

# Jean-Michel Ec Leger

## List of Publications by Year in descending order

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110  
papers

9,673  
citations

38660

50  
h-index

35952

97  
g-index

114  
all docs

114  
docs citations

114  
times ranked

6039  
citing authors

#	ARTICLE	IF	CITATIONS
1	Temperature-dependence of oxygen reduction activity on Pt/C and PtCr/C electrocatalysts synthesized from microwave-heated diethylene glycol method. <i>Applied Catalysis B: Environmental</i> , 2017, 203, 72-84.	10.8	35
2	Comparison of oxygen reduction reaction on Pt/C, Pt-Sn/C, Pt-Ni/C, and Pt-Sn-Ni/C catalysts prepared by BÄ¶nnemann method: A rotating ring disk electrode study. <i>Electrochimica Acta</i> , 2015, 151, 565-573.	2.6	55
3	In situ FTIR investigation of acetic acid electrooxidation on carbon supported Ptâ€“Sn based trimetallic catalysts: Influence of the nature of the third metal. <i>Applied Surface Science</i> , 2014, 321, 426-431.	3.1	19
4	Understanding the influence of Ni, Co, Rh and Pd addition to PtSn/C catalyst for the oxidation of ethanol by in situ Fourier transform infrared spectroscopy. <i>Applied Catalysis B: Environmental</i> , 2014, 144, 66-74.	10.8	57
5	A methanol â€“ Tolerant carbon supported Ptâ€“Sn cathode catalysts. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 9070-9079.	3.8	18
6	Adsorption and oxidation of acetaldehyde on carbon supported Pt, PtSn and PtSn-based trimetallic catalysts by in situ Fourier transform infrared spectroscopy. <i>Journal of Power Sources</i> , 2013, 242, 503-509.	4.0	12
7	Hydrogenotitanates nanotubes supported platinum anode for direct methanol fuel cell. <i>Journal of Power Sources</i> , 2013, 241, 429-439.	4.0	17
8	Pronounced synergetic effect of the nano-sized PtSnNi/C catalyst for ethanol oxidation in direct ethanol fuel cell. <i>Applied Catalysis B: Environmental</i> , 2013, 130-131, 305-313.	10.8	65
9	Promising anode candidates for direct ethanol fuel cell: Carbon supported PtSn-based trimetallic catalysts prepared by BÄ¶nnemann method. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 6830-6841.	3.8	88
10	Direct ethanol fuel cell: Electrochemical performance at 90Â°C on Pt and PtSn/C electrocatalysts. <i>Journal of Power Sources</i> , 2012, 198, 95-99.	4.0	49
11	Insights into the Effects of Functional Groups on Carbon Nanotubes for the Electrooxidation of Methanol. <i>Langmuir</i> , 2011, 27, 9621-9629.	1.6	28
12	Effect of the Cleaning Step on the Morphology of Gold Nanoparticles. <i>Electrocatalysis</i> , 2011, 2, 24-27.	1.5	7
13	An FTIR study of Rh-PtSn/C catalysts for ethanol electrooxidation: Effect of surface composition. <i>Applied Catalysis B: Environmental</i> , 2011, 106, 520-528.	10.8	43
14	Preparation and characterization of Pt/TiO <sub>2</sub> nanotubes catalyst for methanol electro-oxidation. <i>Applied Catalysis B: Environmental</i> , 2011, 106, 609-615.	10.8	87
15	Electroreduction of carbon dioxide at a lead electrode in propylene carbonate: A spectroscopic study. <i>Applied Catalysis B: Environmental</i> , 2010, 98, 65-71.	10.8	49
16	Optimization of a surfactant free polyol method for the synthesis of platinumâ€“cobalt electrocatalysts using Taguchi design of experiments. <i>Journal of Power Sources</i> , 2010, 195, 1569-1576.	4.0	30
17	FTIR spectroscopy study of the reduction of carbon dioxide on lead electrode in aqueous medium. <i>Applied Catalysis B: Environmental</i> , 2010, 94, 219-224.	10.8	82
18	Electro-reduction of carbon dioxide to formate on lead electrode in aqueous medium. <i>Journal of Applied Electrochemistry</i> , 2009, 39, 227-232.	1.5	172

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19	Effects of Temperature and Atmosphere on Carbon-Supported Platinum Fuel Cell Catalysts. Journal of Physical Chemistry C, 2009, 113, 21735-21744.	1.5	33
20	Modeling and simulation of the anode in direct ethanol fuels cells. Journal of Power Sources, 2008, 180, 283-293.	4.0	29
21	Application of Ti/RuO <sub>2</sub> /Ta <sub>2</sub> O <sub>5</sub> electrodes in the electrooxidation of ethanol and derivants: Reactivity versus electrocatalytic efficiency. Electrochimica Acta, 2008, 53, 7845-7851.	2.6	27
22	Effect of W on PtSn/C catalysts for ethanol electrooxidation. Journal of Applied Electrochemistry, 2008, 38, 653-662.	1.5	74
23	Polyoxymethylenedimethylether (CH <sub>3</sub> O(CH <sub>2</sub> O) <sub>n</sub> CH <sub>3</sub> ) oxidation on Pt and Pt/Ru supported catalysts. Journal of Power Sources, 2008, 175, 82-90.	4.0	21
24	New findings on CO electrooxidation at platinum nanoparticle surfaces. Electrochemistry Communications, 2008, 10, 1703-1707.	2.3	64
25	Study of the oxygen electroreduction at nanostructured PtBi catalysts in alkaline medium. Electrochimica Acta, 2008, 53, 3232-3241.	2.6	43
26	Dimethoxymethane electrooxidation on low index planes of platinum single crystal in acid media. Electrochimica Acta, 2008, 54, 394-402.	2.6	4
27	Review of different methods for developing nanoelectrocatalysts for the oxidation of organic compounds. Electrochimica Acta, 2008, 53, 6865-6880.	2.6	151
28	Effect of potential cycling on structure and activity of Pt nanoparticles dispersed on different carbon supports. Electrochimica Acta, 2008, 53, 7157-7165.	2.6	66
29	Ethanol electrooxidation on Pt-Sn and Pt-Sn-W bulk alloys. Journal of the Brazilian Chemical Society, 2008, 19, 795-802.	0.6	31
30	Etude de l'electrooxydation et de l'adsorption du 1,3-propanediol sur des electrodes de platine et d'or en milieux aqueux. Annales De Chimie: Science Des Materiaux, 2008, 33, 397-421.	0.2	4
31	Contribution of In-situ Infrared Reflectance Spectroscopy in the Study of Nanostructured Fuel Cell Electrodes. , 2007, , 63-98.		5
32	Selective Oxidation of Unprotected Carbohydrates to Aldehyde Analogues by Using TEMPO Salts. European Journal of Organic Chemistry, 2007, 2007, 1567-1570.	1.2	29
33	In situ Fourier transformed infrared reflectance spectroscopy study of the effect of poly-pDMB film modified platinum electrodes on the electrooxidation of formic acid. Thin Solid Films, 2007, 515, 3611-3618.	0.8	7
34	Direct chemical deposition of platinum on ionic conductive membranes and evaluation of the electrocatalytic activity. Electrochemistry Communications, 2007, 9, 1097-1101.	2.3	12
35	Carbon-supported ternary PtSnIr catalysts for direct ethanol fuel cell. Electrochimica Acta, 2007, 52, 6997-7006.	2.6	158
36	Electroactivity of tin modified platinum electrodes for ethanol electrooxidation. Journal of Power Sources, 2007, 167, 1-10.	4.0	161

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37	In situ FTIRS studies of the electrocatalytic oxidation of ethanol on Pt alloy electrodes. Journal of Solid State Electrochemistry, 2007, 11, 1567-1573.	1.2	24
38	An in situ infrared reflectance spectroscopic study of 1,2-propanediol electrocatalytic oxidation on platinum and gold. Annales De Chimie: Science Des Materiaux, 2007, 32, 19-36.	0.2	1
39	Methoxy methane (dimethyl ether) as an alternative fuel for direct fuel cells. Journal of Power Sources, 2006, 157, 318-324.	4.0	63
40	Direct ethanol fuel cell (DEFC): Electrical performances and reaction products distribution under operating conditions with different platinum-based anodes. Journal of Power Sources, 2006, 158, 18-24.	4.0	446
41	Development of electrocatalysts for solid alkaline fuel cell (SAFC). Journal of Power Sources, 2006, 156, 14-19.	4.0	204
42	Application of Pt+RuO <sub>2</sub> catalysts prepared by thermal decomposition of polymeric precursors to DMFC. Journal of Power Sources, 2006, 158, 1195-1201.	4.0	44
43	Development of materials for mini DMFC working at room temperature for portable applications. Journal of Power Sources, 2006, 160, 334-339.	4.0	60
44	Structure of Pt/C and PtRu/C catalytic layers prepared by plasma sputtering and electric performance in direct methanol fuel cells (DMFC). Journal of Power Sources, 2006, 162, 66-73.	4.0	78
45	Electrocatalysis for the direct alcohol fuel cell. Topics in Catalysis, 2006, 40, 111-121.	1.3	237
46	Electrocatalytic oxidation of monosaccharides on platinum electrodes modified by thallium adatoms in carbonate buffered medium. Journal of Applied Electrochemistry, 2006, 36, 233-238.	1.5	9
47	Mechanism of di(methyl)ether (DME) electrooxidation at platinum electrodes in acid medium. Journal of Applied Electrochemistry, 2006, 36, 441-448.	1.5	39
48	Electrooxidation of benzyl alcohol and benzaldehyde on a nickel oxy-hydroxide electrode in a filter-press type cell. Journal of Applied Electrochemistry, 2006, 36, 1035-1041.	1.5	20
49	Electrocatalytic oxidation of ethanol on Pt-Mo bimetallic electrodes in acid medium. Journal of Applied Electrochemistry, 2006, 36, 1391-1397.	1.5	59
50	Determination of the physicochemical characteristics and electrical performance of postsulfonated and grafted sulfonated derivatives of poly(para-phenylene) as new proton-conducting membranes for direct methanol fuel cell. Journal of Applied Polymer Science, 2006, 101, 944-952.	1.3	11
51	Methanol tolerant oxygen reduction on carbon-supported Pt-Ni alloy nanoparticles. Journal of Electroanalytical Chemistry, 2005, 576, 305-313.	1.9	203
52	Preparation and activity of mono- or bi-metallic nanoparticles for electrocatalytic reactions. Electrochimica Acta, 2005, 50, 3123-3129.	2.6	69
53	Selective electro-oxidation of d-glucose by RuCl <sub>2</sub> (azpy) <sub>2</sub> complexes as electrochemical mediators. Electrochimica Acta, 2005, 50, 3341-3346.	2.6	27
54	Synthesis, characterization and electrocatalytic behaviour of non-alloyed PtCr methanol tolerant nanoelectrocatalysts for the oxygen reduction reaction (ORR). Electrochimica Acta, 2005, 50, 4117-4127.	2.6	110

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55	How bimetallic electrocatalysts does work for reactions involved in fuel cells?. <i>Electrochimica Acta</i> , 2005, 50, 5118-5125.	2.6	266
56	Alternative cathodes based on iron phthalocyanine catalysts for mini- or micro-DMFC working at room temperature. <i>Electrochimica Acta</i> , 2005, 51, 517-525.	2.6	40
57	Preparation of Pt-Ru bimetallic anodes by galvanostatic pulse electrodeposition: characterization and application to the direct methanol fuel cell. <i>Journal of Applied Electrochemistry</i> , 2004, 34, 61-66.	1.5	104
58	Oxidation of Methanol on Pt, Pt-Ru, and Pt-Ru-Mo Electrocatalysts Dispersed in Polyaniline: An in situ Infrared Reflectance Spectroscopy Study. <i>Russian Journal of Electrochemistry</i> , 2004, 40, 326-336.	0.3	21
59	Sulfonated derivatives of polyparaphenylene as proton conducting membranes for direct methanol fuel cell application. <i>Journal of Applied Electrochemistry</i> , 2004, 34, 1159-1170.	1.5	35
60	Recent progress in the direct ethanol fuel cell: development of new platinum-tin electrocatalysts. <i>Electrochimica Acta</i> , 2004, 49, 3901-3908.	2.6	577
61	Electroreduction of dioxygen (ORR) in alkaline medium on Ag/C and Pt/C nanostructured catalysts—effect of the presence of methanol. <i>Electrochimica Acta</i> , 2004, 49, 4513-4521.	2.6	228
62	Tailoring, Structure, and Activity of Carbon-Supported Nanosized Pt-Cr Alloy Electrocatalysts for Oxygen Reduction in Pure and Methanol-Containing Electrolytes. <i>Journal of Physical Chemistry B</i> , 2004, 108, 1938-1947.	1.2	244
63	Title is missing!. <i>Journal of Applied Electrochemistry</i> , 2003, 33, 419-429.	1.5	150
64	Title is missing!. <i>Journal of Applied Electrochemistry</i> , 2003, 33, 1-8.	1.5	50
65	Characterization of Differently Synthesized Pt-Ru Fuel Cell Catalysts by Cyclic Voltammetry, FTIR Spectroscopy, and in Single Cells. <i>Journal of the Electrochemical Society</i> , 2002, 149, E433.	1.3	71
66	Direct Methanol Fuel Cells: From a Twentieth Century Electrochemist's Dream to a Twenty-first Century Emerging Technology. , 2002, , 53-118.		53
67	Recent advances in the development of direct alcohol fuel cells (DAFC). <i>Journal of Power Sources</i> , 2002, 105, 283-296.	4.0	961
68	Oxygen electroreduction on carbon-supported platinum catalysts. Particle-size effect on the tolerance to methanol competition. <i>Electrochimica Acta</i> , 2002, 47, 3431-3440.	2.6	196
69	Investigation of Ternary Catalysts for Methanol Electrooxidation. <i>Journal of Applied Electrochemistry</i> , 2001, 31, 379-386.	1.5	227
70	Title is missing!. <i>Journal of Applied Electrochemistry</i> , 2001, 31, 799-809.	1.5	565
71	Mechanistic aspects of methanol oxidation on platinum-based electrocatalysts. <i>Journal of Applied Electrochemistry</i> , 2001, 31, 767-771.	1.5	172
72	Electrochemical and spontaneous deposition of ruthenium at platinum electrodes for methanol oxidation: an electrochemical quartz crystal microbalance study. <i>Electrochimica Acta</i> , 2001, 46, 4331-4337.	2.6	60

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73	Effect of a Thermal Treatment on the Activity of Carbon-Supported Pt, Pt+W and Pt+Mo Electrocatalysts for Methanol Oxidation Reactions. Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences, 2001, 56, 1306-1314.	0.3	1
74	The oxidation of formaldehyde on high overvoltage DSA type electrodes. Journal of the Brazilian Chemical Society, 2000, 11, 16-21.	0.6	32
75	In Situ Infrared Study of Carbon Monoxide Adsorbed onto Commercial Fuel-Cell-Grade Carbon-Supported Platinum Nanoparticles: A Correlation with $^{13}\text{C}$ NMR Results. Journal of Physical Chemistry B, 2000, 104, 5803-5807.	1.2	75
76	Platinum electrodeposition on graphite: electrochemical study and STM imaging. Electrochimica Acta, 1999, 44, 1805-1816.	2.6	145
77	Selective electrocatalytic oxidation of 2,5-dihydroxymethylfuran in aqueous medium: a chromatographic analysis of the reaction products. Electrochimica Acta, 1999, 44, 2779-2787.	2.6	11
78	Title is missing!. Journal of Applied Electrochemistry, 1999, 29, 101-107.	1.5	27
79	Title is missing!. Journal of Applied Electrochemistry, 1999, 29, 1249-1254.	1.5	134
80	Électrooxydation du méthosorbythritol sur platine, modifié ou non par des adatoms, en milieu acide. Journal De Chimie Physique Et De Physico-Chimie Biologique, 1999, 96, 510-521.	0.2	1
81	Electrocatalytic oxidation of hydrogen at platinum-modified polyaniline electrodes. Electrochimica Acta, 1998, 43, 2447-2457.	2.6	150
82	Investigation of the vibrational properties of OCN- on a silver electrode by in situ synchrotron far infrared spectroscopy and visible infrared sum frequency generation spectroscopy. Journal of the Chemical Society, Faraday Transactions, 1998, 94, 1309-1313.	1.7	16
83	A Study of the Underpotential Deposition of Lead on Gold by UV-Visible Differential Reflectance Spectroscopy. Journal of the Brazilian Chemical Society, 1998, 9, 31-38.	0.6	10
84	The electrooxidation of formaldehyde on Pt(100) and Pt(110) electrodes in perchloric acid solutions. Electrochimica Acta, 1996, 41, 927-932.	2.6	48
85	Electrocatalytic oxidation of propargyl alcohol at platinum electrodes in acid medium: A kinetic study. Electrochimica Acta, 1996, 41, 1533-1540.	2.6	9
86	An electrochemical quartz crystal microbalance investigation of the adsorption and oxidation of CO on a platinum electrode. Electrochimica Acta, 1996, 41, 2721-2730.	2.6	33
87	Conducting polymer electrodes modified by metal tetrasulfonated phthalocyanines: Preparation and electrocatalytic behaviour towards dioxygen reduction in acid medium. Electrochimica Acta, 1995, 40, 2739-2748.	2.6	75
88	A kinetic analysis of the electro-oxidation of ethanol at a platinum electrode in acid medium. Electrochimica Acta, 1994, 39, 407-415.	2.6	259
89	Investigation of iron phthalocyanine modified polypyrrole electrodes by in situ visible differential reflectance spectroscopy. Electrochimica Acta, 1994, 39, 889-898.	2.6	16
90	Kinetics and mechanisms of the electrocatalytic oxidation of glycerol as investigated by chromatographic analysis of the reaction products: Potential and pH effects. Electrochimica Acta, 1994, 39, 2387-2394.	2.6	133

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91	Investigation of the early stages of the electropolymerization of o-toluidine by UV-Vis reflectance spectroscopy. <i>Synthetic Metals</i> , 1994, 62, 9-15.	2.1	29
92	Selective oxidation of D-gluconic acid on platinum and lead adatoms modified platinum electrodes in alkaline medium. <i>Electrochimica Acta</i> , 1993, 38, 1359-1365.	2.6	30
93	Electrocatalytic Oxidation of Oxygenated Aliphatic Organic Compounds at Noble Metal Electrodes. <i>Modern Aspects of Electrochemistry</i> , 1992, , 97-264.	0.2	94
94	On line chromatographic analysis of the products resulting from the electrocatalytic oxidation of d-glucose on Pt, Au and adatoms modified Pt electrodes Part I. Acid and neutral media. <i>Electrochimica Acta</i> , 1992, 37, 1333-1342.	2.6	79
95	On line chromatographic analysis of the products resulting from the electrocatalytic oxidation of d-glucose on pure and adatoms modified Pt and Au electrodes Part II. Alkaline medium. <i>Electrochimica Acta</i> , 1992, 37, 1909-1918.	2.6	83
96	Electrosynthesis in aqueous medium: a kinetic study of the electrocatalytic oxidation of oxygenated organic molecules. <i>Electrochimica Acta</i> , 1991, 36, 1157-1164.	2.6	90
97	Comments on A. Heinzl et al.'s paper on the electrooxidation of methanol and formaldehyde at a platinum electrode: a seesaw study of radical intermediates. <i>Electrochimica Acta</i> , 1990, 35, 679-680.	2.6	4
98	Electrocatalytic oxidation of hydrogen, formic acid and methanol on platinum modified copolymer (pyrrole-dithiophene) electrodes. <i>Journal of Applied Electrochemistry</i> , 1990, 20, 524-526.	1.5	61
99	Effect of the surfactant tetrafluoroborate on hydrogen evolution on a zinc electrode. <i>Electrochimica Acta</i> , 1990, 35, 479-481.	2.6	46
100	Electrocatalytic oxidation of hydrogen on polycrystal and single-crystal nickel electrodes. <i>Surface Science</i> , 1990, 234, 87-97.	0.8	48
101	Electrochemical studies of the adsorption of propargyl alcohol on a smooth platinum electrode in acid medium. <i>Electrochimica Acta</i> , 1989, 34, 433-438.	2.6	10
102	In situ infrared reflectance spectroscopic study of the adsorbed species resulting from CH <sub>3</sub> OH adsorption on polycrystalline Pt in acid solution. <i>Journal of Electroanalytical Chemistry and Interfacial Electrochemistry</i> , 1989, 258, 463-467.	0.3	22
103	Electrocatalytic oxidation of methanol on platinum dispersed in polyaniline conducting polymers. <i>Journal of Applied Electrochemistry</i> , 1989, 19, 462-464.	1.5	110
104	Electrocatalytic oxidation of 1,2-propanediol III. A kinetic analysis of its oxidation on platinum in acid medium. <i>Electrochimica Acta</i> , 1988, 33, 1359-1365.	2.6	18
105	Electrochemical studies of the adsorption of 1-propanol on smooth platinum electrodes. <i>Electrochimica Acta</i> , 1988, 33, 1581-1587.	2.6	21
106	Evidence for the effect of molecular structure on the electrochemical reactivity of alcohols. <i>Journal of Electroanalytical Chemistry and Interfacial Electrochemistry</i> , 1985, 193, 159-173.	0.3	29
107	Electrosorption of carbon monoxide at the platinum-electrolyte interface. <i>Surface Science</i> , 1985, 162, 789-795.	0.8	10
108	Carbon monoxide electrosorption on low index platinum single crystal electrodes. <i>Journal of Electroanalytical Chemistry and Interfacial Electrochemistry</i> , 1984, 170, 305-317.	0.3	76

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109	An improved solution-tight electrode holder for variable temperature electrochemical studies. Journal of Electroanalytical Chemistry and Interfacial Electrochemistry, 1979, 99, 251-253.	0.3	3
110	The Direct Ethanol Fuel Cell: a Challenge to Convert Bioethanol Cleanly into Electric Energy. , 0, , 1-46.		13