

Pierre Millet

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

101
papers

3,762
citations

31
h-index

59
g-index

104
ext. papers

4,531
ext. citations

7.4
avg, IF

5.76
L-index

#	Paper	IF	Citations
101	PEM water electrolyzers: From electrocatalysis to stack development. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 5043-5052	6.7	247
100	Evaluation of carbon-supported Pt and Pd nanoparticles for the hydrogen evolution reaction in PEM water electrolyzers. <i>Journal of Power Sources</i> , 2008 , 177, 281-285	8.9	243
99	Electrochemical performances of PEM water electrolysis cells and perspectives. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 4134-4142	6.7	237
98	Design and performance of a solid polymer electrolyte water electrolyzer. <i>International Journal of Hydrogen Energy</i> , 1996 , 21, 87-93	6.7	204
97	Optimization of porous current collectors for PEM water electrolyzers. <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 4968-4973	6.7	185
96	New solid polymer electrolyte composites for water electrolysis. <i>Journal of Applied Electrochemistry</i> , 1989 , 19, 162-166	2.6	135
95	High-pressure PEM water electrolysis and corresponding safety issues. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 2721-2728	6.7	128
94	Current status, research trends, and challenges in water electrolysis science and technology. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 26036-26058	6.7	128
93	Hydrogen safety aspects related to high-pressure polymer electrolyte membrane water electrolysis. <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 5986-5991	6.7	123
92	Electroactivity of cobalt and nickel glyoximes with regard to the electro-reduction of protons into molecular hydrogen in acidic media. <i>Electrochemistry Communications</i> , 2007 , 9, 54-58	5.1	121
91	Influence of iridium oxide loadings on the performance of PEM water electrolysis cells: Part I Pure IrO ₂ -based anodes. <i>Applied Catalysis B: Environmental</i> , 2016 , 182, 153-160	21.8	109
90	Cobalt clathrochelate complexes as hydrogen-producing catalysts. <i>Angewandte Chemie - International Edition</i> , 2008 , 47, 9948-50	16.4	106
89	GenHyPEM: A research program on PEM water electrolysis supported by the European Commission. <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 4974-4982	6.7	93
88	Scientific and engineering issues related to PEM technology: Water electrolyzers, fuel cells and unitized regenerative systems. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 4156-4163	6.7	84
87	Influence of iridium oxide loadings on the performance of PEM water electrolysis cells: Part II Advanced oxygen electrodes. <i>Applied Catalysis B: Environmental</i> , 2016 , 182, 123-131	21.8	75
86	Electrochemical characterization of Polymer Electrolyte Membrane Water Electrolysis Cells. <i>Electrochimica Acta</i> , 2014 , 131, 160-167	6.7	74
85	Solid polymer electrolyte water electrolysis: electrocatalysis and long-term stability. <i>International Journal of Hydrogen Energy</i> , 1994 , 19, 421-427	6.7	74

84	Description and characterization of an electrochemical hydrogen compressor/concentrator based on solid polymer electrolyte technology. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 4148-4155	6.7	73
83	Failure of PEM water electrolysis cells: Case study involving anode dissolution and membrane thinning. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 20440-20446	6.7	67
82	Design and characterization of bi-functional electrocatalytic layers for application in PEM unitized regenerative fuel cells. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 5070-5076	6.7	66
81	Preparation of new solid polymer electrolyte composites for water electrolysis. <i>International Journal of Hydrogen Energy</i> , 1990 , 15, 245-253	6.7	60
80	Cell failure mechanisms in PEM water electrolyzers. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 17478-17487	6.7	57
79	Platinum and palladium nano-particles supported by graphitic nano-fibers as catalysts for PEM water electrolysis. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 4143-4147	6.7	52
78	Characterization of membrane-electrode assemblies for solid polymer electrolyte water electrolysis. <i>Journal of Applied Electrochemistry</i> , 1993 , 23, 322-331	2.6	52
77	An analysis of PEM water electrolysis cells operating at elevated current densities. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 9708-9717	6.7	46
76	The role of surface states during photocurrent switching: Intensity modulated photocurrent spectroscopy analysis of BiVO ₄ photoelectrodes. <i>Applied Catalysis B: Environmental</i> , 2018 , 237, 401-408	21.8	45
75	Water Electrolysis Technologies 2013 , 19-41		45
74	Implementing molecular catalysts for hydrogen production in proton exchange membrane water electrolyzers. <i>Coordination Chemistry Reviews</i> , 2012 , 256, 2435-2444	23.2	44
73	A critical review on the definitions used to calculate the energy efficiency coefficients of water electrolysis cells working under near ambient temperature conditions. <i>Journal of Power Sources</i> , 2020 , 447, 227350	8.9	37
72	Time and frequency domain analysis of hydrogen permeation across PdCu metallic membranes for hydrogen purification. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 4883-4892	6.7	32
71	Plasma-assisted Pt and PtPd nano-particles deposition on carbon carriers for application in PEM electrochemical cells. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 8568-8574	6.7	31
70	Characterization of carbon-supported platinum nano-particles synthesized using magnetron sputtering for application in PEM electrochemical systems. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 426-430	6.7	31
69	Development and characterization of new nickel coatings for application in alkaline water electrolysis. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 36-45	6.7	30
68	Green synthesis of gold nanoparticles using Parsley leaves extract and their applications as an alternative catalytic, antioxidant, anticancer, and antibacterial agents. <i>Advanced Powder Technology</i> , 2020 , 31, 4390-4400	4.6	26
67	Hydrogen-based PEM auxiliary power unit. <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 4983-4986	6.7	25

66	Hydrogen production by proton exchange membrane water electrolysis using cobalt and iron hexachloroclathrochelates as efficient hydrogen-evolving electrocatalysts. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 27845-27850	6.7	24
65	Cobalt Clathrochelate Complexes as Hydrogen-Producing Catalysts. <i>Angewandte Chemie</i> , 2008 , 120, 10096-10098	3.6	21
64	Advances in hydride phase growth: Automatic high precision calorimeter-volumetric devices, for thermodynamic and kinetics analyses. <i>Review of Scientific Instruments</i> , 2000 , 71, 142-153	1.7	21
63	On the ability of pem water electrolyzers to provide power grid services. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 9690-9700	6.7	21
62	Development and characterisation of a pressurized PEM bi-stack electrolyser. <i>International Journal of Energy Research</i> , 2013 , 37, 449-456	4.5	20
61	Highly textured boron/nitrogen co-doped TiO ₂ with honeycomb structure showing enhanced visible-light photoelectrocatalytic activity. <i>Applied Surface Science</i> , 2020 , 505, 144419	6.7	20
60	Engineering a cobalt clathrochelate/glassy carbon interface for the hydrogen evolution reaction. <i>Applied Catalysis B: Environmental</i> , 2019 , 250, 292-300	21.8	19
59	Operando current mapping on PEM water electrolysis cells. Influence of mechanical stress. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 25848-25859	6.7	19
58	Novel nano-architected water splitting photoanodes based on TiO ₂ -nanorod mats surface sensitized by ZIF-67 coatings. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 30949-30964	6.7	18
57	Pneumatochemical impedance spectroscopy. 1. Principles. <i>Journal of Physical Chemistry B</i> , 2005 , 109, 24016-24	3.4	18
56	Characterization of Rh:SrTiO ₃ photoelectrodes surface-modified with a cobalt clathrochelate and their application to the hydrogen evolution reaction. <i>Electrochimica Acta</i> , 2017 , 258, 255-265	6.7	16
55	Hydrogen production with a designed clathrochelate-based electrocatalytic materials: Synthesis, X-ray structure and redox-properties of the iron cage complexes with pendant (poly)aryl-terminated ribbed substituents. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 27894-27909	6.7	15
54	Development and performances of a 0.5[kW high-pressure alkaline water electrolyser. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 29441-29449	6.7	15
53	Surface sensitization of TiO ₂ nanorod mats by electrodeposition of ZIF-67 for water photo-oxidation. <i>Electrochimica Acta</i> , 2020 , 339, 135882	6.7	15
52	Comparative analysis of the hydriding kinetics of LaNi ₅ , La _{0.8} Nd _{0.2} Ni ₅ and La _{0.7} Ce _{0.3} Ni ₅ compounds. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 4178-4184	6.7	15
51	Water electrolysis using EME technology: temperature profile inside a nafion membrane during electrolysis. <i>Electrochimica Acta</i> , 1991 , 36, 263-267	6.7	15
50	Experimental requirements for measuring pneumatochemical impedances. <i>Review of Scientific Instruments</i> , 2007 , 78, 123902	1.7	13
49	Kinetics of hydrogen sorption by palladium nanoparticles. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 966-972	6.7	12

48	Hydriding kinetics analysis by the frequency response method.. <i>Journal of Alloys and Compounds</i> , 2002 , 330-332, 476-482	5.7	12
47	Intermetallic hydrides: (I) investigation of the rate of phase transformation. <i>Journal of Alloys and Compounds</i> , 1995 , 231, 427-433	5.7	12
46	Hydrogen sorption by Pd77Ag23 metallic membranes. Role of hydrogen content, temperature and sample microstructure. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 4262-4269	6.7	11
45	Synthesis and characterization of Bi-doped g-C3N4 for photoelectrochemical water oxidation. <i>Solar Energy</i> , 2020 , 211, 478-487	6.8	11
44	Electrocatalytic hydrogen production using the designed hexaphenanthrene iron, cobalt and ruthenium(II) cage complexes as cathode (pre)catalysts immobilized on carbonaceous substrates. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 26206-26216	6.7	10
43	Ruthenium-based molecular compounds for oxygen evolution in acidic media. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 8590-8596	6.7	10
42	Effect of the ligand framework of cobalt clathrochelates on hydrogen evolution electrocatalysis: electrochemical, spectroscopic and Density Functional Theory analyses. <i>Electrochimica Acta</i> , 2017 , 245, 1065-1074	6.7	9
41	Immobilization of functionalized iron(II) clathrochelates with terminal (poly)aromatic group(s) on carbonaceous materials and their detailed cyclic voltammetry study. <i>Electrochimica Acta</i> , 2018 , 269, 590-609	6.7	9
40	A new approach to the kinetics of LaNi5H2(g) systems based on impedance spectroscopy analysis. <i>Journal of Alloys and Compounds</i> , 1997 , 253-254, 542-546	5.7	9
39	Water reduction into hydrogen using Rh-doped SrTiO3 photoelectrodes surface-modified by minute amounts of Pt: Insights from heterogeneous kinetic analysis. <i>Electrochimica Acta</i> , 2019 , 297, 696-704	6.7	9
38	Reduced Graphene Oxide-Supported Pt-Based Catalysts for PEM Fuel Cells with Enhanced Activity and Stability. <i>Catalysts</i> , 2021 , 11, 256	4	9
37	Hydrogen production by polymer electrolyte membrane water electrolysis 2015 , 255-286		8
36	Non-harmonic electro-chemical and pneumato-chemical impedance spectroscopies for analyzing the hydriding kinetics of palladium. <i>Electrochimica Acta</i> , 2011 , 56, 7907-7915	6.7	8
35	Pneumatochemical impedance spectroscopy. 2. Dynamics of hydrogen sorption by metals. <i>Journal of Physical Chemistry B</i> , 2005 , 109, 24025-30	3.4	8
34	(Invited) Conventional and Innovative Electrocatalysts for PEM Water Electrolysis. <i>ECS Transactions</i> , 2016 , 75, 1073-1079	1	7
33	Fe/Ni Bimetallic Organic Framework Deposited on TiO Nanotube Array for Enhancing Higher and Stable Photoelectrochemical Activity of Oxygen Evaluation Reaction. <i>Nanomaterials</i> , 2020 , 10,	5.4	7
32	Frequency-domain analysis of hydrogen permeation across Pd77Ag23 metallic membranes. <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 5003-5009	6.7	6
31	Fourier-Domain Analysis of Hydriding Kinetics Using Pneumato-Chemical Impedance Spectroscopy. <i>Research Letters in Physical Chemistry</i> , 2007 , 2007, 1-5		6

30	Metal and metal oxides based membrane composites for solid polymer electrolyte water electrolyzers. <i>Journal of Membrane Science</i> , 1991 , 61, 157-165	9.6	6
29	Preparation and Electrochemistry of Iron, Ruthenium, and Cobalt(II) Hexaphenanthrene Clathrochelates Designed for Efficient Electrocatalytic Hydrogen Production and Their Physisorption on Carbon Materials. <i>Journal of the Electrochemical Society</i> , 2019 , 166, H598-H607	3.9	5
28	Hydrogen production using high-pressure electrolyzers 2015 , 179-224		5
27	Characterization of metal hydrides using pneumato-chemical impedance spectroscopy. <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 4990-4996	6.7	5
26	Hydriding Reaction of LaNi5: Correlations between Thermodynamic States and Sorption Kinetics during Activation. <i>Research Letters in Physical Chemistry</i> , 2008 , 2008, 1-4		5
25	Fundamentals of Water Electrolysis 2015 , 33-62		4
24	PEM Water Electrolysis 2015 , 63-116		4
23	Derivation of the diffusion impedance of multi-layer cylinders. Application to the electrochemical permeation of hydrogen through Pd and PdAg hollow cylinders. <i>Electrochimica Acta</i> , 2014 , 131, 52-59	6.7	4
22	A comparative evaluation of palladium and platinum nanoparticles as catalysts in proton exchange membrane electrochemical cells. <i>International Journal of Nuclear Hydrogen Production and Applications</i> , 2008 , 1, 343		4
21	A comparison of water photo-oxidation and photo-reduction using photoelectrodes surface-modified by deposition of co-catalysts: Insights from photo-electrochemical impedance spectroscopy. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 9970-9977	6.7	4
20	One-pot synthesis of TiO ₂ /Sb ₂ S ₃ /RGO complex multicomponent heterostructures for highly enhanced photoelectrochemical water splitting. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 31216-31227	6.7	4
19	PEC water splitting using mats of calcined TiO ₂ rutile nanorods photosensitized by a thin layer of Ni-benzene dicarboxylic acid MOF. <i>Electrochimica Acta</i> , 2021 , 393, 139014	6.7	4
18	Polyaromatic-terminated iron(ii) clathrochelates as electrocatalysts for efficient hydrogen production in water electrolysis cells with polymer electrolyte membrane. <i>Mendeleev Communications</i> , 2021 , 31, 20-23	1.9	4
17	Electrocatalytic properties of {Mo ₃ S ₄ } ⁻ -based complexes with regard to the hydrogen evolution reaction and application to PEM water electrolysis. <i>Materials Advances</i> , 2020 , 1, 430-440	3.3	3
16	Spectrophotometrical Study of the Physisorption of Iron(II) Clathrochelates Containing Terminal Phenanthrenyl Group(s) on Carbon Paper. <i>Macroheterocycles</i> , 2018 , 11, 449-453	2.2	3
15	Approach to the Mechanism of Hydrogen Evolution Electrocatalyzed by a Model Co Clathrochelate: A Theoretical Study by Density Functional Theory. <i>ChemPhysChem</i> , 2018 , 19, 2549-2558	3.2	2
14	The Individual Proton-Exchange Membrane Cell and Proton-Exchange Membrane Stack 2018 , 75-115		2
13	Dynamics of hydrogen permeation across metallic membranes. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 8584-8589	6.7	2

12	Water Electrolysis for Hydrogen Generation 2012 , 383-423		2
11	Water Photo-Electrooxidation Using Mats of TiO ₂ Nanorods, Surface Sensitized by a MetalOrganic Framework of Nickel and 1,2-Benzene Dicarboxylic Acid. <i>Hydrogen</i> , 2021 , 2, 58-75	1.8	2
10	Performance Degradation 2018 , 61-94		1
9	Key Performance Indicators 2018 , 33-60		1
8	Effect of morphology and non-metal doping (P and S) on the activity of graphitic carbon nitride toward photoelectrochemical water oxidation. <i>Solar Energy Materials and Solar Cells</i> , 2021 , 232, 111326	6.4	1
7	Implementation of a TiO ₂ /N719-Dye Photo-Anode in a DSSC and Performance Analysis. <i>Russian Journal of Electrochemistry</i> , 2020 , 56, 929-937	1.2	0
6	Outlook and Summary 2015 , 383-394		
5	Hydrogen Compression, Purification, and Storage 2012 , 425-462		
4	Membrane Electrolysis 2013 , 1		
3	Membrane electrolyzers for hydrogen (H ₂) production 2011 , 568-609		
2	Fundamentals of water electrolysis 2022 , 37-62		
1	Alkaline Electrolyzers 2021 ,		