Pierre Millet

List of Publications by Year in Descending Order

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	Fundamentals of water electrolysis **2022**, 37-62		
100	Alkaline Electrolysers **2021**,		
99	Reduced Graphene Oxide-Supported Pt-Based Catalysts for PEM Fuel Cells with Enhanced Activity and Stability. *Catalysts*, **2021**, 11, 256	4	9
98	One-pot synthesis of TiO2/Sb2S3/RGO complex multicomponent heterostructures for highly enhanced photoelectrochemical water splitting. *International Journal of Hydrogen Energy*, **2021**, 46, 31216-31227	6.7	4
97	Effect of morphology and non-metal doping (P and S) on the activity of graphitic carbon nitride toward photoelectrochemical water oxidation. *Solar Energy Materials and Solar Cells*, **2021**, 232, 111326	6.4	1
96	PEC water splitting using mats of calcined TiO2 rutile nanorods photosensitized by a thin layer of Ni-benzene dicarboxylic acid MOF. *Electrochimica Acta*, **2021**, 393, 139014	6.7	4
95	Polyaromatic-terminated iron(ii) clathrochelates as electrocatalysts for efficient hydrogen production in water electrolysis cells with polymer electrolyte membrane. *Mendeleev Communications*, **2021**, 31, 20-23	1.9	4
94	Water Photo-Electrooxidation Using Mats of TiO2 Nanorods, Surface Sensitized by a Metal□Organic Framework of Nickel and 1,2-Benzene Dicarboxylic Acid. *Hydrogen*, **2021**, 2, 58-75	1.8	2
93	Implementation of a TiO2/N719-Dye Photo-Anode in a DSSC and Performance Analysis. *Russian Journal of Electrochemistry*, **2020**, 56, 929-937	1.2	0
92	Electrocatalytic properties of {Mo3S4}-based complexes with regard to the hydrogen evolution reaction and application to PEM water electrolysis. *Materials Advances*, **2020**, 1, 430-440	3.3	3
91	Electrocatalytic hydrogen production using the designed hexaphenanthrene iron, cobalt and ruthenium(II) cage complexes as cathode (pre)catalysts immobilized on carbonaceous substrates. *International Journal of Hydrogen Energy*, **2020**, 45, 26206-26216	6.7	10
90	Surface sensitization of TiO2 nanorod mats by electrodeposition of ZIF-67 for water photo-oxidation. *Electrochimica Acta*, **2020**, 339, 135882	6.7	15
89	A critical review on the definitions used to calculate the energy efficiency coefficients of water electrolysis cells working under near ambient temperature conditions. *Journal of Power Sources*, **2020**, 447, 227350	8.9	37
88	Highly textured boron/nitrogen co-doped TiO2 with honeycomb structure showing enhanced visible-light photoelectrocatalytic activity. *Applied Surface Science*, **2020**, 505, 144419	6.7	20
87	Synthesis and characterization of Bi-doped g-C3N4 for photoelectrochemical water oxidation. *Solar Energy*, **2020**, 211, 478-487	6.8	11
86	Green synthesis of gold nanoparticles using Parsley leaves extract and their applications as an alternative catalytic, antioxidant, anticancer, and antibacterial agents. *Advanced Powder Technology* , **2020**, 31, 4390-4400	4.6	26
85	Fe/Ni Bimetallic Organic Framework Deposited on TiO Nanotube Array for Enhancing Higher and Stable Photoelectrochemical Activity of Oxygen Evaluation Reaction. *Nanomaterials*, **2020**, 10,	5.4	7

84	Current status, research trends, and challenges in water electrolysis science and technology. *International Journal of Hydrogen Energy*, **2020**, 45, 26036-26058	6.7	128
83	Preparation and Electrochemistry of Iron, Ruthenium, and Cobalt(II) Hexaphenanthrene Clathrochelates Designed for Efficient Electrocatalytic Hydrogen Production and Their Physisorption on Carbon Materials. *Journal of the Electrochemical Society*, **2019**, 166, H598-H607	3.9	5
82	Development and performances of a 0.5 kW high-pressure alkaline water electrolyser. *International Journal of Hydrogen Energy*, **2019**, 44, 29441-29449	6.7	15
81	Engineering a cobalt clathrochelate/glassy carbon interface for the hydrogen evolution reaction. *Applied Catalysis B: Environmental*, **2019**, 250, 292-300	21.8	19
80	Novel nano-architectured water splitting photoanodes based on TiO2-nanorod mats surface sensitized by ZIF-67 coatings. *International Journal of Hydrogen Energy*, **2019**, 44, 30949-30964	6.7	18
79	Water reduction into hydrogen using Rh-doped SrTiO3 photoelectrodes surface-modified by minute amounts of Pt: Insights from heterogeneous kinetic analysis. *Electrochimica Acta*, **2019**, 297, 696-704	6.7	9
78	A comparison of water photo-oxidation and photo-reduction using photoelectrodes surface-modified by deposition of co-catalysts: Insights from photo-electrochemical impedance spectroscopy. *International Journal of Hydrogen Energy*, **2019**, 44, 9970-9977	6.7	4
77	On the ability of pem water electrolysers to provide power grid services. *International Journal of Hydrogen Energy*, **2019**, 44, 9690-9700	6.7	21
76	An analysis of PEM water electrolysis cells operating at elevated current densities. *International Journal of Hydrogen Energy*, **2019**, 44, 9708-9717	6.7	46
75	The role of surface states during photocurrent switching: Intensity modulated photocurrent spectroscopy analysis of BiVO4 photoelectrodes. *Applied Catalysis B: Environmental*, **2018**, 237, 401-408	21.8	45
74	Immobilization of functionalized iron(II) clathrochelates with terminal (poly)aromatic group(s) on carbonaceous materials and their detailed cyclic voltammetry study. *Electrochimica Acta*, **2018**, 269, 590-609	6.7	9
73	Approach to the Mechanism of Hydrogen Evolution Electrocatalyzed by a Model Co Clathrochelate: A Theoretical Study by Density Functional Theory. *ChemPhysChem*, **2018**, 19, 2549-2558	3.2	2
72	The Individual Proton-Exchange Membrane Cell and Proton-Exchange Membrane Stack **2018**, 75-115		2
71	Spectrophotometrical Study of the Physisorption of Iron(II) Clathrochelates Containing Terminal Phenanthrenyl Group(s) on Carbon Paper. *Macroheterocycles*, **2018**, 11, 449-453	2.2	3
70	Performance Degradation **2018**, 61-94		1
69	Key Performance Indicators **2018**, 33-60		1
68	Effect of the ligand framework of cobalt clathrochelates on hydrogen evolution electrocatalysis: electrochemical, spectroscopic and Density Functional Theory analyses. *Electrochimica Acta*, **2017**, 245, 1065-1074	6.7	9
67	Hydrogen production by proton exchange membrane water electrolysis using cobalt and iron hexachloroclathrochelates as efficient hydrogen-evolving electrocatalysts. *International Journal of Hydrogen Energy*, **2017**, 42, 27845-27850	6.7	24

66	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. *International Journal of Hydrogen Energy*, **2017**, 42, 27894-27909	6.7	15
65	Characterization of Rh:SrTiO3 photoelectrodes surface-modified with a cobalt clathrochelate and their application to the hydrogen evolution reaction. *Electrochimica Acta*, **2017**, 258, 255-265	6.7	16
64	Operando current mapping on PEM water electrolysis cells. Influence of mechanical stress. *International Journal of Hydrogen Energy*, **2017**, 42, 25848-25859	6.7	19
63	Influence of iridium oxide loadings on the performance of PEM water electrolysis cells: Part II Advanced oxygen electrodes. *Applied Catalysis B: Environmental*, **2016**, 182, 123-131	21.8	75
62	(Invited) Conventional and Innovative Electrocatalysts for PEM Water Electrolysis. *ECS Transactions*, **2016**, 75, 1073-1079	1	7
61	Development and characterization of new nickel coatings for application in alkaline water electrolysis. *International Journal of Hydrogen Energy*, **2016**, 41, 36-45	6.7	30
60	Influence of iridium oxide loadings on the performance of PEM water electrolysis cells: Part IPure IrO 2 -based anodes. *Applied Catalysis B: Environmental*, **2016**, 182, 153-160	21.8	109
59	Hydrogen production using high-pressure electrolyzers **2015**, 179-224		5
58	Hydrogen production by polymer electrolyte membrane water electrolysis **2015**, 255-286		8
57	Fundamentals of Water Electrolysis **2015**, 33-62		4
56	PEM Water Electrolysis **2015**, 63-116		4
55	Outlook and Summary **2015**, 383-394		
54	Electrochemical characterization of Polymer Electrolyte Membrane Water Electrolysis Cells. *Electrochimica Acta*, **2014**, 131, 160-167	6.7	74
53	Derivation of the diffusion impedance of multi-layer cylinders. Application to the electrochemical permeation of hydrogen through Pd and PdAg hollow cylinders. *Electrochimica Acta*, **2014**, 131, 52-59	6.7	4
52	Failure of PEM water electrolysis cells: Case study involving anode dissolution and membrane thinning. *International Journal of Hydrogen Energy*, **2014**, 39, 20440-20446	6.7	67
51	Development and characterisation of a pressurized PEM bi-stack electrolyser. *International Journal of Energy Research*, **2013**, 37, 449-456	4.5	20
50	Ruthenium-based molecular compounds for oxygen evolution in acidic media. *International Journal of Hydrogen Energy*, **2013**, 38, 8590-8596	6.7	10
49	Plasma-assisted Pt and PtPd nano-particles deposition on carbon carriers for application in PEM electrochemical cells. *International Journal of Hydrogen Energy*, **2013**, 38, 8568-8574	6.7	31

48	Kinetics of hydrogen sorption by palladium nanoparticles. *International Journal of Hydrogen Energy*, **2013**, 38, 966-972	6.7	12
47	Dynamics of hydrogen permeation across metallic membranes. *International Journal of Hydrogen Energy*, **2013**, 38, 8584-8589	6.7	2
46	Water Electrolysis Technologies **2013**, 19-41		45
45	Characterization of carbon-supported platinum nano-particles synthesized using magnetron sputtering for application in PEM electrochemical systems. *International Journal of Hydrogen Energy* , **2013**, 38, 426-430	6.7	31
44	Membrane Electrolysis **2013**, 1		
43	Implementing molecular catalysts for hydrogen production in proton exchange membrane water electrolysers. *Coordination Chemistry Reviews*, **2012**, 256, 2435-2444	23.2	44
42	Water Electrolysis for Hydrogen Generation **2012**, 383-423		2
41	Hydrogen Compression, Purification, and Storage **2012**, 425-462		
40	Cell failure mechanisms in PEM water electrolyzers. *International Journal of Hydrogen Energy*, **2012**, 37, 17478-17487	6.7	57
39	Non-harmonic electro-chemical and pneumato-chemical impedance spectroscopies for analyzing the hydriding kinetics of palladium. *Electrochimica Acta*, **2011**, 56, 7907-7915	6.7	8
38	High-pressure PEM water electrolysis and corresponding safety issues. *International Journal of Hydrogen Energy*, **2011**, 36, 2721-2728	6.7	128
37	Electrochemical performances of PEM water electrolysis cells and perspectives. *International Journal of Hydrogen Energy*, **2011**, 36, 4134-4142	6.7	237
36	Scientific and engineering issues related to PEM technology: Water electrolysers, fuel cells and unitized regenerative systems. *International Journal of Hydrogen Energy*, **2011**, 36, 4156-4163	6.7	84
35	Comparative analysis of the hydriding kinetics of LaNi5, La0.8Nd0.2Ni5 and La0.7Ce0.3Ni5 compounds. *International Journal of Hydrogen Energy*, **2011**, 36, 4178-4184	6.7	15
34	Hydrogen sorption by Pd77Ag23 metallic membranes. Role of hydrogen content, temperature and sample microstructure. *International Journal of Hydrogen Energy*, **2011**, 36, 4262-4269	6.7	11
33	Description and characterization of an electrochemical hydrogen compressor/concentrator based on solid polymer electrolyte technology. *International Journal of Hydrogen Energy*, **2011**, 36, 4148-4155	6.7	73
32	Platinum and palladium nano-particles supported by graphitic nano-fibers as catalysts for PEM water electrolysis. *International Journal of Hydrogen Energy*, **2011**, 36, 4143-4147	6.7	52
31	Membrane electrolysers for hydrogen (H 2) production **2011**, 568-609		

30	Design and characterization of bi-functional electrocatalytic layers for application in PEM unitized regenerative fuel cells. *International Journal of Hydrogen Energy*, **2010**, 35, 5070-5076	6.7	66
29	Time and frequency domain analysis of hydrogen permeation across PdCu metallic membranes for hydrogen purification. *International Journal of Hydrogen Energy*, **2010**, 35, 4883-4892	6.7	32
28	PEM water electrolyzers: From electrocatalysis to stack development. *International Journal of Hydrogen Energy*, **2010**, 35, 5043-5052	6.7	247
27	Optimization of porous current collectors for PEM water electrolysers. *International Journal of Hydrogen Energy*, **2009**, 34, 4968-4973	6.7	185
26	Characterization of metal hydrides using pneumato-chemical impedance spectroscopy. *International Journal of Hydrogen Energy*, **2009**, 34, 4990-4996	6.7	5
25	GenHyPEM: A research program on PEM water electrolysis supported by the European Commission. *International Journal of Hydrogen Energy*, **2009**, 34, 4974-4982	6.7	93
24	Hydrogen-based PEM auxiliary power unit. *International Journal of Hydrogen Energy*, **2009**, 34, 4983-4988	6.7	25
23	Frequency-domain analysis of hydrogen permeation across Pd77Ag23 metallic membranes. *International Journal of Hydrogen Energy*, **2009**, 34, 5003-5009	6.7	6
22	Hydrogen safety aspects related to high-pressure polymer electrolyte membrane water electrolysis. *International Journal of Hydrogen Energy*, **2009**, 34, 5986-5991	6.7	123
21	Hydriding Reaction of LaNi5: Correlations between Thermodynamic States and Sorption Kinetics during Activation. *Research Letters in Physical Chemistry*, **2008**, 2008, 1-4		5
20	A comparative evaluation of palladium and platinum nanoparticles as catalysts in proton exchange membrane electrochemical cells. *International Journal of Nuclear Hydrogen Production and Applications*, **2008**, 1, 343		4
19	Cobalt clathrochelate complexes as hydrogen-producing catalysts. *Angewandte Chemie - International Edition*, **2008**, 47, 9948-50	16.4	106
18	Cobalt Clathrochelate Complexes as Hydrogen-Producing Catalysts. *Angewandte Chemie*, **2008**, 120, 10096-10098	3.6	21
17	Evaluation of carbon-supported Pt and Pd nanoparticles for the hydrogen evolution reaction in PEM water electrolysers. *Journal of Power Sources*, **2008**, 177, 281-285	8.9	243
16	Fourier-Domain Analysis of Hydriding Kinetics Using Pneumato-Chemical Impedance Spectroscopy. *Research Letters in Physical Chemistry*, **2007**, 2007, 1-5		6
15	Electroactivity of cobalt and nickel glyoximes with regard to the electro-reduction of protons into molecular hydrogen in acidic media. *Electrochemistry Communications*, **2007**, 9, 54-58	5.1	121
14	Experimental requirements for measuring pneumatochemical impedances. *Review of Scientific Instruments*, **2007**, 78, 123902	1.7	13
13	Pneumatochemical impedance spectroscopy. 2. Dynamics of hydrogen sorption by metals. *Journal of Physical Chemistry B*, **2005**, 109, 24025-30	3.4	8

12	Pneumatochemical impedance spectroscopy. 1. Principles. *Journal of Physical Chemistry B*, **2005**, 109, 24016-24	3.4	18
11	Hydriding kinetics analysis by the frequency response method.. *Journal of Alloys and Compounds*, **2002**, 330-332, 476-482	5.7	12
10	Advances in hydride phase growth: Automatic high precision calorimeter-volumetric devices, for thermodynamic and kinetics analyses. *Review of Scientific Instruments*, **2000**, 71, 142-153	1.7	21
9	A new approach to the kinetics of LaNi5H2(g) systems based on impedance spectroscopy analysis. *Journal of Alloys and Compounds*, **1997**, 253-254, 542-546	5.7	9
8	Design and performance of a solid polymer electrolyte water electrolyzer. *International Journal of Hydrogen Energy*, **1996**, 21, 87-93	6.7	204
7	Intermetallic hydrides: (I) investigation of the rate of phase transformation. *Journal of Alloys and Compounds*, **1995**, 231, 427-433	5.7	12
6	Solid polymer electrolyte water electrolysis: electrocatalysis and long-term stability. *International Journal of Hydrogen Energy*, **1994**, 19, 421-427	6.7	74
5	Characterization of membrane-electrode assemblies for solid polymer electrolyte water electrolysis. *Journal of Applied Electrochemistry*, **1993**, 23, 322-331	2.6	52
4	Metal and metal oxides based membrane composites for solid polymer electrolyte water electrolysers. *Journal of Membrane Science*, **1991**, 61, 157-165	9.6	6
3	Water electrolysis using EME technology: temperature profile inside a nafion membrane during electrolysis. *Electrochimica Acta*, **1991**, 36, 263-267	6.7	15
2	Preparation of new solid polymer electrolyte composites for water electrolysis. *International Journal of Hydrogen Energy*, **1990**, 15, 245-253	6.7	60
1	New solid polymer electrolyte composites for water electrolysis. *Journal of Applied Electrochemistry*, **1989**, 19, 162-166	2.6	135