Wen-Feng Lin

List of Publications by Year
in descending order

87 papers	4,401 citations	101384 36 h-index	110170 64 g-index
89 all docs	89 docs citations	89 times ranked	4602 citing authors

#	Article	IF	Citations
1	Methanol Oxidation on PtRu Electrodes. Influence of Surface Structure and Ptâ˘'Ru Atom Distribution. Langmuir, 2000, 16, 522-529.	1.6	385
2	Layered double hydroxide-based electrocatalysts for the oxygen evolution reaction: identification and tailoring of active sites, and superaerophobic nanoarray electrode assembly. Chemical Society Reviews, 2021, 50, 8790-8817.	18.7	331
3	A general route <i>via</i> formamide condensation to prepare atomically dispersed metalâ€“nitrogenâ€“carbon electrocatalysts for energy technologies. Energy and Environmental Science, 2019, 12, 1317-1325.	15.6	290
4	Electrocatalytic Activity of Ru-Modified Pt(111) Electrodes toward CO Oxidation. Journal of Physical Chemistry B, 1999, 103, 6968-6977.	1.2	222
5	Catalysis of CO Electrooxidation at Pt, Ru, and PtRu Alloy. An in Situ FTIR Study. Journal of Physical Chemistry B, 1999, 103, 3250-3257.	1.2	177
6	High-Index-Facet- and High-Surface-Energy Nanocrystals of Metals and Metal Oxides as Highly Efficient Catalysts. Joule, 2020, 4, 2562-2598.	11.7	136
7	Synthesis of Co3O4 nano-octahedra enclosed by {111} facets and their excellent lithium storage properties as anode material of lithium ion batteries. Nano Energy, 2013, 2, 394-402.	8.2	131
8	Origin of Low CO₂ Selectivity on Platinum in the Direct Ethanol Fuel Cell. Angewandte Chemie - International Edition, 2012, 51, 1572-1575.	7.2	130
9	Onâ€Line FTIR Spectroscopic Investigations of Methanol Oxidation in a Direct Methanol Fuel Cell. Journal of the Electrochemical Society, 1997, 144, 1917-1922.	1.3	101
10	Atomically Dispersed Fe-N4 Modified with Precisely Located S for Highly Efficient Oxygen Reduction. Nano-Micro Letters, 2020, 12, 116.	14.4	99
11	Insights into the mechanism of nitrobenzene reduction to aniline over Pt catalyst and the significance of the adsorption of phenyl group on kinetics. Chemical Engineering Journal, 2016, 293, 337-344.	6.6	96
12	Electrochemical versus Gas-Phase Oxidation of Ru Single-Crystal Surfaces. Journal of Physical Chemistry B, 2000, 104, 6040-6048.	1.2	83
13	Semiconductor Electrochemistry for Clean Energy Conversion and Storage. Electrochemical Energy Reviews, 2021, 4, 757-792.	13.1	77
14	Tetrahexahedral Pt Nanocrystal Catalysts Decorated with Ru Adatoms and Their Enhanced Activity in Methanol Electrooxidation. ACS Catalysis, 2012, 2, 708-715.	5.5	76
15	The Electro-Oxidation of CO at the Ru(0001) Single-Crystal Electrode Surface. Journal of Physical Chemistry B, 2000, 104, 6642-6652.	1.2	73
16	Role of Water and Adsorbed Hydroxyls on Ethanol Electrochemistry on Pd: New Mechanism, Active Centers, and Energetics for Direct Ethanol Fuel Cell Running in Alkaline Medium. Journal of Physical Chemistry C, 2014, 118, 5762-5772.	1.5	73
17	Pd Nanocrystals with Continuously Tunable High-Index Facets as a Model Nanocatalyst. ACS Catalysis, 2019, 9, 3144-3152.	5.5	68
18	Probing the enhanced methanol electrooxidation mechanism on platinum-metal oxide catalyst. Applied Catalysis B: Environmental, 2021, 280, 119393.	10.8	68

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19	Gold nanoparticle-polymer nanocomposites synthesized by room temperature atmospheric pressure plasma and their potential for fuel cell electrocatalytic application. Scientific Reports, 2017, 7, 46682.	1.6	64
20	Electrocatalytic oxidation of ethanol and ethylene glycol on cubic, octahedral and rhombic dodecahedral palladium nanocrystals. Chemical Communications, 2018, 54, 2562-2565.	2.2	59
21	A review of non-precious metal single atom confined nanomaterials in different structural dimensions (1Dâ€œ3D) as highly active oxygen redox reaction electrocatalysts. Journal of Materials Chemistry A, 2020, 8, 2222-2245.	5.2	59
22	Room Temperature, Electrochemical Generation of Ozone with 50%â€‰Current Efficiency in 0.5M Sulfuric Acid at Cell Voltagesâ€‰<â€‰3V. Ozone: Science and Engineering, 2009, 31, 287-293.	1.4	57
23	Trimethoxymethane as an alternative fuel for a direct oxidation PBI polymer electrolyte fuel cell. Electrochimica Acta, 1998, 43, 3821-3828.	2.6	56
24	The origin of high activity but low CO2 selectivity on binary PtSn in the direct ethanol fuel cell. Physical Chemistry Chemical Physics, 2014, 16, 9432-9440.	1.3	56
25	Enhanced Dispersion of TiO2 Nanoparticles in a TiO2/PEDOT:PSS Hybrid Nanocomposite via Plasma-Liquid Interactions. Scientific Reports, 2015, 5, 15765.	1.6	50
26	Novel electrode structure for DMFC operated with liquid methanol. Electrochemistry Communications, 2006, 8, 5-8.	2.3	49
27	Standing Wave Oscillations in an Electrocatalytic Reaction. Journal of Physical Chemistry A, 2000, 104, 1854-1860.	1.1	48
28	Methanol electro-oxidation on platinum modified tungsten carbides in direct methanol fuel cells: a DFT study. Physical Chemistry Chemical Physics, 2015, 17, 25235-25243.	1.3	46
29	Designing Pt-Based Electrocatalysts with High Surface Energy. ACS Energy Letters, 2017, 2, 1892-1900.	8.8	46
30	Significance of Î²-dehydrogenation in ethanol electro-oxidation on platinum doped with Ru, Rh, Pd, Os and Ir. Physical Chemistry Chemical Physics, 2014, 16, 13248-13254.	1.3	44
31	Biobutanol as Fuel for Direct Alcohol Fuel Cellsâ€"Investigation of Sn-Modified Pt Catalyst for Butanol Electro-oxidation. ACS Applied Materials & Interfaces, 2016, 8, 12859-12870.	4.0	43
32	A tubular direct methanol fuel cell with Ti mesh anode. Journal of Power Sources, 2006, 160, 1003-1008.	4.0	41
33	Low loading platinum nanoparticles on reduced graphene oxide-supported tungsten carbide crystallites as a highly active electrocatalyst for methanol oxidation. Electrochimica Acta, 2013, 114, 133-141.	2.6	41
34	Enhancing the activity and tuning the mechanism of formic acid oxidation at tetrahexahedral Pt nanocrystals by Au decoration. Physical Chemistry Chemical Physics, 2012, 14, 16415.	1.3	40
35	In situ ftirs investigations of surface processes of Rh electrodeâ€"novel observation of geminal adsorbates of carbon monoxide on Rh electrode in acid solution. Electrochimica Acta, 1996, 41, 803-809.	2.6	37
36	A neural-network-like catalyst structure for the oxygen reduction reaction: carbon nanotube bridged hollow PtCo alloy nanoparticles in a MOF-like matrix for energy technologies. Journal of Materials Chemistry A, 2019, 7, 19786-19792.	5.2	37

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37	PtRu/Ti anodes with varying Pt ? Ru ratio prepared by electrodeposition for the direct methanol fuel cell. Physical Chemistry Chemical Physics, 2006, 8, 2720.	1.3	36
38	Preparation and Characterization of New Anodes Based on Ti Mesh for Direct Methanol Fuel Cells. Journal of the Electrochemical Society, 2006, 153, A1575.	1.3	36
39	Effect of Mass Transport on the Electrochemical Oxidation of Alcohols Over Electrodeposited Film and Carbon-Supported Pt Electrodes. Topics in Catalysis, 2018, 61, 240-253.	1.3	36
40	Electrochemical Oxygen Reduction to Hydrogen Peroxide via a Twoâ€Electron Transfer Pathway on Carbonâ€Based Singleâ€Atom Catalysts. Advanced Materials Interfaces, 2021, 8, 2001360.	1.9	35
41	In Situ FTIR Studies of the Effect of Temperature on the Adsorption and Electrooxidation of CO at the Ru(0001) Electrode Surface. Journal of Physical Chemistry B, 2000, 104, 12002-12011.	1.2	31
42	Antibuoyancy and Unidirectional Gas Evolution by Janus Electrodes with Asymmetric Wettability. ACS Applied Materials & Interfaces, 2020, 12, 23627-23634.	4.0	29
43	Curvatureâ€induced Zn 3d Electron Return on Znâˆ'N₄ Singleâ€atom Carbon Nanofibers for Boosting Electroreduction of CO₂. ChemCatChem, 2021, 13, 603-609.	1.8	29
44	High CO-Tolerant Ru-Based Catalysts by Constructing an Oxide Blocking Layer. Journal of the American Chemical Society, 2022, 144, 9292-9301.	6.6	29
45	Investigations of coadsorption of carbon monoxide with S or Bi adatoms at a platinum electrode by in-situ FTIR spectroscopy and quantum chemistry analysis. Journal of Electroanalytical Chemistry, 1994, 364, 1-7.	1.9	28
46	Development of a cross-linked quaternized poly(styrene-b-isobutylene-b-styrene)/graphene oxide composite anion exchange membrane for direct alkaline methanol fuel cell application. RSC Advances, 2016, 6, 52122-52130.	1.7	28
47	Dodecahedral W@WC Composite as Efficient Catalyst for Hydrogen Evolution and Nitrobenzene Reduction Reactions. ACS Applied Materials & Interfaces, 2017, 9, 20594-20602.	4.0	28
48	Ti mesh anodes prepared by electrochemical deposition for the direct methanol fuel cell. International Journal of Hydrogen Energy, 2006, 31, 1914-1919.	3.8	27
49	PtRuO2/Ti anodes with a varying Pt:Ru ratio for direct methanol fuel cells. Journal of Power Sources, 2006, 161, 813-819.	4.0	26
50	S vacancy modulated Zn Cd1âˆ'S/CoP quantum dots for efficient H2 evolution from water splitting under visible light. Journal of Energy Chemistry, 2021, 61, 210-218.	7.1	26
51	Structure and reactivity of the Ru(0001) electrode towards fuel cell electrocatalysis. Electrochimica Acta, 2003, 48, 3815-3822.	2.6	24
52	Identification of CO Adsorbed at Ru and Pt Sites on a Polycrystalline Pt/Ru Electrode and the Observation of Their Oxidation and Free Interchange under Open Circuit Conditions. Journal of Physical Chemistry B, 2004, 108, 3391-3394.	1.2	24
53	A rechargeable Mg 2+ /Li + hybrid battery based on sheet-like MoSe 2 /C nanocomposites cathode. Electrochemistry Communications, 2018, 90, 16-20.	2.3	24
54	New insights into electrocatalytic ozone generation via splitting of water over PbO2 electrode: A DFT study. Chemical Physics Letters, 2016, 654, 46-51.	1.2	23

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55	The electro-oxidations of methanol and formic acid at the Ru(0001) electrode as a function of temperature: in-situ FTIR studies. Physical Chemistry Chemical Physics, 2001, 3, 3312-3319.	1.3	22
56	A quantitative research on S- and SO2-poisoning Pt/Vulcan carbon fuel cell catalyst. Electrochimica Acta, 2012, 67, 50-54.	2.6	22
57	A novel electrochemical device for the disinfection of fluids by OH radicals. Chemical Communications, 2006, , 4022.	2.2	21
58	The effects of the specific adsorption of anion on the reactivity of the Ru(0001) surface towards CO adsorption and oxidation: in situ FTIRS studies. Physical Chemistry Chemical Physics, 2008, 10, 3774.	1.3	20
59	Elucidation of the surface structureâ€“selectivity relationship in ethanol electro-oxidation over platinum by density functional theory. Physical Chemistry Chemical Physics, 2016, 18, 15501-15504.	1.3	20
60	Insight into CO Activation over Cu(100) under Electrochemical Conditions. Electrochimica Acta, 2016, 190, 446-454.	2.6	19
61	Identification of the structure of a CO adlayer on a Pt(111) electrode. Chemical Physics Letters, 1999, 312, 1-6.	1.2	18
62	Acetaldehyde Production in the Direct Ethanol Fuel Cell: Mechanistic Elucidation by Density Functional Theory. Journal of Physical Chemistry C, 2012, 116, 7185-7188.	1.5	18
63	Insights into the mechanism of electrochemical ozone production via water splitting on the Ni and Sb doped SnO₂ catalyst. Physical Chemistry Chemical Physics, 2017, 19, 3800-3806.	1.3	18
64	Quantum chemistry and in situ FTir spectroscopy studies on potential-dependent properties of CO adsorbed on Pt electrodes. Electrochimica Acta, 1993, 38, 1107-1114.	2.6	15
65	WC@meso-Pt coreâ€“shell nanostructures for fuel cells. Chemical Communications, 2013, 49, 11677.	2.2	15
66	An insight into methanol oxidation mechanisms on RuO₂(100) under an aqueous environment by DFT calculations. Physical Chemistry Chemical Physics, 2017, 19, 7476-7480.	1.3	15
67	Activity Enhancement of Tetrahexahedral Pd Nanocrystals by Bi Decoration towards Ethanol Electrooxidation in Alkaline Media. Electrochimica Acta, 2015, 162, 290-299.	2.6	14
68	In situ FTIR studies on the effect of temperature on the electro-oxidation of small organic molecules at the Ru(0001) electrode. Faraday Discussions, 2002, 121, 267-284.	1.6	12
69	Comparative investigation of CO2 and oxygen reduction on Fe/N/C catalysts. Electrochemistry Communications, 2018, 97, 82-86.	2.3	12
70	Quantum chemistry studies on electronic properties of CNâˆ’ adsorbed on silver electrodes. Electrochimica Acta, 1992, 37, 211-213.	2.6	11
71	A simple way to fine tune the redox potentials of cobalt ions encapsulated in nitrogen doped graphene molecular catalysts for the oxygen evolution reaction. Chemical Communications, 2016, 52, 13409-13412.	2.2	11
72	In-situ synthesis of cross-linked imidazolium functionalized Poly(styrene-b-isobutylene-b-styrene) for anion exchange membranes. Polymer, 2021, 224, 123682.	1.8	11

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73	Boosting electrocatalytic oxidation of formic acid on SnO2-decorated Pd nanosheets. Journal of Catalysis, 2021, 399, 8-14.	3.1	11
74	The effects of stepped sites and ruthenium adatom decoration on methanol dehydrogenation over platinum-based catalyst surfaces. Catalysis Today, 2015, 242, 230-239.	2.2	10
75	Insights into ethanol electro-oxidation over solvated Pt(1 0 0): Origin of selectivity and kinetics revealed by DFT. Applied Surface Science, 2020, 533, 147505.	3.1	10
76	Template-free environmentally friendly synthesis and characterization of unsupported tungsten carbide with a controllable porous framework. Microporous and Mesoporous Materials, 2012, 149, 76-85.	2.2	9
77	Electrooxidation of methanol in an alkaline fuel cell: determination of the nature of the initial adsorbate. Physical Chemistry Chemical Physics, 2013, 15, 20170.	1.3	9
78	Tubular Cathode Prepared by a Dip-Coating Method for Low Temperature DMFC. Fuel Cells, 2006, 6, 326-330.	1.5	8
79	Understanding of Dynamic Contacting Behaviors of Underwater Gas Bubbles on Solid Surfaces. Langmuir, 2020, 36, 11422-11428.	1.6	7
80	Effect of methanol concentration on oxygen reduction reaction activity of Pt/C catalysts. Chinese Journal of Catalysis, 2013, 34, 1105-1111.	6.9	6
81	Electrochemical interfacial influences on deoxygenation and hydrogenation reactions in CO reduction on a Cu(100) surface. Physical Chemistry Chemical Physics, 2016, 18, 15304-15311.	1.3	6
82	IN-SITU FT-IR SPECTROSCOPIC STUDIES OF FUEL CELL ELECTRO-CATALYSIS: FROM SINGLE-CRYSTAL TO NANOPARTICLE SURFACES. Chemical Engineering Communications, 2007, 195, 147-166.	1.5	5
83	Observation of an optical phonon band in situ in TiO2 electrochemistry: a possible indicator of strongly trapped intermediates in the O2 evolution reaction. Chemical Physics Letters, 2001, 344, 488-494.	1.2	3
84	In Situ FTIR Spectroscopy Studies on Electrochemical Redox Processes of High Nuclearity Osmium Carbonyl Clusters. The Journal of Physical Chemistry, 1996, 100, 14904-14907.	2.9	2
85	Fabricating Core-Shell WC@C/Pt Structures and its Enhanced Performance for Methanol Electrooxidation. Chinese Journal of Chemical Physics, 2017, 30, 450-456.	0.6	2
86	In-situ FTIR Spectroscopic Studies of the Adsorption and Oxidation of Small Organic Molecules at the Ru(0001) Electrode Under Various Conditions. , 2007, , 99-138.		1
87	Copper-based Graphene Nanoplatelet Composites as Interconnect for Power Electronics Pacakging. , 2018, , .		0