

Bruno G. Pollet

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4755083/publications.pdf>

Version: 2024-02-01

216
papers

10,391
citations

41258

49
h-index

40881

93
g-index

226
all docs

226
docs citations

226
times ranked

9194
citing authors

#	ARTICLE	IF	CITATIONS
1	Support materials for PEMFC and DMFC electrocatalystsâ€”A review. Journal of Power Sources, 2012, 208, 96-119.	4.0	1,055
2	High temperature (HT) polymer electrolyte membrane fuel cells (PEMFC) â€” A review. Journal of Power Sources, 2013, 231, 264-278.	4.0	756
3	Water electrolysis: from textbook knowledge to the latest scientific strategies and industrial developments. Chemical Society Reviews, 2022, 51, 4583-4762.	18.7	453
4	Current status of hybrid, battery and fuel cell electric vehicles: From electrochemistry to market prospects. Electrochimica Acta, 2012, 84, 235-249.	2.6	439
5	Metal hydride hydrogen compressors: A review. International Journal of Hydrogen Energy, 2014, 39, 5818-5851.	3.8	361
6	Ex-situ characterisation of gas diffusion layers for proton exchange membrane fuel cells. Journal of Power Sources, 2012, 218, 393-404.	4.0	269
7	Current status of automotive fuel cells for sustainable transport. Current Opinion in Electrochemistry, 2019, 16, 90-95.	2.5	269
8	Current status of fuel cell based combined heat and power systems for residential sector. Journal of Power Sources, 2015, 293, 312-328.	4.0	212
9	The use of ultrasound for the fabrication of fuel cell materials. International Journal of Hydrogen Energy, 2010, 35, 11986-12004.	3.8	163
10	Sonoelectrochemistry for energy and environmental applications. Ultrasonics Sonochemistry, 2020, 63, 104960.	3.8	154
11	Polymer Electrolyte Membrane Fuel Cell (PEMFC) Flow Field Plate: Design, Materials and Characterisation. Fuel Cells, 2010, 10, 489-509.	1.5	147
12	The development and evaluation of ultrasound in the biocidal treatment of water. Ultrasonics Sonochemistry, 1997, 4, 157-164.	3.8	121
13	Magnesiumâ€”carbon hydrogen storage hybrid materials produced by reactive ball milling in hydrogen. Carbon, 2013, 57, 146-160.	5.4	120
14	A novel method for preparing proton exchange membrane fuel cell electrodes by the ultrasonic-spray technique. Journal of Power Sources, 2011, 196, 8500-8508.	4.0	114
15	Physical and electrochemical evaluation of ATO supported IrO ₂ catalyst for proton exchange membrane water electrolyser. Journal of Power Sources, 2014, 269, 451-460.	4.0	110
16	Sonochemical and sonoelectrochemical production of hydrogen. Ultrasonics Sonochemistry, 2019, 51, 533-555.	3.8	109
17	Metal hydride systems for hydrogen storage and supply for stationary and automotive low temperature PEM fuel cell power modules. International Journal of Hydrogen Energy, 2015, 40, 11491-11497.	3.8	105
18	Effect of clamping pressure on ohmic resistance and compression of gas diffusion layers for polymer electrolyte fuel cells. Journal of Power Sources, 2012, 219, 52-59.	4.0	104

#	ARTICLE	IF	CITATIONS
19	Metal hydride hydrogen storage and supply systems for electric forklift with low-temperature proton exchange membrane fuel cell power module. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 13831-13842.	3.8	100
20	The importance of ultrasonic parameters in the preparation of fuel cell catalyst inks. <i>Electrochimica Acta</i> , 2014, 128, 292-303.	2.6	92
21	Engineered porous Ni ₂ P-nanoparticle/Ni ₂ P-nanosheet arrays via the Kirkendall effect and Ostwald ripening towards efficient overall water splitting. <i>Nano Research</i> , 2020, 13, 2098-2105.	5.8	92
22	Investigation of supported IrO ₂ as electrocatalyst for the oxygen evolution reaction in proton exchange membrane water electrolyser. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 1905-1913.	3.8	91
23	Optimization of gas diffusion electrode for polybenzimidazole-based high temperature proton exchange membrane fuel cell: Evaluation of polymer binders in catalyst layer. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 11370-11378.	3.8	90
24	Recent developments in the sonoelectrochemical synthesis of nanomaterials. <i>Ultrasonics Sonochemistry</i> , 2019, 59, 104711.	3.8	82
25	Characterization and activity test of commercial Ni/Al ₂ O ₃ , Cu/ZnO/Al ₂ O ₃ and prepared Ni-Cu/Al ₂ O ₃ catalysts for hydrogen production from methane and methanol fuels. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 1664-1675.	3.8	79
26	Flow Field Patterns for Proton Exchange Membrane Fuel Cells. <i>Frontiers in Energy Research</i> , 2020, 8, .	1.2	78
27	Development of PVD coatings for PEMFC metallic bipolar plates. <i>Thin Solid Films</i> , 2013, 528, 199-204.	0.8	74
28	Proton exchange membrane fuel cell degradation and testing: review. <i>Journal of the Energy Institute</i> , 2012, 85, 188-200.	2.7	70
29	Low platinum loading for high temperature proton exchange membrane fuel cell developed by ultrasonic spray coating technique. <i>Journal of Power Sources</i> , 2014, 267, 155-159.	4.0	69
30	Thermal conductivity and temperature profiles of the micro porous layers used for the polymer electrolyte membrane fuel cell. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 8437-8447.	3.8	64
31	Nanofiber NiMoO ₄ /g-C ₃ N ₄ Composite Electrode Materials for Redox Supercapacitor Applications. <i>Nanomaterials</i> , 2020, 10, 392.	1.9	63
32	Ultrasonically Surface-Activated Nickel Foam as a Highly Efficient Monolith Electrode for the Catalytic Oxidation of Methanol to Formate. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 30603-30613.	4.0	62
33	Cu-NiO/Co ₃ O ₄ hybrid nanoplates as highly active catalyst for ammonia borane hydrolysis. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 8168-8176.	3.8	61
34	Sonoelectrochemical (20kHz) production of platinum nanoparticles from aqueous solutions. <i>Electrochimica Acta</i> , 2009, 54, 7201-7206.	2.6	60
35	A Co ₃ W ₃ C promoted Pd catalyst exhibiting competitive performance over Pt/C catalysts towards the oxygen reduction reaction. <i>Chemical Communications</i> , 2014, 50, 566-568.	2.2	60
36	Membrane electrode assembly with enhanced platinum utilization for high temperature proton exchange membrane fuel cell prepared by catalyst coating membrane method. <i>Journal of Power Sources</i> , 2014, 266, 107-113.	4.0	60

#	ARTICLE	IF	CITATIONS
37	Sono-electrodeposition (20 and 850kHz) of copper in aqueous and deep eutectic solvents. <i>Electrochimica Acta</i> , 2008, 53, 4248-4256.	2.6	59
38	Letâ€™s Not Ignore the Ultrasonic Effects on the Preparation of Fuel Cell Materials. <i>Electrocatalysis</i> , 2014, 5, 330-343.	1.5	58
39	CuCo ₂ O ₄ nanoplate film as a low-cost, highly active and durable catalyst towards the hydrolytic dehydrogenation of ammonia borane for hydrogen production. <i>Journal of Power Sources</i> , 2017, 355, 191-198.	4.0	57
40	The Use of Power Ultrasound for the Production of PEMFC and PEMWE Catalysts and Low-Pt Loading and High-Performing Electrodes. <i>Catalysts</i> , 2019, 9, 246.	1.6	57
41	Transport Limited Currents Close to an Ultrasonic Horn. <i>Journal of the Electrochemical Society</i> , 2007, 154, E131.	1.3	56
42	The effect of materials on proton exchange membrane fuel cell electrode performance. <i>Journal of Power Sources</i> , 2011, 196, 9013-9017.	4.0	56
43	Performance analysis of cylindrical metal hydride beds with various heat exchange options. <i>Journal of Alloys and Compounds</i> , 2015, 645, S89-S95.	2.8	55
44	Nafion®-stabilised Pt/C electrocatalysts with efficient catalyst layer ionomer distribution for proton exchange membrane fuel cells. <i>RSC Advances</i> , 2012, 2, 8368.	1.7	54
45	N-doped porous transition metal-based carbon nanosheet networks as a multifunctional electrocatalyst for rechargeable zinc-air batteries. <i>Chemical Communications</i> , 2019, 55, 2924-2927.	2.2	54
46	Poisoning-tolerant metal hydride materials and their application for hydrogen separation from CO ₂ /CO containing gas mixtures. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 9800-9810.	3.8	52
47	Niche applications of metal hydrides and related thermal management issues. <i>Journal of Alloys and Compounds</i> , 2015, 645, S117-S122.	2.8	52
48	Fuel cell-battery hybrid powered light electric vehicle (golf cart): Influence of fuel cell on the driving performance. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 10630-10639.	3.8	51
49	The Sono-Hydro-Gen process (Ultrasound induced hydrogen production): Challenges and opportunities. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 14500-14526.	3.8	51
50	The effect of ultrasonic frequency and intensity upon limiting currents at rotating disc and stationary electrodes. <i>Electrochimica Acta</i> , 1996, 41, 2737-2741.	2.6	50
51	A novel dual catalyst layer structured gas diffusion electrode for enhanced performance of high temperature proton exchange membrane fuel cell. <i>Journal of Power Sources</i> , 2014, 246, 63-67.	4.0	50
52	Study of thermal conductivity of PEM fuel cell catalyst layers. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 9397-9408.	3.8	50
53	Current energy landscape in the Republic of South Africa. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 16685-16701.	3.8	50
54	Multidimensional regulation of Ni ₃ S ₂ @Co(OH) ₂ catalyst with high performance for wind energy electrolytic water. <i>Journal of Power Sources</i> , 2020, 446, 227348.	4.0	50

#	ARTICLE	IF	CITATIONS
55	The effect of ultrasound upon the oxidation of thiosulphate on stainless steel and platinum electrodes. <i>Ultrasonics Sonochemistry</i> , 2002, 9, 267-274.	3.8	49
56	The effect of Nafion ionomer loading coated on gas diffusion electrodes with in-situ grown Pt nanowires and their durability in proton exchange membrane fuel cells. <i>International Journal of Hydrogen Energy</i> , 2011, 36, 4386-4393.	3.8	49
57	Co ₃ O ₄ /CuMoO ₄ Hybrid Microflowers Composed of Nanorods with Rich Particle Boundaries as a Highly Active Catalyst for Ammonia Borane Hydrolysis. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 16474-16482.	3.2	49
58	Highly Efficient and Stable Catalyst Based on Co(OH) ₂ @Ni Electroplated on Cu-Metallized Cotton Textile for Water Splitting. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 29791-29798.	4.0	49
59	Nafion-stabilised platinum nanoparticles supported on titanium nitride: An efficient and durable electrocatalyst for phosphoric acid based polymer electrolyte fuel cells. <i>Electrochimica Acta</i> , 2013, 109, 365-369.	2.6	48
60	Sonoelectrochemical recovery of silver from photographic processing solutions. <i>Ultrasonics Sonochemistry</i> , 2000, 7, 69-76.	3.8	47
61	Ru _x Nb _{1-x} O ₂ catalyst for the oxygen evolution reaction in proton exchange membrane water electrolyzers. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 8605-8616.	3.8	47
62	Development of membrane electrode assembly for high temperature proton exchange membrane fuel cell by catalyst coating membrane method. <i>Journal of Power Sources</i> , 2015, 288, 121-127.	4.0	44
63	The effect upon limiting currents and potentials of coupling a rotating disc and cylindrical electrode with ultrasound. <i>Electrochimica Acta</i> , 1998, 43, 449-455.	2.6	43
64	Mesoporous CoS/N-doped Carbon as HER and ORR Bifunctional Electrocatalyst for Water Electrolyzers and Zinc-Air Batteries. <i>ChemCatChem</i> , 2019, 11, 1026-1032.	1.8	43
65	Catalyst loading for Pt-nanowire thin film electrodes in PEFCs. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 17892-17898.	3.8	41
66	Highly active porous Co-B nanoalloy synthesized on liquid-gas interface for hydrolysis of sodium borohydride. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 17543-17555.	3.8	41
67	Ex-Situ Electrochemical Characterization of IrO ₂ Synthesized by a Modified Adams Fusion Method for the Oxygen Evolution Reaction. <i>Catalysts</i> , 2019, 9, 318.	1.6	40
68	How do dissolved gases affect the sonochemical process of hydrogen production? An overview of thermodynamic and mechanistic effects – On the “hot spot theory”. <i>Ultrasonics Sonochemistry</i> , 2021, 72, 105422.	3.8	40
69	A new route to control texture of materials: Nanostructured ZnFe ₂ O ₄ photoelectrodes. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 4315-4323.	3.8	39
70	Thermal conductivity in the three layered regions of micro porous layer coated porous transport layers for the PEM fuel cell. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 16775-16785.	3.8	38
71	Review on management, mechanisms and modelling of thermal processes in PEMFC. <i>Hydrogen and Fuel Cells</i> , 2016, 1, 1-20.	2.0	38
72	Graphene modified fluorinated cation-exchange membranes for proton exchange membrane water electrolysis. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 10190-10196.	3.8	38

#	ARTICLE	IF	CITATIONS
73	A highly efficient water electrolyser cell assembled by asymmetric array electrodes based on Co, Fe-doped Ni(OH) ₂ nanosheets. <i>Applied Surface Science</i> , 2020, 528, 146972.	3.1	38
74	Respective contribution of cavitation and convective flow to local stirring in sonoreactors. <i>Ultrasonics Sonochemistry</i> , 2011, 18, 881-887.	3.8	37
75	Thermally Driven Metal Hydride Hydrogen Compressor for Medium-Scale Applications. <i>Energy Procedia</i> , 2012, 29, 347-356.	1.8	37
76	FeN stabilized FeN@Pt core-shell nanostructures for oxygen reduction reaction. <i>Journal of Materials Chemistry A</i> , 2015, 3, 4462-4469.	5.2	37
77	Amorphous PtNiP particle networks of different particle sizes for the electro-oxidation of hydrazine. <i>RSC Advances</i> , 2015, 5, 68655-68661.	1.7	37
78	Enhanced performance of polybenzimidazole-based high temperature proton exchange membrane fuel cell with gas diffusion electrodes prepared by automatic catalyst spraying under irradiation technique. <i>Journal of Power Sources</i> , 2013, 242, 510-519.	4.0	36
79	Tailoring nanopores within nanoparticles of PtCo networks as catalysts for methanol oxidation reaction. <i>Electrochimica Acta</i> , 2017, 255, 55-62.	2.6	36
80	Theoretical studies of Pt-Ti nanoparticles for potential use as PEMFC electrocatalysts. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 3134.	1.3	35
81	Electrophoresis and stability of nano-colloids: History, theory and experimental examples. <i>Advances in Colloid and Interface Science</i> , 2014, 211, 77-92.	7.0	35
82	Sonoelectrochemical one-pot synthesis of Pt-Carbon black nanocomposite PEMFC electrocatalyst. <i>Ultrasonics Sonochemistry</i> , 2017, 35, 591-597.	3.8	35
83	Integrating Ni nanoparticles into MoN nanosheets form Schottky heterojunctions to boost its electrochemical performance for water electrolysis. <i>Journal of Alloys and Compounds</i> , 2021, 867, 158983.	2.8	35
84	Graphene inclusion effect on anion-exchange membranes properties for alkaline water electrolyzers. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 17057-17066.	3.8	35
85	A novel method for preparing PEMFC electrodes by the ultrasonic and sonoelectrochemical techniques. <i>Electrochemistry Communications</i> , 2009, 11, 1445-1448.	2.3	34
86	Enhanced durability of a Pt/C electrocatalyst derived from Nafion-stabilised colloidal platinum nanoparticles. <i>Electrochemistry Communications</i> , 2010, 12, 1017-1020.	2.3	34
87	Electroless Production of Fertilizer (Struvite) and Hydrogen from Synthetic Agricultural Wastewaters. <i>Journal of the American Chemical Society</i> , 2020, 142, 18844-18858.	6.6	33
88	Hf-Doped Tungsten Oxide Nanorods as Electrode Materials for Electrochemical Detection of Paracetamol and Salbutamol. <i>ACS Applied Nano Materials</i> , 2022, 5, 1263-1275.	2.4	33
89	Hydrogen South Africa (HySA) Systems Competence Centre: Mission, objectives, technological achievements and breakthroughs. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 3577-3596.	3.8	32
90	Magnesium-based hydrogen storage nanomaterials prepared by high energy reactive ball milling in hydrogen at the presence of mixed titanium-iron oxide. <i>Journal of Alloys and Compounds</i> , 2015, 645, S454-S459.	2.8	32

#	ARTICLE	IF	CITATIONS
91	Does power ultrasound affect heterogeneous electron transfer kinetics?. <i>Ultrasonics Sonochemistry</i> , 2019, 52, 6-12.	3.8	32
92	A novel non-linear model-based control strategy to improve PEMFC water management – The flatness-based approach. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 2371-2376.	3.8	31
93	Effect of power ultrasound and Fenton reagents on the biomethane potential from steam-exploded birchwood. <i>Ultrasonics Sonochemistry</i> , 2019, 58, 104675.	3.8	31
94	Hierarchical core-shell structured CoNi ₂ S ₄ /Ni ₃ S ₂ @Ni(OH) ₂ nanosheet arrays as electrode for electrochemical energy storage. <i>Journal of Alloys and Compounds</i> , 2019, 785, 684-691.	2.8	30
95	Validation of an externally oil-cooled 1 MWel HT-PEMFC stack operating at various experimental conditions. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 9847-9855.	3.8	29
96	MnO/Ni-Doped Mesoporous Carbon as Advanced Oxygen Reduction Reaction Electrocatalyst for Zinc-Air Batteries. <i>Chemistry - A European Journal</i> , 2019, 25, 2868-2876.	1.7	29
97	Hafnium doped tungsten oxide intercalated carbon matrix for electrochemical detection of perfluorooctanoic acid. <i>Chemical Engineering Journal</i> , 2022, 434, 134700.	6.6	29
98	Application of surface-modified metal hydrides for hydrogen separation from gas mixtures containing carbon dioxide and monoxide. <i>Journal of Alloys and Compounds</i> , 2013, 580, S382-S385.	2.8	28
99	Effect of Platinum Distribution in Dual Catalyst Layer Structured Gas Diffusion Electrode on the Performance of High Temperature PEMFC. <i>Journal of the Electrochemical Society</i> , 2014, 161, F506-F512.	1.3	28
100	Regrowth in ship's ballast water tanks: Think again!. <i>Marine Pollution Bulletin</i> , 2016, 109, 46-48.	2.3	28
101	Enhanced Cycleability of Amorphous MnO ₂ by Covering on γ -MnO ₂ Needles in an Electrochemical Capacitor. <i>Materials</i> , 2017, 10, 988.	1.3	28
102	Sonoelectrochemical (20 kHz) production of Co ₆₅ Fe ₃₅ alloy nanoparticles from Aotani solutions. <i>Journal of Applied Electrochemistry</i> , 2008, 38, 395-402.	1.5	27
103	– Distributed hybrid –MH–CGH ₂ system for hydrogen storage and its supply to LT PEMFC power modules. <i>Journal of Alloys and Compounds</i> , 2015, 645, S329-S333.	2.8	27
104	Achieving highly practical capacitance of MnO ₂ by using chain-like CoB alloy as support. <i>Nanoscale</i> , 2018, 10, 7813-7820.	2.8	27
105	A Short Introduction to Sonoelectrochemistry. <i>Electrochemical Society Interface</i> , 2018, 27, 41-42.	0.3	26
106	Sonochemical and Sonoelectrochemical Production of Energy Materials. <i>Catalysts</i> , 2021, 11, 284.	1.6	25
107	From Bad Electrochemical Practices to an Environmental and Waste Reducing Approach for the Generation of Active Hydrogen Evolving Electrodes. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 17383-17392.	7.2	24
108	Sonochemical dosimetry: A comparative study of Weissler, Fricke and terephthalic acid methods. <i>Ultrasonics Sonochemistry</i> , 2021, 72, 105413.	3.8	24

#	ARTICLE	IF	CITATIONS
109	Bulk power transmission at sea: Life cycle cost comparison of electricity and hydrogen as energy vectors. <i>Applied Energy</i> , 2021, 288, 116625.	5.1	24
110	A high-performance asymmetric supercapacitor consists of binder free electrode materials of bimetallic hydrogen phosphate (MnCo(HPO ₄)) hexagonal tubes and graphene ink. <i>Electrochimica Acta</i> , 2022, 426, 140763.	2.6	24
111	Title is missing!. <i>Journal of Applied Electrochemistry</i> , 1999, 29, 1359-1366.	1.5	23
112	Optimisation of electrophoretic deposition parameters for gas diffusion electrodes in high temperature polymer electrolyte membrane fuel cells. <i>Journal of Power Sources</i> , 2013, 243, 40-47.	4.0	23
113	Measuring the thermal conductivity of membrane and porous transport layer in proton and anion exchange membrane water electrolyzers for temperature distribution modeling. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 1236-1254.	3.8	23
114	Two routes for sonochemical synthesis of platinum nanoparticles with narrow size distribution. <i>Materials Advances</i> , 2021, 2, 1962-1971.	2.6	23
115	Comment on "How green is blue hydrogen?". <i>Energy Science and Engineering</i> , 2022, 10, 1944-1954.	1.9	23
116	(Invited) Novel Fuel Production Based on Sonochemistry and Sonoelectrochemistry. <i>ECS Transactions</i> , 2019, 92, 1-16.	0.3	22
117	Hollow core-shell structured Cu ₂ O@Cu _{1.8} S spheres as novel electrode for enzyme free glucose sensing. <i>Materials Science and Engineering C</i> , 2019, 95, 174-182.	3.8	22
118	Does power ultrasound affect Nafion® dispersions?. <i>Ultrasonics Sonochemistry</i> , 2020, 60, 104758.	3.8	22
119	Does power ultrasound (26 kHz) affect the hydrogen evolution reaction (HER) on Pt polycrystalline electrode in a mild acidic electrolyte?. <i>Ultrasonics Sonochemistry</i> , 2020, 69, 105238.	3.8	22
120	Electrochemical study of silver thiosulphate reduction in the absence and presence of ultrasound. <i>Ultrasonics Sonochemistry</i> , 2005, 12, 7-11.	3.8	21
121	Hydrogen fuel cell hybrid vehicles (HFCHV) for Birmingham campus. <i>Journal of Power Sources</i> , 2011, 196, 325-330.	4.0	21
122	Platinum sonoelectrodeposition on glassy carbon and gas diffusion layer electrodes. <i>International Journal of Hydrogen Energy</i> , 2011, 36, 6248-6258.	3.8	21
123	Enhanced performance and stability of high temperature proton exchange membrane fuel cell by incorporating zirconium hydrogen phosphate in catalyst layer. <i>Journal of Power Sources</i> , 2015, 278, 718-724.	4.0	21
124	Electronic Properties of Pt-Ti Nanoalloys and the Effect on Reactivity for Use in PEMFCs. <i>Journal of Physical Chemistry C</i> , 2012, 116, 15241-15250.	1.5	20
125	Ni ₂ P nanoparticles-inserted NiFeP nanosheets with rich interfaces as efficient catalysts for the oxygen evolution reaction. <i>Journal of Alloys and Compounds</i> , 2022, 903, 163855.	2.8	20
126	Hydrogen fuel cell hybrid scooter (HFCHS) with plug-in features on Birmingham campus. <i>International Journal of Hydrogen Energy</i> , 2010, 35, 12709-12715.	3.8	19

#	ARTICLE	IF	CITATIONS
127	Ultra-high surface area and mesoporous N-doped carbon derived from sheep bones with high electrocatalytic performance toward the oxygen reduction reaction. <i>Journal of Solid State Electrochemistry</i> , 2017, 21, 2947-2954.	1.2	19
128	Performance Investigation of Membrane Electrode Assemblies for High Temperature Proton Exchange Membrane Fuel Cell. <i>Journal of Power and Energy Engineering</i> , 2013, 01, 95-100.	0.3	19
129	Three-dimensional hierarchical walnut kernel shape conducting polymer as water soluble binder for lithium-ion battery. <i>Electrochimica Acta</i> , 2018, 269, 571-579.	2.6	18
130	Fuel-cell (hydrogen) electric hybrid vehicles. , 2014, , 685-735.		17
131	Tailoring the oxide surface composition of stainless steel for improved OER performance in alkaline water electrolysis. <i>Electrochimica Acta</i> , 2022, 424, 140561.	2.6	16
132	Manufacturing of Hydride-Forming Alloys from Mixed Titanium-Iron Oxide. <i>Advanced Materials Research</i> , 0, 746, 14-22.	0.3	15
133	MOF derived graphitic carbon nitride/oxygen vacancies-rich zinc oxide nanocomposites with enhanced supercapacitive performance. <i>Ionics</i> , 2020, 26, 5155-5165.	1.2	15
134	Seeking minimum entropy production for a tree-like flow-field in a fuel cell. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 6993-7003.	1.3	15
135	Co ₃ O ₄ –CuCoO ₂ hybrid nanoplates as a low-cost and highly active catalyst for producing hydrogen from ammonia borane. <i>New Journal of Chemistry</i> , 2021, 45, 2688-2695.	1.4	15
136	Using Ultrasound to Effectively Homogenise Catalyst Inks: Is this Approach Still Acceptable?. <i>Johnson Matthey Technology Review</i> , 2022, 66, 61-76.	0.5	15
137	Low carbon ultrasonic production of alternate fuel: Operational and mechanistic concerns of the sonochemical process of hydrogen generation under various scenarios. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 26770-26787.	3.8	15
138	Understanding the Effects of Ultrasound (408 kHz) on the Hydrogen Evolution Reaction (HER) and the Oxygen Evolution Reaction (OER) on Raney-Ni in Alkaline Media. <i>Ultrasonics Sonochemistry</i> , 2022, 84, 105979.	3.8	15
139	Sonoelectrochemistry: Both a Tool for Investigating Mechanisms and for Accelerating Processes. <i>Electrochemical Society Interface</i> , 2018, 27, 47-51.	0.3	14
140	Electroreduction of oxygen on Nafion®-coated thin platinum films in acid media. <i>Journal of Electroanalytical Chemistry</i> , 2019, 848, 113292.	1.9	14
141	Sonochemical conversion of CO ₂ into hydrocarbons: The Sabatier reaction at ambient conditions. <i>Ultrasonics Sonochemistry</i> , 2021, 73, 105474.	3.8	14
142	Scaling factors for channel width variations in tree-like flow field patterns for polymer electrolyte membrane fuel cells - An experimental study. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 19554-19568.	3.8	14
143	Development of non-stoichiometric hybrid Co ₃ S ₄ /Co _{0.85} Se nanocomposites for an evaluation of synergistic effect on the OER performance. <i>Surfaces and Interfaces</i> , 2021, 25, 101161.	1.5	14
144	A novel angular geometry for the sonochemical silver recovery process at cylinder electrodes. <i>Ultrasonics Sonochemistry</i> , 2003, 10, 217-222.	3.8	12

#	ARTICLE	IF	CITATIONS
145	Control of nanoparticle aggregation in PEMFCs using surfactants. International Journal of Low-Carbon Technologies, 2012, 7, 38-43.	1.2	12
146	Hydrogen and Fuel Cells in Transport. , 2012, , 301-313.		12
147	Hydrogen absorption study of high-energy reactive ball milled Mg composites with palladium additives. Journal of Alloys and Compounds, 2013, 580, S144-S148.	2.8	12
148	CsHSO ₄ as proton conductor for high-temperature polymer electrolyte membrane fuel cells. Journal of Applied Electrochemistry, 2014, 44, 1037-1045.	1.5	12
149	Thermal Gradients with Sintered Solid State Electrolytes in Lithium-Ion Batteries. Energies, 2020, 13, 253.	1.6	12
150	Transport reaction through ion-exchange membranes: modelling of ligand transport by a complexing counter-ion and experiments with ammine and polyborate ions. Desalination, 1988, 68, 131-148.	4.0	11
151	High-Performance and Durable Membrane Electrode Assemblies for High-Temperature Polymer Electrolyte Membrane Fuel Cells. Electrocatalysis, 2014, 5, 361-371.	1.5	11
152	Tuning the extent of porosity and composition of N-doped carbon materials by NaNO ₃ and its effect on electrochemical activity. Materials Research Bulletin, 2018, 104, 134-142.	2.7	11
153	Toward high performance of zinc-air battery using hydrophobic carbon foam-based diffusion electrode. Journal of Industrial and Engineering Chemistry, 2019, 71, 284-292.	2.9	11
154	Assessment of the beneficial combination of electrochemical and ultrasonic activation of compounds originating from biomass. Ultrasonics Sonochemistry, 2020, 63, 104934.	3.8	11
155	Electrochemical nutrient removal from natural wastewater sources and its impact on water quality. Water Research, 2022, 210, 118001.	5.3	11
156	Frequency controlled agglomeration of Pt-nanoparticles in sonochemical synthesis. Ultrasonics Sonochemistry, 2022, 85, 105991.	3.8	11
157	Pt-Sn/C as a Possible Methanol-Tolerant Cathode Catalyst for DMFC. Electrocatalysis, 2013, 4, 144-153.	1.5	10
158	V ₂ O ₅ -SiO ₂ hybrid as anode material for aqueous rechargeable lithium batteries. Ionics, 2016, 22, 1593-1601.	1.2	10
159	The Use of Ultrasound for the Electrochemical Synthesis of Magnesium Ammonium Phosphate Hexahydrate (Struvite). ECS Transactions, 2019, 92, 47-55.	0.3	10
160	Fractal-Like Flow-Fields with Minimum Entropy Production for Polymer Electrolyte Membrane Fuel Cells. Entropy, 2020, 22, 176.	1.1	10
161	The effects of power ultrasound (24 kHz) on the electrochemical reduction of CO ₂ on polycrystalline copper electrodes. Ultrasonics Sonochemistry, 2021, 72, 105401.	3.8	10
162	Gas Diffusion Media and their Degradation. , 2012, , 215-247.		9

#	ARTICLE	IF	CITATIONS
163	Fabrication of gas diffusion electrodes via electrophoretic deposition for high temperature polymer electrolyte membrane fuel cells. <i>Journal of Power Sources</i> , 2014, 258, 238-245.	4.0	9
164	Modeling and control of the output current of a Reformed Methanol Fuel Cell system. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 16521-16531.	3.8	9
165	Nano-sized Co/Co(OH) ₂ core-shell structure synthesized in molten salt as electrode materials for supercapacitors. <i>Ionics</i> , 2017, 23, 725-730.	1.2	9
166	The influence of graphitization on the thermal conductivity of catalyst layers and temperature gradients in proton exchange membrane fuel cells. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 1335-1342.	3.8	9
167	Hybrid polymer electrolyte membrane fuel cell-lithium-ion battery powertrain testing platform - hybrid fuel cell electric vehicle emulator. <i>International Journal of Energy Research</i> , 2017, 41, 1596-1611.	2.2	8
168	Self-standing heterostructured NiC _x -NiFe-NC/biochar as a highly efficient cathode for lithium-oxygen batteries. <i>Beilstein Journal of Nanotechnology</i> , 2020, 11, 1809-1821.	1.5	8
169	Advances in rapid and effective break-in/conditioning/recovery of automotive PEMFC stacks. <i>Current Opinion in Electrochemistry</i> , 2022, 31, 100843.	2.5	8
170	The Impact of Peltier and Dufour Coefficients on Heat Fluxes and Temperature Profiles in the Polymer Electrolyte Fuel Cells. <i>Journal of the Electrochemical Society</i> , 2020, 167, 144503.	1.3	8
171	Nano-engineering PdNi networks by voltammetric dealloying for ethanol oxidation. <i>Journal of Applied Electrochemistry</i> , 2019, 49, 39-44.	1.5	7
172	The Use of Power Ultrasound and Sonochemistry for the Production of Energy Materials. <i>Ultrasonics Sonochemistry</i> , 2020, 64, 104851.	3.8	7
173	Short Introduction to Sonoelectrochemistry. <i>Springer Briefs in Molecular Science</i> , 2019, , 21-39.	0.1	7
174	Mission and objectives of the Hydrogen South Africa (HySA) Systems Competence Centre. <i>Fuel Cells Bulletin</i> , 2013, 2013, 10-17.	0.7	6
175	Synthesis and characterisation of a new sulphonated hydrocarbon polymer for application as a solid proton-conducting electrolyte. <i>Solid State Ionics</i> , 2014, 263, 62-70.	1.3	6
176	The Effects of Cathode Parameters on the Performance of Poly(2,5-Benzimidazole)-Based Polymer Electrolyte Membrane Fuel Cell. <i>Electrocatalysis</i> , 2015, 6, 155-162.	1.5	6
177	An Electrochemical Study of Ammonium Dihydrogen Phosphate on Mg and Mg Alloy Electrodes. <i>Electrocatalysis</i> , 2021, 12, 251-263.	1.5	6
178	Does power ultrasound affect hydrocarbon Ionomers?. <i>Ultrasonics Sonochemistry</i> , 2021, 75, 105588.	3.8	6
179	Fundamental and Applied Aspects of Ultrasonics and Sonochemistry. <i>Springer Briefs in Molecular Science</i> , 2019, , 1-19.	0.1	6
180	The effect of anode degradation on energy demand and production efficiency of electrochemically precipitated struvite. <i>Journal of Applied Electrochemistry</i> , 2022, 52, 205-215.	1.5	6

#	ARTICLE	IF	CITATIONS
181	Double-structured ultrasonic high frequency reactor using an optimised slant bottom. <i>Ultrasonics Sonochemistry</i> , 2000, 7, 201-205.	3.8	5
182	Supported 3-D Pt nanostructures: the straightforward synthesis and enhanced electrochemical performance for methanol oxidation in an acidic medium. <i>Journal of Nanoparticle Research</i> , 2013, 15, 1.	0.8	5
183	Hydrogen and Fuel Cell Technologies at the Hydrogen South Africa (HySA) Systems Competence Centre. <i>Platinum Metals Review</i> , 2014, 58, 68-81.	1.5	5
184	<i>(Invited)</i> Thermal Gradients and Thermal Conductivity in PEM Fuel Cells, Compared to Li-Ion Batteries and Super Capacitors. <i>ECS Transactions</i> , 2018, 86, 97-109.	0.3	5
185	The Use of Ultrasound (20kHz) as a Novel Method for Preparing Proton Exchange Membrane Fuel Cell Electrodes. <i>ECS Transactions</i> , 2008, 16, 2031-2041.	0.3	4
186	Hybrid hydrogen PEM fuel cell and batteries without DCâ€“DC converter. <i>International Journal of Low-Carbon Technologies</i> , 2016, 11, 205-210.	1.2	4
187	The use of non-cavitating coupling fluids for intensifying sonoelectrochemical processes. <i>Ultrasonics Sonochemistry</i> , 2020, 66, 105087.	3.8	4
188	Reaction in ion exchangers. Apparent stability constants of complexes and salting-in (out) effects. <i>Reactive Polymers, Ion Exchangers, Sorbents</i> , 1988, 7, 111-122.	0.1	3
189	The Use of Ionic and Non-Ionic Surfactants for the Control of Platinum Nanoparticle Aggregation in Proton Exchange Membrane Fuel Cells (PEMFCs). <i>ECS Transactions</i> , 2011, 41, 2165-2173.	0.3	3
190	From Bad Electrochemical Practices to an Environmental and Waste Reducing Approach for the Generation of Active Hydrogen Evolving Electrodes. <i>Angewandte Chemie</i> , 2019, 131, 17544-17553.	1.6	3
191	Thermal Management of Lithium-Ion Batteries. , 2020, , 183-194.		3
192	Ultrasound-Assisted Electrolytic Hydrogen Production. , 2020, , 73-84.		3
193	Morphological Origins of the Enhanced Durability of a Pt/C Electrocatalyst Derived from Nafion®-Stabilized Colloidal Pt Nanoparticles. <i>ECS Transactions</i> , 2010, 33, 557-561.	0.3	2
194	The Energy Landscape in the Republic of South Africa. <i>SpringerBriefs in Energy</i> , 2016, , .	0.2	2
195	Hydrogen Fuel Cells and Water Electrolysers. , 2020, , 61-71.		2
196	Sonoactivated polycrystalline Ni electrodes for alkaline oxygen evolution reaction. <i>Ultrasonics Sonochemistry</i> , 2022, 86, 106013.	3.8	2
197	Pt Decorated Amorphous Ru Alloys as High Efficiency Electrocatalyst for Methanol Oxidation. <i>ECS Transactions</i> , 2013, 50, 1943-1950.	0.3	1
198	â€œPolymer Electrolyte Membrane and Direct Methanol Fuel Cell Technologyâ€• <i>Platinum Metals Review</i> , 2013, 57, 137-142.	1.5	1

#	ARTICLE	IF	CITATIONS
199	SA government, HySA launch prototype fuel cell generator solution. Fuel Cells Bulletin, 2014, 2014, 5-6.	0.7	1
200	Sonoelectrochemical Production of Fuel Cell Nanomaterials. Nanostructure Science and Technology, 2016, , 409-433.	0.1	1
201	Electroless Route to Prepare Cu Film Composed of Cu Nanosheets as a High Performance Catalyst for the Reduction of p-NO_2 Nitrophenol. Bulletin of the Korean Chemical Society, 2016, 37, 2080-2083.	1.0	1
202	Editorial: Recent Development of Nanocatalysts for Hydrogen Production. Frontiers in Chemistry, 2020, 8, 576.	1.8	1
203	Sonoelectrochemical CO_2 Reduction on Polycrystalline Copper Electrodes. ECS Meeting Abstracts, 2019, MA2019-02, 2182-2182.	0.0	1
204	How to Avoid Total Dissolved Gas Supersaturation in Water from Hydropower Plants by Employing Ultrasound. Journal of Physics: Conference Series, 2020, 1608, 012004.	0.3	1
205	Analytical applications of electrochemiluminescence. , 2001, , .		0
206	Hydrogen and Fuel Cells: For a Low Carbon Future. Platinum Metals Review, 2009, 53, 78-85.	1.5	0
207	Novel Composite Proton Exchange Membrane Materials for Intermediate Temperature Fuel Cells. Procedia Engineering, 2012, 44, 858-860.	1.2	0
208	Comment on "Novel synthesis of highly durable and active Pt catalyst encapsulated in nitrogen containing carbon for polymer electrolyte membrane fuel cell"™. Journal of Power Sources, 2017, 363, 480-481.	4.0	0
209	h2fcTrondheim 2018. International Journal of Hydrogen Energy, 2020, 45, 1199-1200.	3.8	0
210	The electrochemistry of ammonium dihydrogen phosphate, disodium phosphate, ammonium chloride on Mg-based and polycrystalline Pt electrodes. Electrochemical Science Advances, 0, , e2100067.	1.2	0
211	(Invited) Hydrogen Fuel Cell Systems in Nordic Regions. ECS Meeting Abstracts, 2018, , .	0.0	0
212	(Invited) Novel Fuel Production Based on Sonochemistry and Sonoelectrochemistry. ECS Meeting Abstracts, 2019, , .	0.0	0
213	(Invited) Sonoelectrochemistry: A Powerful Tool for Elucidating Mechanisms and for Accelerating Electrochemical Processes. ECS Meeting Abstracts, 2019, , .	0.0	0
214	Sonoelectrochemical Synthesis of Proton Exchange Membrane Water Electrolyzer (PEMWE) Electrocatalysts. ECS Meeting Abstracts, 2019, , .	0.0	0
215	Electrochemical Precipitation of Struvite in Acidic Environment: Pure Magnesium Vs. AZ31 Alloy Anode. ECS Meeting Abstracts, 2019, , .	0.0	0
216	Thermal Gradients through Sintered Solid State Electrolytes in Lithium-Ion Batteries. ECS Meeting Abstracts, 2019, , .	0.0	0