Jens Oluf Jensen

List of Publications by Year
in descending order

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132 papers	11,111 citations	47409 49 h-index	33145 104 g-index
139 all docs	139 docs citations	139 times ranked	9693 citing authors

#	Article	IF	Citations
1	Random Occupation of Multimetal Sites in Transition Metalâ€Organic Frameworks for Boosting the Oxygen Evolution Reaction. Chemistry - A European Journal, 2022, , .	1.7	7
2	Selfâ€Standing Nanofiber Electrodes with Ptâ€“Co Derived from Electrospun Zeolitic Imidazolate Framework for High Temperature PEM Fuel Cells. Advanced Functional Materials, 2021, 31, 2006771.	7.8	27
3	Mechanistic Insights into the Synthesis of Platinumâ€“Rare Earth Metal Nanoalloys by a Solid-State Chemical Route. Chemistry of Materials, 2021, 33, 535-546.	3.2	22
4	Evaluation of Diaphragms and Membranes as Separators for Alkaline Water Electrolysis. Journal of the Electrochemical Society, 2021, 168, 014510.	1.3	54
5	Nanofiber Electrodes: Selfâ€Standing Nanofiber Electrodes with Ptâ€“Co Derived from Electrospun Zeolitic Imidazolate Framework for High Temperature PEM Fuel Cells (Adv. Funct. Mater. 7/2021). Advanced Functional Materials, 2021, 31, 2170047.	7.8	0
6	Revealing the genuine stability of the reference Pt/C electrocatalyst toward the ORR. Electrochimica Acta, 2021, 391, 138963.	2.6	9
7	Synthesis of Ptâ€“Rare Earth Metal Nanoalloys. Journal of the American Chemical Society, 2020, 142, 953-961.	6.6	74
8	Three-layered electrolyte membranes with acidÂreservoir for prolonged lifetime of high-temperature polymer electrolyte membrane fuel cells. International Journal of Hydrogen Energy, 2020, 45, 1008-1017.	3.8	17
9	Polysulfone-polyvinylpyrrolidone blend membranes as electrolytes in alkaline water electrolysis. Journal of Membrane Science, 2020, 598, 117674.	4.1	44
10	Polybenzimidazole-Based High-Temperature Polymer Electrolyte Membrane Fuel Cells: New Insights and Recent Progress. Electrochemical Energy Reviews, 2020, 3, 793-845.	13.1	92
11	Phosphoric Acid Dynamics in High Temperature Polymer Electrolyte Membranes. Journal of the Electrochemical Society, 2020, 167, 134507.	1.3	13
12	Non-Pt Nanofibrous Catalysts for an ORR PEM Fuel Cell Cathode. ECS Meeting Abstracts, 2020, MA2020-01, 1659-1659.	0.0	0
13	(Invited) Advanced Alkaline Electrolysis Cells for the Production of Sustainable Fuels and Chemicals. ECS Meeting Abstracts, 2020, MA2020-01, 1482-1482.	0.0	0
14	High-Temperature Polymer Electrolyte Membrane Fuel Cells. Nanostructure Science and Technology, 2019, , 45-79.	0.1	3
15	Corrosion Behavior and Conductivity of TiNb and TiNbN Coated Steel for Metallic Bipolar Plates. Applied Sciences (Switzerland), 2019, 9, 2568.	1.3	18
16	Ion-solvating membranes as a new approach towards high rate alkaline electrolyzers. Energy and Environmental Science, 2019, 12, 3313-3318.	15.6	150
17	Feasibility of ultra-low Pt loading electrodes for high temperature proton exchange membrane fuel cells based in phosphoric acid-doped membrane. International Journal of Hydrogen Energy, 2019, 44, 28273-28282.	3.8	29
18	Durability and degradation of vapor-fed direct dimethyl ether high temperature polymer electrolyte membrane fuel cells. Journal of Power Sources, 2019, 432, 30-37.	4.0	7

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19	Influence of oxygen on the cathode in HT-PEM fuel cells. International Journal of Hydrogen Energy, 2019, 44, 20379-20388.	3.8	6
20	Synthesis of Pt-Rare Earth Metal Alloy Nanocatalysts. ECS Meeting Abstracts, 2019, , .	0.0	0
21	Preparation of Various Platinum Rare Earth Metal Alloy Nanoparticles and Their ORR Performance. ECS Meeting Abstracts, 2019, , .	0.0	0
22	Acid Distribution and Durability ofÂHTâ€PEM Fuel Cells with Different Electrode Supports. Fuel Cells, 2018, 18, 103-112.	1.5	32
23	Long-Term Durability of PBI-Based HT-PEM Fuel Cells: Effect of Operating Parameters. Journal of the Electrochemical Society, 2018, 165, F3053-F3062.	1.3	56
24	Immunity of the Fe-N-C catalysts to electrolyte adsorption: Phosphate but not perchloric anions. Applied Catalysis B: Environmental, 2018, 234, 357-364.	10.8	49
25	Catalyst Degradation Under Potential Cycling as an Accelerated Stress Test for PBI-Based High-Temperature PEM Fuel Cellsâ€"Effect of Humidification. Electrocatalysis, 2018, 9, 302-313.	1.5	20
26	57Fe-MÃ¶ssbauer spectroscopy and electrochemical activities of graphitic layer encapsulated iron electrocatalysts for the oxygen reduction reaction. Applied Catalysis B: Environmental, 2018, 221, 406-412.	10.8	61
27	Catalyst evaluation for oxygen reduction reaction in concentrated phosphoric acid at elevated temperatures. Journal of Power Sources, 2018, 375, 77-81.	4.0	31
28	Electrochemical probing into the active sites of graphitic-layer encapsulated iron oxygen reduction reaction electrocatalysts. Science Bulletin, 2018, 63, 24-30.	4.3	18
29	Determination of Anion Transference Number and Phosphoric Acid Diffusion Coefficient in High Temperature Polymer Electrolyte Membranes. Journal of the Electrochemical Society, 2018, 165, F863-F869.	1.3	29
30	Alkaline Electrolysis with an Ion-Solvating Membrane. ECS Meeting Abstracts, 2018, , .	0.0	0
31	Durability and Degradation of Direct Dimethyl Ether High Temperature Polymer Electrolyte Membrane Fuel Cells. ECS Meeting Abstracts, 2018, , .	0.0	0
32	(Invited) How Can We Maintain the Excellent Performance of the PEM Electrolyzer without the Use of Platinum Group Metals?. ECS Meeting Abstracts, 2018, , .	0.0	0
33	Preparation of Pt3y Nanoparticles Supported on Carbon. ECS Meeting Abstracts, 2018, , .	0.0	0
34	Towards a stable ion-solvating polymer electrolyte for advanced alkaline water electrolysis. Journal of Materials Chemistry A, 2017, 5, 5055-5066.	5.2	63
35	Influence of carbon monoxide on the cathode in high-temperature polymer electrolyte membrane fuel cells. International Journal of Hydrogen Energy, 2017, 42, 3309-3315.	3.8	12
36	Long-term durability of HT-PEM fuel cells based on thermally cross-linked polybenzimidazole. Journal of Power Sources, 2017, 342, 570-578.	4.0	83

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37	Coarsening of carbon black supported Pt nanoparticles in hydrogen. Nanotechnology, 2017, 28, 475710.	1.3	8
38	Molecular dynamics simulation of radiation grafted FEP films as proton exchange membranes: Effects of the side chain length. International Journal of Hydrogen Energy, 2017, 42, 29977-29987.	3.8	14
39	Probing phosphoric acid redistribution and anion migration in polybenzimidazole membranes. Electrochemistry Communications, 2017, 82, 21-24.	2.3	33
40	Encapsulated iron-based oxygen reduction electrocatalysts by high pressure pyrolysis. International Journal of Hydrogen Energy, 2017, 42, 22887-22896.	3.8	8
41	Gel Electrolytes of Covalent Network Polybenzimidazole and Phosphoric Acid by Direct Casting. Macromolecular Materials and Engineering, 2017, 302, 1700347.	1.7	10
42	In Situ TEM Study of the Coarsening of Carbon Black Supported Pt Nanoparticles in Hydrogen. ECS Meeting Abstracts, 2017, , .	0.0	0
43	Performance Improvements in High-Temperature PEM Fuel Cells. ECS Meeting Abstracts, 2017, , .	0.0	0
44	Aminoâ€Functional Polybenzimidazole Blends with Enhanced Phosphoric Acid Mediated Proton Conductivity as Fuel Cell Electrolytes. Macromolecular Chemistry and Physics, 2016, 217, 1161-1168.	1.1	14
45	Graphene layer encapsulated metal nanoparticles as a new type of nonâ€precious metal catalysts for oxygen reduction. Asia-Pacific Journal of Chemical Engineering, 2016, 11, 382-385.	0.8	11
46	Zero-Gap Alkaline Water Electrolysis Using Ion-Solvating Polymer Electrolyte Membranes at Reduced KOH Concentrations. Journal of the Electrochemical Society, 2016, 163, F3125-F3131.	1.3	97
47	Platinum Iron Intermetallic Nanoparticles Supported on Carbon Formed Inâ€…Situ by Highâ€Pressure Pyrolysis for Efficient Oxygen Reduction. ChemCatChem, 2016, 8, 3131-3136.	1.8	4
48	Corrosion behavior of construction materials for ionic liquid hydrogen compressor. International Journal of Hydrogen Energy, 2016, 41, 16688-16695.	3.8	31
49	Understanding ternary poly(potassium benzimidazolide)-based polymer electrolytes. Polymer, 2016, 84, 304-310.	1.8	39
50	Exceptional durability enhancement of PA/PBI based polymer electrolyte membrane fuel cells for high temperature operation at 200 Â°C. Journal of Materials Chemistry A, 2016, 4, 4019-4024.	5.2	93
51	Durability Issues and Status of PBI-Based Fuel Cells. , 2016, , 487-509.		14
52	Acidâ€“Base Chemistry and Proton Conductivity. , 2016, , 37-57.		4
53	Polybenzimidazole Membranes by Post Acid Doping. , 2016, , 195-215.		6
54	Optimization of Catalyst Layer Properties for High Temperature Polymer Fuel Cells. ECS Meeting Abstracts, 2016, , .	0.0	0

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55	Hydrogen Sulfide Tolerance in High Temperature Pemfcs. ECS Meeting Abstracts, 2016, , .	0.0	1
56	Probing the Active Site Structures of Iron-Based ORR Catalysts. ECS Meeting Abstracts, 2016, , .	0.0	0
57	Systematic Study of Durability of High Temperature PEM Fuel Cells at Selected Temperatures, Flow Rates and Loads. ECS Meeting Abstracts, 2016, , .	0.0	0
58	Lowering the platinum loading of high temperature polymer electrolyte membrane fuel cells with acid doped polybenzimidazole membranes. Journal of Power Sources, 2015, 293, 51-56.	4.0	32
59	Methyl phosphate formation as a major degradation mode of direct methanol fuel cells with phosphoric acid based electrolytes. Journal of Power Sources, 2015, 279, 517-521.	4.0	18
60	Transition metal carbides (WC, Mo2C, TaC, NbC) as potential electrocatalysts for the hydrogen evolution reaction (HER) at medium temperatures. International Journal of Hydrogen Energy, 2015, 40, 2905-2911.	3.8	177
61	Tetrazole substituted polymers for high temperature polymer electrolyte fuel cells. Journal of Materials Chemistry A, 2015, 3, 14389-14400.	5.2	28
62	Porous poly(perfluorosulfonic acid) membranes for alkaline water electrolysis. Journal of Membrane Science, 2015, 493, 589-598.	4.1	48
63	CsH₂PO₄/NdPO₄Composites as Proton Conducting Electrolytes for Intermediate Temperature Fuel Cells. Journal of the Electrochemical Society, 2015, 162, F436-F441.	1.3	25
64	Ptâ€”Si Bifunctional Surfaces for CO and Methanol Electro-Oxidation. Journal of Physical Chemistry C, 2015, 119, 8023-8031.	1.5	21
65	The stability of poly(2,2â€²-(m-phenylene)-5,5â€²-bibenzimidazole) membranes in aqueous potassium hydroxide. Journal of Membrane Science, 2015, 492, 422-429.	4.1	40
66	Fe₃C-based oxygen reduction catalysts: synthesis, hollow spherical structures and applications in fuel cells. Journal of Materials Chemistry A, 2015, 3, 1752-1760.	5.2	116
67	(Invited) A Stability Study of Alkali Doped PBI Membranes for Alkaline Electrolyzer Cells. ECS Transactions, 2014, 64, 1175-1184.	0.3	21
68	Polymers for Fuel Cells. , 2014, , 1-13.		1
69	The Electrochemical Behavior of Phosphoricâ€Acidâ€Doped Poly(perfluorosulfonic Acid) Membranes. ChemElectroChem, 2014, 1, 1471-1475.	1.7	15
70	Phosphateâ€Doped Carbon Black as Pt Catalyst Support: Coâ€catalytic Functionality for Dimethyl Ether and Methanol Electroâ€oxidation. ChemElectroChem, 2014, 1, 448-454.	1.7	18
71	Highly active and stable Pt electrocatalysts promoted by antimony-doped SnO2 supports for oxygen reduction reactions. Applied Catalysis B: Environmental, 2014, 144, 112-120.	10.8	85
72	meta-PBI/methylated PBI-OO blend membranes for acid doped HT PEMFC. European Polymer Journal, 2014, 58, 135-143.	2.6	30

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73	High Molecular Weight Polybenzimidazole Membranes for High Temperature PEMFC. Fuel Cells, 2014, 14, 7-15.	1.5	135
74	Binderless electrodes for high-temperature polymer electrolyte membrane fuel cells. Journal of Power Sources, 2014, 272, 559-566.	4.0	36
75	Bed geometries, fueling strategies and optimization of heat exchanger designs in metal hydride storage systems for automotive applications: A review. International Journal of Hydrogen Energy, 2014, 39, 17054-17074.	3.8	55
76	Oxygen evolution catalysts on supports with a 3-D ordered array structure and intrinsic proton conductivity for proton exchange membrane steam electrolysis. Energy and Environmental Science, 2014, 7, 820.	15.6	79
77	Direct Synthesis of Fe₃Câ€Functionalized Graphene by High Temperature Autoclave Pyrolysis for Oxygen Reduction. ChemSusChem, 2014, 7, 2099-2103.	3.6	43
78	Hollow Spheres of Iron Carbide Nanoparticles Encased in Graphitic Layers as Oxygen Reduction Catalysts. Angewandte Chemie - International Edition, 2014, 53, 3675-3679.	7.2	783
79	Hydrogen evolution activity and electrochemical stability of selected transition metal carbides in concentrated phosphoric acid. Electrochimica Acta, 2014, 137, 639-646.	2.6	26
80	Complex hydrides for hydrogen storage â€“ new perspectives. Materials Today, 2014, 17, 122-128.	8.3	408
81	Polybenzimidazole and sulfonated polyhedral oligosilsesquioxane composite membranes for high temperature polymer electrolyte membrane fuel cells. Electrochimica Acta, 2014, 140, 182-190.	2.6	53
82	Boronâ€“nitrogen based hydrides and reactive composites for hydrogen storage. Materials Today, 2014, 17, 129-135.	8.3	165
83	InnenrÃ¼cktitelbild: Hollow Spheres of Iron Carbide Nanoparticles Encased in Graphitic Layers as Oxygen Reduction Catalysts (Angew. Chem. 14/2014). Angewandte Chemie, 2014, 126, 3823-3823.	1.6	2
84	Antimony doped tin oxide modified carbon nanotubes as catalyst supports for methanol oxidation and oxygen reduction reactions. Journal of Materials Chemistry A, 2013, 1, 9737.	5.2	38
85	Benzimidazole grafted polybenzimidazoles for proton exchange membrane fuel cells. Polymer Chemistry, 2013, 4, 4768.	1.9	104
86	Heterogeneous anion conducting membranes based on linear and crosslinked KOH doped polybenzimidazole for alkaline water electrolysis. Journal of Membrane Science, 2013, 447, 424-432.	4.1	86
87	Oxidative degradation of acid doped polybenzimidazole membranes and fuel cell durability in the presence of ferrous ions. Journal of Power Sources, 2013, 238, 516-522.	4.0	44
88	Indium doped niobium phosphates as intermediate temperature proton conductors. International Journal of Hydrogen Energy, 2013, 38, 2464-2470.	3.8	10
89	Covalently Crossâ€Linked Sulfone Polybenzimidazole Membranes with Poly(Vinylbenzyl Chloride) for Fuel Cell Applications. ChemSusChem, 2013, 6, 275-282.	3.6	95
90	Crosslinked Hexafluoropropylidene Polybenzimidazole Membranes with Chloromethyl Polysulfone for Fuel Cell Applications. Advanced Energy Materials, 2013, 3, 622-630.	10.2	146

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91	Corrosion Behavior of Construction Materials for Intermediate Temperature Steam Electrolysers. Advanced Materials Research, 2013, 699, 596-605.	0.3	4
92	Catalyst Degradation in High Temperature Proton Exchange Membrane Fuel Cells Based on Acid Doped Polybenzimidazole Membranes. Fuel Cells, 2013, 13, 822-831.	1.5	17
93	A Direct DME High Temperature PEM Fuel Cell. ECS Transactions, 2013, 50, 869-876.	0.3	2
94	Nickel and Its Alloys as Perspective Materials for Intermediate Temperature Steam Electrolysers Operating on Proton Conducting Solid Acids as Electrolyte. ECS Transactions, 2013, 50, 53-61.	0.3	1
95	The 3rd CARISMA International Conference on Medium and High Temperature Proton Exchange Membrane Fuel Cells. Platinum Metals Review, 2013, 57, 173-176.	1.5	1
96	Metal Phosphates as Intermediate Temperature Proton Conducting Electrolytes. ECS Transactions, 2012, 45, 99-104.	0.3	1
97	Synthesis and properties of poly(aryl sulfone benzimidazole) and its copolymers for high temperature membrane electrolytes for fuel cells. Journal of Materials Chemistry, 2012, 22, 11185.	6.7	72
98	PEM steam electrolysis at 130ÂÂ°C using a phosphoric acid doped short side chain PFSA membrane. International Journal of Hydrogen Energy, 2012, 37, 10992-11000.	3.8	59
99	Tungsten carbide promoted Pd and Pdâ€“Co electrocatalysts for formic acid electrooxidation. Journal of Power Sources, 2012, 219, 106-111.	4.0	76
100	Niobium phosphates as an intermediate temperature proton conducting electrolyte for fuel cells. Journal of Materials Chemistry, 2012, 22, 22452.	6.7	40
101	Thermal curing of PBI membranes for high temperature PEM fuel cells. Journal of Materials Chemistry, 2012, 22, 5444.	6.7	146
102	A Direct DME High Temperature PEM Fuel Cell. ECS Meeting Abstracts, 2012, , .	0.0	0
103	Phosphoric acid doped imidazolium polysulfone membranes for high temperature proton exchange membrane fuel cells. Journal of Power Sources, 2012, 205, 114-121.	4.0	110
104	Direct dimethyl ether fueling of a high temperature polymer fuel cell. Journal of Power Sources, 2012, 211, 173-176.	4.0	20
105	High-temperature proton exchange membranes based on polybenzimidazole and clay composites for fuel cells. Journal of Membrane Science, 2011, 383, 78-87.	4.1	116
106	Crosslinking of polybenzimidazole membranes by divinylsulfone postâ€treatment for highâ€temperature proton exchange membrane fuel cell applications. Polymer International, 2011, 60, 1201-1207.	1.6	52
107	Oxidative Degradation of Polybenzimidazole Membranes as Electrolytes for High Temperature Proton Exchange Membrane Fuel Cells. Fuel Cells, 2011, 11, 745-755.	1.5	84
108	Effect of chloride impurities on the performance and durability of polybenzimidazole-based high temperature proton exchange membrane fuel cells. International Journal of Hydrogen Energy, 2011, 36, 1628-1636.	3.8	32

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109	Phosphoric acid doped membranes based on NafionÂ®, PBI and their blends â€“ Membrane preparation, characterization and steam electrolysis testing. International Journal of Hydrogen Energy, 2011, 36, 6985-6993.	3.8	129
110	Properties, degradation and high temperature fuel cell test of different types of PBI and PBI blend membranes. Journal of Membrane Science, 2010, 347, 260-270.	4.1	199
111	High temperature proton exchange membranes based on polybenzimidazoles for fuel cells. Progress in Polymer Science, 2009, 34, 449-477.	11.8	1,188
112	Partially Fluorinated Aarylene Polyethers and their Ternary Blends with PBI and H₃PO₄. Part II. Characterisation and Fuel Cell Tests of the Ternary Membranes. Fuel Cells, 2008, 8, 188-199.	1.5	80
113	Partially Fluorinated Arylene Polyethers and Their Ternary Blend Membranes with PBI and H₃PO₄. Part I. Synthesis and Characterisation of Polymers and Binary Blend Membranes. Fuel Cells, 2008, 8, 175-187.	1.5	77
114	Development of a high-pressure microbalance for hydrogen storage materials. Journal of Alloys and Compounds, 2007, 446-447, 703-706.	2.8	4
115	The energy efficiency of onboard hydrogen storage. Journal of Alloys and Compounds, 2007, 446-447, 723-728.	2.8	107
116	Cross-Linked Polybenzimidazole Membranes for Fuel Cells. Chemistry of Materials, 2007, 19, 350-352.	3.2	252
117	High temperature PEMFC and the possible utilization of the excess heat for fuel processing. International Journal of Hydrogen Energy, 2007, 32, 1567-1571.	3.8	77
118	Preparation and operation of gas diffusion electrodes for high-temperature proton exchange membrane fuel cells. Journal of Power Sources, 2007, 172, 278-286.	4.0	66
119	Doping phosphoric acid in polybenzimidazole membranes for high temperature proton exchange membrane fuel cells. Journal of Polymer Science Part A, 2007, 45, 2989-2997.	2.5	105
120	Physicochemical properties of phosphoric acid doped polybenzimidazole membranes for fuel cells. Journal of Membrane Science, 2006, 277, 38-45.	4.1	334
121	Gas Difusion Electrodes for PBI Cells. ECS Meeting Abstracts, 2006, , .	0.0	0
122	Integration of high temperature PEM fuel cells with a methanol reformer. Journal of Power Sources, 2005, 145, 392-398.	4.0	177
123	100â€“200â€‰ C polymer fuel cells for use with NaAlH4. Journal of Alloys and Compounds, 2005, 404-406, 653-656.	2.8	53
124	X-ray Diffraction of Subfractions of Petroleum Asphaltenes. Energy & Fuels, 2005, 19, 2371-2377.	2.5	115
125	PBI-Based Polymer Membranes for High Temperature Fuel Cellsâ€“ Preparation, Characterization and Fuel Cell Demonstration. Fuel Cells, 2004, 4, 147-159.	1.5	578
126	An in-situ neutron diffraction study of the ageing of CaNi5Dx at 80Â°C and 9bar. Journal of Alloys and Compounds, 2004, 372, 190-196.	2.8	5

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127	Approaches and Recent Development of Polymer Electrolyte Membranes for Fuel Cells Operating above 100 Â°C. Chemistry of Materials, 2003, 15, 4896-4915.	3.2	1,592
128	The CO Poisoning Effect in PEMFCs Operational at Temperatures up to 200Â°C. Journal of the Electrochemical Society, 2003, 150, A1599.	1.3	519
129	Stability of CaNi5Hx stored at temperatures between 20 and 150Â°C. Journal of Alloys and Compounds, 2002, 330-332, 215-218.	2.8	6
130	The electrochemical impedance of metal hydride electrodes. Electrochimica Acta, 2002, 47, 2871-2884.	2.6	36
131	Structural studies of disordered Mg2NiH4 formed by mechanical grinding. Journal of Alloys and Compounds, 1999, 293-295, 146-149.	2.8	24
132	Systematic B-metal substitution in CaNi5. Journal of Alloys and Compounds, 1999, 293-295, 185-189.	2.8	20