 209, 737-756.	5.2	256
3	Progress and prospects in reverse electrodialysis for salinity gradient energy conversion and storage. Applied Energy, 2018, 225, 290-331.	10.1	214
4	Nonylphenol, octylphenol, and bisphenol-A in the aquatic environment: A review on occurrence, fate, and treatment. Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering, 2009, 44, 423-442.	1.7	184
5	Electrochemical reduction of nitrate in weakly alkaline solutions. Journal of Applied Electrochemistry, 2001, 31, 1185-1193.	2.9	162
6	Overview: State-of-the Art Commercial Membranes for Anion Exchange Membrane Water Electrolysis. Journal of Electrochemical Energy Conversion and Storage, 2021, 18, .	2.1	160
7	Electrocatalysts for the hydrogen evolution reaction in alkaline and neutral media. A comparative review. Journal of Power Sources, 2021, 493, 229708.	7.8	151
8	Research progress in the electrochemical synthesis of ferrate(VI). Electrochimica Acta, 2009, 54, 2673-2683.	5.2	129
9	Non-conductive TiO2 as the anode catalyst support for PEM water electrolysis. International Journal of Hydrogen Energy, 2012, 37, 12081-12088.	7.1	110
10	Platinum distribution and electrocatalytic properties of modified polypyrrole films. Electrochimica Acta, 2001, 46, 661-670.	5.2	104
11	Highlights during the development of electrochemical engineering. Chemical Engineering Research and Design, 2013, 91, 1998-2020.	5.6	97
12	New UV irradiation and direct electrolysisÃ¢Â€Â"promising methods for water disinfection. Chemical Engineering Journal, 2002, 85, 111-117.	12.7	96
13	Title is missing!. Journal of Applied Electrochemistry, 1999, 29, 611-617.	2.9	93
14	Electrocatalysts for the oxygen evolution reaction in alkaline and neutral media. A comparative review. Journal of Power Sources, 2021, 507, 230072.	7.8	93
15	The effect of surface modification by reduced graphene oxide on the electrocatalytic activity of nickel towards the hydrogen evolution reaction. Physical Chemistry Chemical Physics, 2015, 17, 26864-26874.	2.8	86
16	Tantalum carbide as a novel support material for anode electrocatalysts in polymer electrolyte membrane water electrolysers. International Journal of Hydrogen Energy, 2012, 37, 2173-2181.	7.1	82
17	Title is missing!. Journal of Applied Electrochemistry, 2001, 31, 501-507.	2.9	78
18	Determination of the ion-exchange capacity of anion-selective membranes. International Journal of Hydrogen Energy, 2014, 39, 5054-5062.	7.1	77

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19	Evolution of physicochemical and electrocatalytic properties of NiCo2O4 (AB2O4) spinel oxide with the effect of Fe substitution at the A site leading to efficient anodic O2 evolution in an alkaline environment. International Journal of Hydrogen Energy, 2014, 39, 5713-5722.	7.1	70
20	Synthesis and characterization of NiFe2O4 electrocatalyst for the hydrogen evolution reaction in alkaline water electrolysis using different polymer binders. Journal of Power Sources, 2015, 285, 217-226.	7.8	69
21	Integrated membrane distillation-reverse electrodialysis system for energy-efficient seawater desalination. Applied Energy, 2019, 253, 113551.	10.1	68
22	Salinity gradient power-reverse electrodialysis and alkaline polymer electrolyte water electrolysis for hydrogen production. Journal of Membrane Science, 2016, 514, 155-164.	8.2	66
23	Electrocatalytic activity of copper alloys for $$hbox{NO}_{3}^{-}$$ reduction in a weakly alkaline solution Part 1: Copperâ€“zinc. Journal of Applied Electrochemistry, 2005, 35, 1203-1211.	2.9	62
24	Current efficiency during anodic dissolution of iron to ferrate(vi) in concentrated alkali hydroxide solutions. Journal of Applied Electrochemistry, 1993, 23, 1317-1322.	2.9	59
25	Cost-efficient improvement of coking wastewater biodegradability by multi-stages flow through peroxi-coagulation under low current load. Water Research, 2019, 154, 336-348.	11.3	59
26	Nafion 117 stability under conditions of PEM water electrolysis at elevated temperature and pressure. International Journal of Hydrogen Energy, 2016, 41, 2177-2188.	7.1	58
27	The cyclic voltammetric study of ferrate(VI) production. Journal of Electroanalytical Chemistry, 1997, 425, 125-137.	3.8	56
28	Anion-selective materials with 1,4-diazabicyclo[2.2.2]octane functional groups for advanced alkaline water electrolysis. Electrochimica Acta, 2017, 248, 547-555.	5.2	56
29	Performance of a PEM water electrolyser using a TaC-supported iridium oxide electrocatalyst. International Journal of Hydrogen Energy, 2014, 39, 3072-3078.	7.1	55
30	Alkali doped poly (2,5-benzimidazole) membrane for alkaline water electrolysis: Characterization and performance. Journal of Power Sources, 2016, 312, 128-136.	7.8	54
31	Evaluation of Diaphragms and Membranes as Separators for Alkaline Water Electrolysis. Journal of the Electrochemical Society, 2021, 168, 014510.	2.9	54
32	Influence of cell construction on the electrochemical reduction of nitrate. Chemical Engineering Journal, 2002, 85, 99-109.	12.7	53
33	Salinity gradient power reverse electrodialysis: Cation exchange membrane design based on polypyrrole-chitosan composites for enhanced monovalent selectivity. Chemical Engineering Journal, 2020, 380, 122461.	12.7	53
34	Influence of anode material on current yield during ferrate(vi) production by anodic iron dissolution Part II: Current efficiency during anodic dissolution of white cast iron to ferrate(vi) in concentrated alkali hydroxide solutions. Journal of Applied Electrochemistry, 1996, 26, 925-931.	2.9	49
35	Influence of electrolyte composition on current yield during ferrate(VI) production by anodic iron dissolution. Electrochemistry Communications, 1999, 1, 370-374.	4.7	49
36	Ion-conductive polymer membranes containing 1-butyl-3-methylimidazolium trifluoromethanesulfonate and 1-ethylimidazolium trifluoromethanesulfonate. Journal of Membrane Science, 2011, 367, 332-339.	8.2	48

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37	Optimization of synthesis of the nickel-cobalt oxide based anode electrocatalyst and of the related membrane-electrode assembly for alkaline water electrolysis. Journal of Power Sources, 2017, 347, 247-258.	7.8	48
38	Enhancing PEM water electrolysis efficiency by reducing the extent of Ti gas diffusion layer passivation. Journal of Applied Electrochemistry, 2018, 48, 713-723.	2.9	47
39	Electrocatalytic activity of copper alloys for NO 3 â˜ reduction in a weakly alkaline solution. Journal of Applied Electrochemistry, 2007, 37, 557-566.	2.9	46
40	Influence of anode material on current yields during ferrate(vi) production by anodic iron dissolution Part I: Current efficiency during anodic dissolution of grey cast iron to ferrate(vi) in concentrated alkali hydroxide solutions. Journal of Applied Electrochemistry, 1996, 26, 919-923.	2.9	45
41	Title is missing!. Journal of Applied Electrochemistry, 1997, 27, 679-684.	2.9	45
42	Experimental characterization of inhomogeneity in current density and temperature distribution along a single-channel PEM water electrolysis cell. Electrochimica Acta, 2018, 260, 582-588.	5.2	45
43	Development and testing of a novel catalyst-coated membrane with platinum-free catalysts for alkaline water electrolysis. International Journal of Hydrogen Energy, 2019, 44, 17493-17504.	7.1	45
44	Gas diffusion electrodes for high temperature PEM-type fuel cells: role of a polymer binder and method of the catalyst layer deposition. Journal of Applied Electrochemistry, 2011, 41, 1013-1019.	2.9	44
45	Hydrogen production from industrial wastewaters: An integrated reverse electrodialysis - Water electrolysis energy system. Journal of Cleaner Production, 2018, 203, 418-426.	9.3	43
46	Review of the experimental study and prediction of Pt-based catalyst degradation during PEM fuel cell operation. Current Opinion in Electrochemistry, 2020, 20, 20-27.	4.8	43
47	Polymer anion-selective membranes for electrolytic splitting of water. Part II: Enhancement of ionic conductivity and performance under conditions of alkaline water electrolysis. Journal of Applied Electrochemistry, 2012, 42, 545-554.	2.9	39
48	Title is missing!. Journal of Applied Electrochemistry, 2003, 33, 675-684.	2.9	38
49	Electrochemical formation of ferrate(VI) in a molten NaOHâ€“KOH system. Electrochemistry Communications, 2006, 8, 1737-1740.	4.7	35
50	Polymer anion selective membranes for electrolytic splitting of water. Part I: stability of ion-exchange groups and impact of the polymer binder. Journal of Applied Electrochemistry, 2011, 41, 1043-1052.	2.9	33
51	Investigation of electrocatalytic activity on a N-doped reduced graphene oxide surface for the oxygen reduction reaction in an alkaline medium. International Journal of Hydrogen Energy, 2018, 43, 12129-12139.	7.1	33
52	Microstructured reactor for electroorganic synthesis. Electrochimica Acta, 2010, 55, 8172-8181.	5.2	31
53	Electrochemical production of ferrate(VI) using sinusoidal alternating current superimposed on direct current: grey and white cast iron electrodesThis paper is dedicated to the memory of Professor Ivo RouÅ¡ar.. Electrochimica Acta, 1998, 44, 547-557.	5.2	30
54	Polymer-supported 1-butyl-3-methylimidazolium trifluoromethanesulfonate and 1-ethylimidazolium trifluoromethanesulfonate as electrolytes for the high temperature PEM-type fuel cell. International Journal of Hydrogen Energy, 2013, 38, 4697-4704.	7.1	30

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55	Effect of the MEA design on the performance of PEMWE single cells with different sizes. Journal of Applied Electrochemistry, 2018, 48, 701-711.	2.9	29
56	Comparison of pure and white cast iron dissolution kinetics in highly alkaline electrolyte. Corrosion Science, 1999, 41, 2113-2128.	6.6	28
57	Preparation and Properties of Composite Polypyrrole/Pt Catalyst Systems. Russian Journal of Electrochemistry, 2004, 40, 317-325.	0.9	28
58	The study of electrochemical preparation of ferrate(VI) using alternating current superimposed on the direct current. Frequency dependence of current yields. Electrochimica Acta, 1993, 38, 1717-1720.	5.2	27
59	Glassy carbon electrode activation â€“ A way towards highly active, reproducible and stable electrode surface. Electrochimica Acta, 2019, 299, 963-970.	5.2	27
60	Spatially two-dimensional mathematical model of the flow hydrodynamics in a channel filled with a net-like spacer. Journal of Membrane Science, 2011, 368, 171-183.	8.2	26
61	Anionic catalyst binders based on trimethylamine-quaternized poly(2,6-dimethyl-1,4-phenylene oxide) for alkaline electrolyzers. Journal of Membrane Science, 2015, 473, 267-273.	8.2	26
62	Title is missing!. Journal of Applied Electrochemistry, 1999, 29, 569-576.	2.9	25
63	The influence of electrolyte composition on electrochemical ferrate(VI) synthesis. Part I: anodic dissolution kinetics of pure iron. Journal of Applied Electrochemistry, 2010, 40, 1019-1028.	2.9	25
64	On the influence of porous transport layers parameters on the performances of polymer electrolyte membrane water electrolysis cells. Electrochimica Acta, 2021, 399, 139436.	5.2	25
65	Influence of anode material composition on the stability of electrochemically-prepared ferrate(VI) solutions. Journal of Chemical Technology and Biotechnology, 1999, 74, 1188-1194.	3.2	24
66	Polymer anion-selective membrane for electrolytic water splitting: The impact of a liquid electrolyte composition on the process parameters and long-term stability. International Journal of Hydrogen Energy, 2014, 39, 4779-4787.	7.1	24
67	Electrochemistry of Phosphorous and Hypophosphorous Acid on a Pt electrode. Electrochimica Acta, 2015, 160, 214-218.	5.2	24
68	A review on poly(amidoamine) dendrimer encapsulated nanoparticles synthesis and usage in energy conversion and storage applications. Coordination Chemistry Reviews, 2021, 444, 214062.	18.8	24
69	Preparation of a Novel Composite Material Based on a NafionÂ® Membrane and Polypyrrole for Potential Application in a PEM Fuel Cell. Journal of Applied Electrochemistry, 2005, 35, 991-997.	2.9	23
70	PBI nanofiber mat-reinforced anion exchange membranes with covalently linked interfaces for use in water electrolysers. Journal of Membrane Science, 2021, 640, 119832.	8.2	23
71	Electrochemical microreactor and gas-evolving reactions. Electrochemistry Communications, 2008, 10, 204-207.	4.7	22
72	H[sup +] and Na[sup +] Ion Transport Properties of Sulfonated Poly(2,6-dimethyl-1,4-phenyleneoxide) Membranes. Journal of the Electrochemical Society, 2003, 150, E329.	2.9	21

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73	The effect of convection in the external diffusion layer on the results of a mathematical model of multiple ion transport across an ion-selective membrane. Journal of Applied Electrochemistry, 2008, 38, 1241-1252.	2.9	21
74	The cyclic voltammetric study of ferrate(VI) formation in a molten Na/K hydroxide mixture. Electrochimica Acta, 2008, 54, 203-208.	5.2	21
75	A Combination of Ion Exchange and Electrochemical Reduction for Nitrate Removal from Drinking Water Part I: Nitrate Removal Using a Selective Anion Exchanger in the Bicarbonate Form with Reuse of the Regenerant Solution. Water Environment Research, 2004, 76, 2686-2690.	2.7	19
76	The influence of electrolyte composition on electrochemical ferrate(VI) synthesis. Part III: anodic dissolution kinetics of a white cast iron anode rich in iron carbide. Journal of Applied Electrochemistry, 2012, 42, 615-626.	2.9	19
77	Heterogeneous anion-selective membranes: Influence of a water-soluble component in the membrane on the morphology and ionic conductivity. Journal of Membrane Science, 2012, 401-402, 83-88.	8.2	19
78	Novel approach to mathematical modeling of the complex electrochemical systems with multiple phase interfaces. Electrochimica Acta, 2015, 179, 538-555.	5.2	19
79	Hybrid inorganicâ€“organic proton conducting membranes for fuel cells and gas sensors. Journal of Physics and Chemistry of Solids, 2007, 68, 775-779.	4.0	18
80	The influence of electrolyte composition on electrochemical ferrate(VI) synthesis. Part II: anodic dissolution kinetics of a steel anode rich in silicon. Journal of Applied Electrochemistry, 2011, 41, 1125-1133.	2.9	18
81	Anodic microporous layer for polymer electrolyte membrane water electrolysers. Journal of Applied Electrochemistry, 2017, 47, 1137-1146.	2.9	18
82	Degradation kinetics of Pt during high-temperature PEM fuel cell operation part II: Dissolution kinetics of Pt incorporated in a catalyst layer of a gas-diffusion electrode. Electrochimica Acta, 2020, 333, 135509.	5.2	18
83	Influence of Electrolyte Hydrodynamics on Current Yield in Ferrate(VI) Production by Anodic Iron Dissolution. Collection of Czechoslovak Chemical Communications, 2000, 65, 133-140.	1.0	17
84	A Combination of Ion Exchange and Electrochemical Reduction for Nitrate Removal from Drinking Water Part II: Electrochemical Treatment of a Spent Regenerant Solution. Water Environment Research, 2004, 76, 2691-2698.	2.7	17
85	Heterogeneous ion-selective membranes: the influence of the inert matrix polymer on the membrane properties. Journal of Applied Electrochemistry, 2010, 40, 1005-1018.	2.9	17
86	Macrohomogeneous approach to a two-dimensional mathematical model of an industrial-scale electrodialysis unit. Journal of Applied Electrochemistry, 2012, 42, 645-666.	2.9	17
87	Degradation kinetics of Pt during high-temperature PEM fuel cell operation Part III: Voltage-dependent Pt degradation rate in single-cell experiments. Electrochimica Acta, 2020, 363, 137165.	5.2	17
88	Application of a Three-Dimensional Electrode to the Electrochemical Removal of Copper and Zinc Ions from Diluted Solutions. Water Environment Research, 2000, 72, 618-625.	2.7	16
89	Electrochemical treatment of cooling lubricants. Chemical Engineering and Processing: Process Intensification, 2003, 42, 105-119.	3.6	16
90	Potential and current density distributions along a bipolar electrode. Journal of Applied Electrochemistry, 2007, 37, 1303-1312.	2.9	16

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91	Comparison of Ferrate(VI) Synthesis in Eutectic NaOHâ€“KOH Melts and in Aqueous Solutions. Journal of the Electrochemical Society, 2008, 155, E113.	2.9	16
92	Cationâ€exchange membranes: Comparison of homopolymer, block copolymer, and heterogeneous membranes. Journal of Applied Polymer Science, 2012, 124, E66.	2.6	16
93	H3PO3 electrochemical behaviour on a bulk Pt electrode: adsorption and oxidation kinetics. Electrochimica Acta, 2016, 212, 465-472.	5.2	16
94	The hydrogen context and vulnerabilities in the central and Eastern European countries. International Journal of Hydrogen Energy, 2019, 44, 19036-19054.	7.1	16
95	A Simple Potentiometric Titration Method to Determine Concentration of Ferrate(VI) in Strong Alkaline Solutions. Analytical Letters, 2011, 44, 1333-1340.	1.8	15
96	Investigation of Î²-SiC as an anode catalyst support for PEM water electrolysis. Journal of Solid State Electrochemistry, 2014, 18, 2325-2332.	2.5	15
97	Changes in NafionÂ® 117 internal structure and related properties during exposure to elevated temperature and pressure in an aqueous environment. Electrochimica Acta, 2018, 262, 264-275.	5.2	15
98	Design of a Zeroâ€Gap Laboratoryâ€Scale Polymer Electrolyte Membrane Alkaline Water Electrolysis Stack. Chemie-Ingenieur-Technik, 2019, 91, 821-832.	0.8	15
99	Solubility of Potassium Ferrate in 12 M Alkaline Solutions Between 20Â°C and 60Â°C. Journal of Chemical Technology and Biotechnology, 1996, 66, 35-40.	3.2	14
100	Modification and Characterization of a Novel Composite Material Based on a Nafion Membrane and Polypyrrole. Journal of the Electrochemical Society, 2005, 152, A2080.	2.9	14
101	Influence of counter-ions on the permeability of polypyrrole films to hydrogen. Journal of Applied Electrochemistry, 2006, 36, 703-710.	2.9	14
102	Poissonâ€“Nernstâ€“Planck model of multiple ion transport across an ion-selective membrane under conditions close to chlor-alkali electrolysis. Journal of Applied Electrochemistry, 2016, 46, 679-694.	2.9	14
103	Investigation of processes occurring at cathodically protected underground installations: Experimental study of pH alteration and mathematical modeling of oxygen transport in soil. Corrosion Science, 2017, 120, 14-27.	6.6	14
104	Three-dimensional macrohomogeneous mathematical model of an industrial-scale high-temperature PEM fuel cell stack. Electrochimica Acta, 2018, 273, 432-446.	5.2	14
105	Degradation kinetics of Pt during high-temperature PEM fuel cell operation part I: Kinetics of Pt surface oxidation and dissolution in concentrated H3PO4 electrolyte at elevated temperatures. Electrochimica Acta, 2019, 313, 352-366.	5.2	14
106	Current Distribution at the Electrodes in Zinc Electrowinning Cells. Journal of the Electrochemical Society, 1995, 142, 64-69.	2.9	13
107	Title is missing!. Journal of Applied Electrochemistry, 2000, 30, 1033-1041.	2.9	13
108	The Role of the Electrode and Electrolyte Composition in the Anode Dissolution Kinetics. ACS Symposium Series, 2008, , 52-67.	0.5	13

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109	Solubility of Ferrate(VI) in NaOHâˆ'KOH Mixtures at Different Temperatures. Journal of Chemical & Engineering Data, 2010, 55, 5594-5597.	1.9	13
110	Electrochemical Microreactor Design for Alkoxylation Reactionsâ€"Experiments and Simulations. Industrial & Engineering Chemistry Research, 2012, 51, 1515-1524.	3.7	13
111	Recent advances in hydrogen technologies in the Czech Republic. International Journal of Hydrogen Energy, 2019, 44, 19055-19060.	7.1	13
112	Mass transfer to wall electrodes in a fluidised bed of inert particles. Electrochimica Acta, 1996, 41, 583-589.	5.2	12
113	Utilization of NafionÂ®/conducting polymer composite in the PEM type fuel cells. Journal of Applied Electrochemistry, 2006, 37, 137-145.	2.9	12
114	Spatially two-dimensional mathematical model of the flow hydrodynamics in a spacer-filled channel â€" The effect of inertial forces. Journal of Membrane Science, 2015, 492, 588-599.	8.2	12
115	Two-phase mass transfer in porous transport layers of the electrolysis cell based on a polymer electrolyte membrane: Analysis of the limitations. Electrochimica Acta, 2021, 387, 138541.	5.2	12
116	Optimization of the membrane electrode assembly for an alkaline water electrolyser based on the catalyst-coated membrane. Journal of Power Sources, 2022, 539, 231476.	7.8	12
117	Investigation of processes occurring at cathodically protected underground installations: Mathematical modeling of reaction transport processes in soil. Corrosion Science, 2017, 120, 28-41.	6.6	11
118	Thermodynamic analysis of high temperature steam and carbon dioxide systems in solid oxide cells. Sustainable Energy and Fuels, 2019, 3, 2076-2086.	4.9	11
119	Heterogeneous ion-exchange polyethylene-based membranes with sulfonated poly(1,4-phenylene) Tj ETQq1 1 0.784314 rgBT /Overlo	8.2	10
120	Ultralow Degradation Rates in HT-PEM Fuel Cells. ECS Transactions, 2016, 75, 301-315.	0.5	10
121	Anisotropic properties of gas transport in non-woven gas diffusion layers of polymer electrolyte fuel cells. Journal of Power Sources, 2020, 452, 227828.	7.8	10
122	Quantification of Electrocatalytic Activity of Glassy Carbon Electrode. Electrochimica Acta, 2021, 379, 138177.	5.2	10
123	In situ MÃ¶ssbauer Study of the Passive Layer Formed on the Iron Anode in Alkaline Electrolyte. Collection of Czechoslovak Chemical Communications, 1999, 64, 2044-2060.	1.0	9
124	Study of mass transfer in a vertically moving particle bed electrode. Journal of Applied Electrochemistry, 2003, 33, 205-215.	2.9	9
125	Electrocatalytic properties of polypyrrole films prepared with platinate(II) counter-ions. Synthetic Metals, 2005, 155, 501-508.	3.9	9
126	Behavior of Nafion membrane at elevated temperature and pressure. Desalination and Water Treatment, 2010, 14, 106-111.	1.0	9

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127	Polysulfoneâ€based anion exchange polymers for catalyst binders in alkaline electrolyzers. Journal of Applied Polymer Science, 2015, 132, .	2.6	9
128	Nanocrystalline Fe60Co20Si10B10 as a cathode catalyst for alkaline water electrolysis: Impact of surface activation. Electrochimica Acta, 2019, 306, 688-697.	5.2	9
129	Electrochemical Ferrate(VI) Synthesis: A Molten Salt Approach. ACS Symposium Series, 2008, , 68-80.	0.5	7
130	A rotating rod electrode disk as an alternative to the rotating disk electrode for medium-temperature electrolytes, Part I: The effect of the absence of cylindrical insulation. Electrochimica Acta, 2017, 245, 634-642.	5.2	7
131	Electrode degradation mechanisms in capacitive deionisation. Desalination, 2021, 497, 114622.	8.2	7
132	Heat losses in GrÃtzel solar cells. Solar Energy Materials and Solar Cells, 1999, 57, 359-371.	6.2	6
133	The Role of the Supporting Electrolyte in the Electrochemical Methoxylation of 4-Methylanisole. Journal of the Electrochemical Society, 2009, 156, E179.	2.9	6
134	Preparation of gas diffusion electrodes for high temperature PEM-type fuel cells. Desalination and Water Treatment, 2010, 14, 101-105.	1.0	6
135	High-temperature PEM fuel cell electrode catalyst layers part 1: Microstructure reconstructed using FIB-SEM tomography and its calculated effective transport properties. Electrochimica Acta, 2022, 413, 140133.	5.2	6
136	Mathematical simulation of a vertically moving particle bed electrochemical cell. Journal of Applied Electrochemistry, 2003, 33, 839-851.	2.9	5
137	Ionic Liquids as Potential Supporting Electrolytes for the Anodic Oxidation of 4-methylanisole. Journal of the Electrochemical Society, 2013, 160, G117-G123.	2.9	5
138	Anion exchange membranes and binders based on polystyrene-block-poly(ethylene-ran-butylene)-block-polystyrene copolymer for alkaline water electrolysis. , 0, 142, 90-97.		5
139	Current trends in the description of lanthanum-strontium-manganite oxygen electrode reaction mechanism in a high-temperature solid oxide cell. Current Opinion in Electrochemistry, 2021, , 100852.	4.8	5
140	High-temperature PEM fuel cell electrode catalyst layers Part 2: Experimental validation of its effective transport properties. Electrochimica Acta, 2022, 413, 140121.	5.2	5
141	Evaluation of parameters for anodic polarisation curve from the experimentally measured Uâ€“I dependence for an electrochemical photovoltaic regenerative solar cell. Solar Energy Materials and Solar Cells, 1998, 51, 155-169.	6.2	4
142	Impact of Preparation Method and Y2O3 Content on the Properties of the YSZ Electrolyte. Energies, 2022, 15, 2565.	3.1	4
143	Comparison of the Effectiveness Factors for a Reaction at a Pore Wall Calculated on the Assumption of the Langmuir-Hinshelwood Mechanism and According to a Power Equation. Journal of Chemical Technology and Biotechnology, 1996, 66, 131-134.	3.2	3
144	Homogeneous vs. heterogeneous membranes for the application in PEM type fuel cells. Desalination, 2006, 200, 650-652.	8.2	3

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145	A rotating rod electrode disk as an alternative to the rotating disk electrode for medium-temperature electrolytes, Part II: An example of the application in an investigation of the oxygen reduction reaction on a Pt/C catalyst by the thin film method in hot concentrated H3PO4. Electrochimica Acta, 2017, 245, 597-606.	5.2	3
146	Hydrogen production by electrolysis. , 2020, , 91-117.		3
147	Anodic Oxidation of Iodobenzene and Iodobenzoic Acids in Acetic Acid Environment â€“ Electrochemical Investigation and Density Functional Theory Study. ChemElectroChem, 2021, 8, 3755-3761.	3.4	3
148	Effect of phosphoric acid purity on the electrochemically active surface area of Pt-based electrodes. Journal of Electroanalytical Chemistry, 2022, 918, 116450.	3.8	3
149	Influence of hydrogen contamination by mercury on the lifetime of the PEM-type fuel cell. Electrochimica Acta, 2010, 56, 889-895.	5.2	2
150	Stability of Ferrate(VI) in 14 M NaOH-KOH Mixtures at Different Temperatures. ACS Symposium Series, 2016, , 241-253.	0.5	2
151	Chapter 3. Proton Exchange Membrane Water Electrolysers: Materials, Construction and Performance. RSC Energy and Environment Series, 2019, , 59-93.	0.5	2
152	Mathematical Modeling of Electromembrane Processes. , 2019, , 285-326.		1
153	Generalized Poisson-Nernst-Planck-Based Physical Model of the O₂â^£LSMâ^£YSZ Electrode. Journal of the Electrochemical Society, 2022, 169, 044505.	2.9	1
154	Alkaline water electrolyzis with perfluorinated cation-selective membrane. Desalination and Water Treatment, 0, , 1-4.	1.0	0
155	Ion exchange membranes based on vinylphosphonic acid-co-acrylonitrile copolymers for fuel cells. Desalination and Water Treatment, 0, , 1-7.	1.0	0
156	Air Purification and Filter Design for Mobile APU Based on PEM Fuel Cell. ECS Transactions, 2018, 87, 189-196.	0.5	0
157	Preface on the special issue 2nd workshop on electrochemical engineering: new bridges for a new knowledge on electrochemical engineering. Journal of Applied Electrochemistry, 2018, 48, 1305-1306.	2.9	0
158	Impact of Morphological and Structural Changes on Performance of Solid Oxide Cells. ECS Transactions, 2019, 95, 255-263.	0.5	0
159	Electroosmosis. , 2016, , 649-650.		0
160	(Invited) Current Density Distribution In a Pilot-Scale Electrodialysis Unit - 3D Mathematical Modeling and Experimental Investigation. ECS Meeting Abstracts, 2021, MA2021-02, 764-764.	0.0	0
161	Methodology of the PEM FC Gas Diffusion Layer Permeability Determination and Its Description Related to the Fuel Cell Flow Field Design. ECS Meeting Abstracts, 2022, MA2022-01, 2402-2402.	0.0	0