

# Trends in electrocatalysis on extended and nanoscale P

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Synthesis, Dealloying, and ORR Electrocatalysis of PDDA-Stabilized Cu-Rich Pt Alloy Nanoparticles. <i>Journal of the Electrochemical Society</i> , 2007, 154, B1192.	1.3	74
2	Electrocatalytic Trends on IB Group Metals: The Oxygen Reduction Reaction. <i>Zeitschrift Fur Physikalische Chemie</i> , 2007, 221, 1379-1391.	1.4	10
3	The Role of Surface Defects in CO Oxidation, Methanol Oxidation, and Oxygen Reduction on Pt(111). <i>Journal of the Electrochemical Society</i> , 2007, 154, F238.	1.3	45
4	Facets and surface relaxation of tetrahedral platinum nanocrystals. <i>Applied Physics Letters</i> , 2007, 91, .	1.5	41
5	Electrocatalysis on Bimetallic Surfaces: Modifying Catalytic Reactivity for Oxygen Reduction by Voltammetric Surface Dealloying. <i>Journal of the American Chemical Society</i> , 2007, 129, 12624-12625.	6.6	742
6	Composition Effects of FePt Alloy Nanoparticles on the Electro-Oxidation of Formic Acid. <i>Langmuir</i> , 2007, 23, 11303-11310.	1.6	243
7	Efficient Oxygen Reduction Fuel Cell Electrocatalysis on Voltammetrically Dealloyed Pt-Cu-Co Nanoparticles. <i>Angewandte Chemie - International Edition</i> , 2007, 46, 8988-8991.	7.2	343
9	Segregation and stability at Pt <sub>3</sub> Ni(111) surfaces and Pt <sub>75</sub> Ni <sub>25</sub> nanoparticles. <i>Electrochimica Acta</i> , 2008, 53, 6076-6080.	2.6	57
10	Synthesis of Pt <sub>3</sub> Co Alloy Nanocatalyst via Reverse Micelle for Oxygen Reduction Reaction in PEMFCs. <i>Topics in Catalysis</i> , 2008, 49, 241-250.	1.3	79
11	Direct Visualization of Oxygen Distribution in Operating Fuel Cells. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 2792-2795.	7.2	42
12	A General Approach to the Size- and Shape-Controlled Synthesis of Platinum Nanoparticles and Their Catalytic Reduction of Oxygen. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 3588-3591.	7.2	791
13	Stable Bimetallic Gold-Platinum Nanoparticles Immobilized on Spherical Polyelectrolyte Brushes: Synthesis, Characterization, and Application for the Oxidation of Alcohols. <i>Advanced Materials</i> , 2008, 20, 1928-1933.	11.1	188
14	Controlled Growth of Pt Nanowires on Carbon Nanospheres and Their Enhanced Performance as Electrocatalysts in PEM Fuel Cells. <i>Advanced Materials</i> , 2008, 20, 3900-3904.	11.1	318
17	Synthesis and characterization of nanostructured PtCo-CeO <sub>x</sub> /C for oxygen reduction reaction. <i>Journal of Power Sources</i> , 2008, 185, 871-875.	4.0	52
18	Structure control of Pt-Sn bimetallic catalysts supported on highly oriented pyrolytic graphite (HOPG). <i>Applied Surface Science</i> , 2008, 254, 3808-3812.	3.1	19
19	Loading of Se/Ru/C electrocatalyst on a rotating ring-disk electrode and the loading impact on a H <sub>2</sub> O <sub>2</sub> release during oxygen reduction reaction. <i>Electrochemistry Communications</i> , 2008, 10, 611-615.	2.3	56
20	Fuel cell catalyst degradation on the nanoscale. <i>Electrochemistry Communications</i> , 2008, 10, 1144-1147.	2.3	309
21	Measurement of oxygen reduction activities via the rotating disc electrode method: From Pt model surfaces to carbon-supported high surface area catalysts. <i>Electrochimica Acta</i> , 2008, 53, 3181-3188.	2.6	888

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23	Improved oxygen reduction reactivity of platinum monolayers on transition metal surfaces. <i>Surface Science</i> , 2008, 602, L89-L94.	0.8	204
24	A high-throughput study of PtNiZr catalysts for application in PEM fuel cells. <i>Electrochimica Acta</i> , 2008, 53, 3680-3689.	2.6	25
25	Preparation and characterisation of platinum- and gold-coated copper, iron, cobalt and nickel deposits on glassy carbon substrates. <i>Electrochimica Acta</i> , 2008, 53, 6559-6567.	2.6	132
26	Voltammetric surface dealloying of Pt bimetallic nanoparticles: an experimental and DFT computational analysis. <i>Physical Chemistry Chemical Physics</i> , 2008, 10, 3670.	1.3	192
27	Application of First Principles Methods in the Study of Fuel Cell Air-Cathode Electrocatalysis. , 2008, , 289-329.		3
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29	Platinum-based Alloy Catalysts for PEM Fuel Cells. , 2008, , 631-654.		11
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31	New Trends in Nanoparticles: Syntheses and Their Applications to Fuel Cells, Health Care, and Magnetic Storage. <i>Israel Journal of Chemistry</i> , 2008, 48, 333-347.	1.0	13
32	Effect of Co doping on catalytic activity of small Pt clusters. <i>Journal of Chemical Physics</i> , 2008, 128, 124704.	1.2	19
33	Electrochemical Materials for PEM Fuel Cells: Insights from Physical Theory and Simulation. <i>Modern Aspects of Electrochemistry</i> , 2008, , 1-79.	0.2	3
34	Density functional theory study of the adsorption of oxygen molecule on iron phthalocyanine and cobalt phthalocyanine. <i>Molecular Simulation</i> , 2008, 34, 1051-1056.	0.9	70
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36	H <sub>2</sub> O Release during Oxygen Reduction Reaction on Pt Nanoparticles. <i>Electrochemical and Solid-State Letters</i> , 2008, 11, B208.	2.2	73
37	Temperature and potential-dependent structural changes in a Pt cathode electrocatalyst viewed by in situ XAFS. <i>Journal of Non-Crystalline Solids</i> , 2008, 354, 4227-4232.	1.5	16
38	Amorphous Ni <sub>59</sub> Nb <sub>40</sub> Pt <sub>x</sub> M <sub>1-x</sub> (M=Ru,Sn) electrocatalysts for oxygen reduction reaction. <i>Journal of Non-Crystalline Solids</i> , 2008, 354, 5165-5168.	1.5	20
39	Effects of carbon supports on Pt nano-cluster catalyst. <i>Computational Materials Science</i> , 2008, 44, 163-166.	1.4	37

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40	Oxygen Reduction Activity of Magnetron-Sputtered Pt <sub>1-x</sub> Co <sub>x</sub> (0 ≤ x ≤ 0.5) Films. Journal of the Electrochemical Society, 2008, 155, B108.	1.3	32
41	Dealloyed Pt-Cu Core-Shell Nanoparticle Electrocatalysts for Use in PEM Fuel Cell Cathodes. Journal of Physical Chemistry C, 2008, 112, 2770-2778.	1.5	432
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43	Synthesis and Characterization of Nanostructured Pd-Mo Electrocatalysts for Oxygen Reduction Reaction in Fuel Cells. Journal of Physical Chemistry C, 2008, 112, 12037-12043.	1.5	85
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46	Tuning of Catalytic CO Oxidation by Changing Composition of Rh-Pt Bimetallic Nanoparticles. Nano Letters, 2008, 8, 673-677.	4.5	205
47	Compositional Control in Electrodeposited Ni <sub>x</sub> Pt <sub>1-x</sub> Films. Journal of the Electrochemical Society, 2008, 155, D1.	1.3	22
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49	Performance of ethanol electro-oxidation on Ni-Cu alloy nanowires through composition modulation. Nanotechnology, 2008, 19, 215711.	1.3	31
50	Electrochemical Observation of Ligand Effects on Oxygen Reduction at Ligand-Stabilized Pt Nanoparticle Electrocatalysts. Electrochemical and Solid-State Letters, 2008, 11, B161.	2.2	18
51	Impact of Glass Corrosion on the Electrocatalysis on Pt Electrodes in Alkaline Electrolyte. Journal of the Electrochemical Society, 2008, 155, P1.	1.3	122
52	Effects of Composition and Annealing Conditions on Catalytic Activities of Dealloyed Pt-Cu Nanoparticle Electrocatalysts for PEMFC. Journal of the Electrochemical Society, 2008, 155, B1281.	1.3	92
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59	PtRu-Modified Au Nanoparticles as Electrocatalysts for Direct Methanol Fuel Cells. <i>Journal of the Electrochemical Society</i> , 2009, 156, B1150.	1.3	13
60	Probing Compositional Variation within Hybrid Nanostructures. <i>ACS Nano</i> , 2009, 3, 3369-3376.	7.3	27
61	Electrochemical Properties of Pt Coatings on Ni Prepared by Atomic Layer Deposition. <i>Journal of the Electrochemical Society</i> , 2009, 156, A37.	1.3	23
62	Spin-Polarized Density Functional Theory Study of Reactivity of Diatomic Molecule on Bimetallic System: The Case of $O_2$ Dissociative Adsorption on Pt Monolayer on Fe(001). <i>Journal of Physical Chemistry A</i> , 2009, 113, 14302-14307.	1.1	22
63	PEM Fuel Cells for Transport Applications: State of the Art and Challenges. , 2009, , .		3
64	Surface Structure of Pd <sub>3</sub> Fe(111) and Effects of Oxygen Adsorption. <i>Materials Research Society Symposia Proceedings</i> , 2009, 1217, 1.	0.1	0
65	Monodisperse Pt-Cu Nanocubes <sup>1/4</sup> Synthesis, Characterization, and Electrochemical Properties. <i>Materials Research Society Symposia Proceedings</i> , 2009, 1217, 1.	0.1	0
66	Electronic properties of the Pt <sub>x</sub> Me <sub>1-x</sub> /Pt(111) (Me=Au, Bi, In, Pb, Pd, Sn and Cu) surface alloys: DFT study. <i>Materials Chemistry and Physics</i> , 2009, 116, 94-101.	2.0	34
67	Electrochemistry at Well-Characterized Bimetallic Surfaces. , 0, , 245-269.		2
68	Recent Developments in the Electrocatalysis of the O <sub>2</sub> Reduction Reaction. , 0, , 271-315.		10
71	Nanostrukturierte Kern-Schale-Katalysatoren für PEM-Brennstoffzellen – Hochaktive Materialien durch partielle Entlegierung. <i>Chemie-Ingenieur-Technik</i> , 2009, 81, 573-580.	0.4	3
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73	A Simple Electrochemical Approach Based on Inexpensive Wall-Jet Screen-Printed Ring Disk Electrode to Evaluate Oxygen Reduction Catalysts. <i>Electroanalysis</i> , 2009, 21, 2390-2394.	1.5	13
74	Adsorbate-Induced Surface Segregation for Core-Shell Nanocatalysts. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 3529-3531.	7.2	295
75	Solution-Based Evolution and Enhanced Methanol Oxidation Activity of Monodisperse Platinum-Copper Nanocubes. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 4217-4221.	7.2	367
76	A model for high-surface-area porous Nafion <sup>®</sup> -bonded cathodes operating in hydrogen-oxygen proton exchange membrane fuel cells (PEMFCs). <i>Journal of Solid State Electrochemistry</i> , 2009, 13, 991-997.	1.2	3
77	In situ voltammetric de-alloying of fuel cell catalyst electrode layer: A combined scanning electron microscope/electron probe micro-analysis study. <i>Journal of Power Sources</i> , 2009, 190, 40-47.	4.0	27

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79	Cobalt coated electrodes for high efficiency PEM fuel cells by plasma sputtering deposition. <i>Journal of Applied Electrochemistry</i> , 2009, 39, 1821-1826.	1.5	5
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81	Alloys of platinum and early transition metals as oxygen reduction electrocatalysts. <i>Nature Chemistry</i> , 2009, 1, 552-556.	6.6	2,716
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83	Monodisperse and highly active PtNi nanoparticles for O <sub>2</sub> reduction. <i>Electrochemistry Communications</i> , 2009, 11, 2278-2281.	2.3	28
84	Sonoelectrochemical (20kHz) production of platinum nanoparticles from aqueous solutions. <i>Electrochimica Acta</i> , 2009, 54, 7201-7206.	2.6	60
85	Preparation and characterization of carbon-supported Pt@Au cathode catalysts for oxygen reduction reaction. <i>Journal of Colloid and Interface Science</i> , 2009, 336, 654-657.	5.0	28
86	Particle size effect in carbon supported Pt@Co alloy electrocatalysts prepared by the borohydride method: XRD characterization. <i>Applied Catalysis A: General</i> , 2009, 357, 1-4.	2.2	27
87	Preparation and surface characterization of Pt@Au/C cathode catalysts with ceria modification for oxygen reduction reaction. <i>Electrochemistry Communications</i> , 2009, 11, 1362-1364.	2.3	24
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92	Architecture of Bimetallic Pt <sub>x</sub> Co <sub>1-x</sub> Electro-catalysts for Oxygen Reduction Reaction As Investigated by X-ray Absorption Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2009, 113, 12674-12681.	1.5	88
93	Measuring and Relating the Electronic Structures of Nonmodel Supported Catalytic Materials to Their Performance. <i>Journal of the American Chemical Society</i> , 2009, 131, 2747-2754.	6.6	102
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98	Degradation of Carbon-Supported Pt Bimetallic Nanoparticles by Surface Segregation. <i>Journal of the American Chemical Society</i> , 2009, 131, 16348-16349.	6.6	182
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105	Size and composition distribution dynamics of alloy nanoparticle electrocatalysts probed by anomalous small angle X-ray scattering (ASAXS). <i>Faraday Discussions</i> , 2008, 140, 283-296.	1.6	71
106	Roles of Surface Steps on Pt Nanoparticles in Electro-oxidation of Carbon Monoxide and Methanol. <i>Journal of the American Chemical Society</i> , 2009, 131, 15669-15677.	6.6	186
107	Electrocatalytic Activity of Gold-Platinum Clusters for Low Temperature Fuel Cell Applications. <i>Journal of Physical Chemistry C</i> , 2009, 113, 5014-5024.	1.5	72
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109	Mesoscopic mass transport effects in electrocatalytic processes. <i>Faraday Discussions</i> , 2008, 140, 167-184.	1.6	118
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111	Probing the surface-enhanced Raman scattering properties of Au-Ag nanocages at two different excitation wavelengths. <i>Physical Chemistry Chemical Physics</i> , 2009, 11, 5903.	1.3	108
112	Pd-Ca-Fe Nanoparticles Investigated by X-ray Absorption Spectroscopy as Electrocatalysts for Oxygen Reduction. <i>Chemistry of Materials</i> , 2009, 21, 4030-4036.	3.2	33
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117	Pt <sub>x</sub> Co <sub>y</sub> Catalysts Degradation in PEFC Environments: Mechanistic Insights. <i>Journal of the Electrochemical Society</i> , 2009, 156, B410.	1.3	46
118	Protonation of O <sub>2</sub> adsorbed on a Pt <sub>3</sub> island supported on transition metal surfaces. <i>Journal of Chemical Physics</i> , 2009, 131, 044709.	1.2	2
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125	Another way of looking at bonding on bimetallic surfaces: the role of spin polarization of surface metal d states. <i>Journal of Physics Condensed Matter</i> , 2009, 21, 492201.	0.7	9
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128	Structural effects on trends in the deposition and dissolution of metal-supported metal adstructures. <i>Electrochimica Acta</i> , 2010, 55, 5545-5550.	2.6	64
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130	Rapid Microwave-Assisted Solvothermal Synthesis of Methanol Tolerant Pt-Pd-Co Nanoalloy Electrocatalysts. <i>Fuel Cells</i> , 2010, 10, 375-383.	1.5	26
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132	Tuning Adsorption via Strain and Vertical Ligand Effects. <i>ChemPhysChem</i> , 2010, 11, 1518-1524.	1.0	79
133	Platinum and Non-Platinum Nanomaterials for the Molecular Oxygen Reduction Reaction. <i>ChemPhysChem</i> , 2010, 11, 2732-2744.	1.0	86
134	Advances in Photoelectrocatalysis with Nanotopographical Photoelectrodes. <i>ChemPhysChem</i> , 2010, 11, 1603-1615.	1.0	20



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151	Bimetallic nanoparticles of PtM (M=Au, Cu, Ni) supported on iron oxide: Radiolytic synthesis and CO oxidation catalysis. <i>Applied Catalysis A: General</i> , 2010, 387, 195-202.	2.2	85
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155	Noncovalently functionalized graphitic mesoporous carbon as a stable support of Pt nanoparticles for oxygen reduction. <i>Journal of Power Sources</i> , 2010, 195, 1805-1811.	4.0	78
156	Surface structure and electronic properties of Pt-Co/Fe/C nanocatalysts and their relation with catalytic activity for oxygen reduction. <i>Journal of Power Sources</i> , 2010, 195, 3111-3118.	4.0	42
157	Examination of the activity and durability of PEMFC catalysts in liquid electrolytes. <i>Journal of Power Sources</i> , 2010, 195, 6312-6322.	4.0	148
158	The structure-activity relationship of Pd-Co/C electrocatalysts for oxygen reduction reaction. <i>International Journal of Hydrogen Energy</i> , 2010, 35, 1864-1871.	3.8	40
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1219	3D Platinum-Iron Lead Nanowire Networks as Highly Efficient Ethylene Glycol Oxidation Electrocatalysts. <i>Small</i> , 2016, 12, 4464-4470.	5.2	98
1220	Oxygen Reduction Reaction Activity for Strain-Controlled Pt-Based Model Alloy Catalysts: Surface Strains and Direct Electronic Effects Induced by Alloying Elements. <i>ACS Catalysis</i> , 2016, 6, 5285-5289.	5.5	122
1221	Platinum-Iron-Nickel Trimetallic Catalyst with Superlattice Structure for Enhanced Oxygen Reduction Activity and Durability. <i>Industrial &amp; Engineering Chemistry Research</i> , 2016, 55, 11458-11466.	1.8	33
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1227	S and N codoped three-dimensional graphene-MnS hybrids with high electrocatalytic activity for oxygen reduction reaction. <i>Synthetic Metals</i> , 2016, 221, 55-60.	2.1	22
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1229	Low-Temperature Methane Combustion over Pd/H-ZSM-5: Active Pd Sites with Specific Electronic Properties Modulated by Acidic Sites of H-ZSM-5. <i>ACS Catalysis</i> , 2016, 6, 8127-8139.	5.5	212
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1243	Oxidation-Sulfidation Approach for Vertically Growing MoS <sub>2</sub> Nanofilms Catalysts on Molybdenum Foils as Efficient HER Catalysts. <i>Journal of Physical Chemistry C</i> , 2016, 120, 25843-25850.	1.5	56
1244	The stability and catalytic activity of W <sub>13</sub> @Pt <sub>42</sub> core-shell structure. <i>Scientific Reports</i> , 2016, 6, 35464.	1.6	7
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1285	Molecular Dynamics Simulations on $\text{O}_2$ Permeation through Nafion Ionomer on Platinum Surface. <i>Electrochimica Acta</i> , 2016, 188, 767-776.	2.6	198
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1296	A highly efficient PtCo/C electrocatalyst for the oxygen reduction reaction. <i>RSC Advances</i> , 2016, 6, 34484-34491.	1.7	12
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1311	Selective Dissolution of Surface Nickel Close to Platinum in PtNi Nanocatalyst toward Oxygen Reduction Reaction. <i>Chemistry of Materials</i> , 2016, 28, 1879-1887.	3.2	43
1312	One-Pot and Facile Fabrication of Hierarchical Branched Pt@Cu Nanoparticles as Excellent Electrocatalysts for Direct Methanol Fuel Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 5998-6003.	4.0	76
1313	Pt-free silver nanoalloy electrocatalysts for oxygen reduction reaction in alkaline media. <i>Catalysis Science and Technology</i> , 2016, 6, 3317-3340.	2.1	95
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1321	Cost-effective platinum alloy counter electrodes for liquid-junction dye-sensitized solar cells. <i>Journal of Power Sources</i> , 2016, 305, 217-224.	4.0	30
1322	Synthesis of PtM (M=Co, Ni)/Reduced Graphene Oxide Nanocomposites as Electrocatalysts for the Oxygen Reduction Reaction. <i>Nanoscale Research Letters</i> , 2016, 11, 3.	3.1	25
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1324	Tailoring the morphology of Pt <sub>3</sub> Cu <sub>1</sub> nanocrystals supported on graphene nanoplates for ethanol oxidation. <i>Nanoscale</i> , 2016, 8, 3075-3084.	2.8	51

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1330	Tuning Pt-skin to Ni-rich surface of Pt3Ni catalysts supported on porous carbon for enhanced oxygen reduction reaction and formic electro-oxidation. <i>Nano Energy</i> , 2016, 19, 198-209.	8.2	94
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1335	Atomic-scale restructuring of hollow PtNi/C electrocatalysts during accelerated stress tests. <i>Catalysis Today</i> , 2016, 262, 146-154.	2.2	25
1336	Multi-component electrocatalyst for low-temperature fuel cells synthesized via sonochemical reactions. <i>Ultrasonics Sonochemistry</i> , 2016, 29, 401-412.	3.8	21
1337	Catalytic nanoarchitectonics for environmentally compatible energy generation. <i>Materials Today</i> , 2016, 19, 12-18.	8.3	163
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1344	Preparation and characterization of PtIr alloy dendritic nanostructures with superior electrochemical activity and stability in oxygen reduction and ethanol oxidation reactions. <i>Catalysis Science and Technology</i> , 2016, 6, 569-576.	2.1	34
1345	Carbon supported Pd-based bimetallic and trimetallic catalyst for formic acid electrochemical oxidation. <i>Applied Catalysis B: Environmental</i> , 2016, 180, 758-765.	10.8	143
1346	Flexible cobalt phosphide network electrocatalyst for hydrogen evolution at all pH values. <i>Nano Research</i> , 2017, 10, 1010-1020.	5.8	76
1347	Enhanced Activity for Hydrogen Evolution Reaction over CoFe Catalysts by Alloying with Small Amount of Pt. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 3596-3601.	4.0	126
1348	Highly Active and Stable Pt-Pd Alloy Catalysts Synthesized by Room-Temperature Electron Reduction for Oxygen Reduction Reaction. <i>Advanced Science</i> , 2017, 4, 1600486.	5.6	101
1349	Enhanced Electrocatalytic Performance of Pt <sub>3</sub> Pd <sub>1</sub> Alloys Supported on CeO <sub>2</sub> /C for Methanol Oxidation and Oxygen Reduction Reactions. <i>Journal of Physical Chemistry C</i> , 2017, 121, 2069-2079.	1.5	65
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1351	Activity Trends of Binary Silver Alloy Nanocatalysts for Oxygen Reduction Reaction in Alkaline Media. <i>Small</i> , 2017, 13, 1603387.	5.2	59
1352	Moderne Anorganische Aerogele. <i>Angewandte Chemie</i> , 2017, 129, 13380-13403.	1.6	11
1353	Modern Inorganic Aerogels. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 13200-13221.	7.2	303
1354	Co-electrodeposited Mesoporous PtM (M=Co, Ni, Cu) as an Active Catalyst for Oxygen Reduction Reaction in a Polymer Electrolyte Membrane Fuel Cell. <i>Electrochimica Acta</i> , 2017, 230, 49-57.	2.6	31
1355	Combining theory and experiment in electrocatalysis: Insights into materials design. <i>Science</i> , 2017, 355, .	6.0	7,837
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1365	Effect of Acid Washing on the Oxygen Reduction Reaction Activity of Pt-Cu Aerogel Catalysts. <i>Electrochimica Acta</i> , 2017, 233, 210-217.	2.6	24
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1367	Isolation of Cu Atoms in Pd Lattice: Forming Highly Selective Sites for Photocatalytic Conversion of CO <sub>2</sub> to CH <sub>4</sub> . <i>Journal of the American Chemical Society</i> , 2017, 139, 4486-4492.	6.6	455
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1419	Electrochemical Reactions, Chemical Ordering Effects, and Calculated Electronic Structure, for Pt <sub>100-x</sub> M <sub>x</sub> (M = V, Zr) Thin-Film Surfaces in Acid Electrolytes. <i>MRS Advances</i> , 2017, 2, 459-464.	0.5	0
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1489	Enhanced Electrocatalytic Oxygen Reduction on NiWO <sub>3</sub> Solid Solution with Induced Oxygen Defects. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 34990-35000.	4.0	17
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1495	A combined electro- and photo-chemical approach to repeatedly fabricate two-dimensional molecular assemblies. <i>Electrochimica Acta</i> , 2017, 246, 823-829.	2.6	0
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1500	Increase of electrodeposited catalyst stability via plasma grown vertically oriented graphene nanoparticle movement restriction. <i>Chemical Communications</i> , 2017, 53, 9340-9343.	2.2	13
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1502	Decoration of Pd and Pt nanoparticles on a carbon nitride (C <sub>3</sub> N <sub>4</sub> ) surface for nitro-compounds reduction and hydrogen evolution reaction. <i>New Journal of Chemistry</i> , 2017, 41, 9658-9667.	1.4	41
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1507	In situ atomic-scale observation of oxygen-driven core-shell formation in Pt <sub>3</sub> Co nanoparticles. <i>Nature Communications</i> , 2017, 8, 204.	5.8	102
1508	Spinels: Controlled Preparation, Oxygen Reduction/Evolution Reaction Application, and Beyond. <i>Chemical Reviews</i> , 2017, 117, 10121-10211.	23.0	1,157
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1755	Aqueous Synthesis of Ultrathin Platinum/Non-Noble Metal Alloy Nanowires for Enhanced Hydrogen Evolution Activity. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 11678-11682.	7.2	133
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1757	Phase conversion of Pt <sub>3</sub> Ni <sub>2</sub> /C from disordered alloy to ordered intermetallic with strained lattice for oxygen reduction reaction. <i>Electrochimica Acta</i> , 2018, 283, 1253-1260.	2.6	26
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1772	Facile Synthesis of PtCu Alloy/Graphene Oxide Hybrids as Improved Electrocatalysts for Alkaline Fuel Cells. <i>ACS Omega</i> , 2018, 3, 8724-8732.	1.6	21
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1776	In situ synthesis of chemically ordered primitive cubic Pt <sub>3</sub> Co nanoparticles by a spray paint drying method for hydrogen evolution reaction. <i>Journal of Materials Science</i> , 2018, 53, 12399-12406.	1.7	11
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1781	Facile preparation of biomass-derived bifunctional electrocatalysts for oxygen reduction and evolution reactions. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 8611-8622.	3.8	64
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1798	Salt-Templated Platinum-Copper Porous Macrobeams for Ethanol Oxidation. Catalysts, 2019, 9, 662.	1.6	7
1799	Local Structural Disorder Enhances the Oxygen Reduction Reaction Activity of Carbon-Supported Low Pt Loading CoPt Nanocatalysts. Journal of Physical Chemistry C, 2019, 123, 19013-19021.	1.5	18
1800	Core@shell nanostructured Au@Ni <sub>m</sub> Pt <sub>m</sub> for electrochemical oxygen reduction reaction: effect of the core size and shell thickness. Catalysis Science and Technology, 2019, 9, 4668-4677.	2.1	12
1801	P-doped mesoporous carbons for high-efficiency electrocatalytic oxygen reduction. Chinese Journal of Catalysis, 2019, 40, 1366-1374.	6.9	38
1802	Lead ruthenate nanocrystals on reduced graphene oxides as an efficient bifunctional catalyst for metal-air batteries. Journal of Industrial and Engineering Chemistry, 2019, 79, 409-417.	2.9	2
1803	Ligand Effect of Shape-Controlled Î <sup>2</sup> -Palladium Hydride Nanocrystals on Liquid-Fuel Oxidation Reactions. Chemistry of Materials, 2019, 31, 5663-5673.	3.2	45
1804	Achievements, challenges and perspectives on cathode catalysts in proton exchange membrane fuel cells for transportation. Nature Catalysis, 2019, 2, 578-589.	16.1	760
1805	Nitrogen-doped graphite encapsulated Fe/Fe <sub>3</sub> C nanoparticles and carbon black for enhanced performance towards oxygen reduction. Journal of Materials Science and Technology, 2019, 35, 2543-2551.	5.6	31
1806	Excavated and dendritic Pt-Co nanocubes as efficient ethylene glycol and glycerol oxidation electrocatalysts. Applied Catalysis B: Environmental, 2019, 258, 117951.	10.8	48
1807	GPU-based DPSO algorithm for structural optimization of Pt-Co bimetallic nanoparticles. Physics Letters, Section A: General, Atomic and Solid State Physics, 2019, 383, 3123-3133.	0.9	4
1808	Structurally Ordered Low-Pt Intermetallic Electrocatalysts toward Durably High Oxygen Reduction Reaction Activity. Advanced Functional Materials, 2019, 29, 1902987.	7.8	124
1809	Boosting Fuel Cell Durability under Shut-Down/Start-Up Conditions Using a Hydrogen Oxidation-Selective Metal-Carbon Hybrid Core-Shell Catalyst. ACS Applied Materials & Interfaces, 2019, 11, 27735-27742.	4.0	35
1810	Tuning the Electrocatalytic Oxygen Reduction Reaction Activity of Pt-Co Nanocrystals by Cobalt Concentration with Atomic-Scale Understanding. ACS Applied Materials & Interfaces, 2019, 11, 26789-26797.	4.0	40
1811	Interfacial effects in supported catalysts for electrocatalysis. Journal of Materials Chemistry A, 2019, 7, 23432-23450.	5.2	94
1812	Nanostructured Co-based bifunctional electrocatalysts for energy conversion and storage: current status and perspectives. Journal of Materials Chemistry A, 2019, 7, 18674-18707.	5.2	277
1813	Nanocatalytic Medicine. Advanced Materials, 2019, 31, e1901778.	11.1	396
1814	Converting H <sup>+</sup> from coordinated water into H <sup>•</sup> enables super facile synthesis of LiBH <sub>4</sub> . Green Chemistry, 2019, 21, 4380-4387.	4.6	149

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1818	Modeling with DFT and Chemical Descriptors Approach for the Development of Catalytic Alloys for PEMFCs. , 0, , .		3
1819	One-Dimensional Single-Chain Nb <sub>2</sub> Se <sub>9</sub> as Efficient Electrocatalyst for Hydrogen Evolution Reaction. ACS Applied Energy Materials, 2019, 2, 5785-5792.	2.5	18
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1821	Inner space- and architecture-controlled nanoframes for efficient electro-oxidation of liquid fuels. Journal of Materials Chemistry A, 2019, 7, 19280-19289.	5.2	12
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1823	Recent advancements in Pt-nanostructure-based electrocatalysts for the oxygen reduction reaction. Catalysis Science and Technology, 2019, 9, 4835-4863.	2.1	73
1824	Intermetallic Nanoparticles: Synthetic Control and Their Enhanced Electrocatalysis. Accounts of Chemical Research, 2019, 52, 2015-2025.	7.6	200
1825	Composition, Structure and Stability of PtCu/C Electrocatalysts with Non-uniform Distribution of Metals in Nanoparticles. Springer Proceedings in Physics, 2019, , 31-46.	0.1	0
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1828	Building Random Alloy Surfaces from Intermetallic Seeds: A General Route to Strain-Engineered Electrocatalysts with High Durability. ACS Applied Nano Materials, 2019, 2, 4538-4546.	2.4	15
1829	Electrocatalytic Oxygen Reduction Reaction over the Au <sub>22</sub> (L <sup>8</sup> ) <sub>6</sub> Nanocluster with Promising Activity: A DFT Study. Journal of Physical Chemistry C, 2019, 123, 27116-27123.	1.5	19
1830	Improved Oxygen Reduction Activity in Heteronuclear FeCo-Codoped Graphene: A Theoretical Study. ACS Sustainable Chemistry and Engineering, 2019, 7, 17273-17281.	3.2	56
1831	Tungsten-Doped Li <sub>2</sub> O@PtCo Ultrasmall Nanoparticles as a High-Performance Fuel Cell Cathode. Angewandte Chemie, 2019, 131, 15617-15623.	1.6	30
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1834	Alumina supported nano-platinum on copper nanoparticles prepared via galvanic displacement reaction for preferential carbon monoxide oxidation in presence of hydrogen. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 28757-28768.	3.8	8
1835	Periodic table of elements and nanotechnology. <i>Mendeleev Communications</i> , 2019, 29, 479-485.	0.6	15
1836	A graphite sheet modified with reduced graphene oxide-hyper-branched gold nanostructure as a highly efficient electrocatalyst for hydrogen evolution reaction. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 29922-29932.	3.8	9
1837	Monodispersed silver-palladium nanoparticles for ethanol oxidation reaction achieved by controllable electrochemical synthesis from ionic liquid microemulsions. <i>Journal of Colloid and Interface Science</i> , 2019, 557, 450-457.	5.0	18
1838	The Effect of Anions and pH on the Activity and Selectivity of an Annealed Polycrystalline Au Film Electrode in the Oxygen Reduction Reaction—Revisited. <i>ChemPhysChem</i> , 2019, 20, 3276-3288.	1.0	22
1839	The effect of SnO <sub>2</sub> (110) supports on the geometrical and electronic properties of platinum nanoparticles. <i>SN Applied Sciences</i> , 2019, 1, 1.	1.5	13
1840	An alternate aqueous phase synthesis of the Pt <sub>3</sub> Co/C catalyst towards efficient oxygen reduction reaction. <i>Chinese Journal of Catalysis</i> , 2019, 40, 1895-1903.	6.9	21
1841	Tuning Electronic Structure and Lattice Diffusion Barrier of Ternary Pt-In-Ni for Both Improved Activity and Stability Properties in Oxygen Reduction Electrocatalysis. <i>ACS Catalysis</i> , 2019, 9, 11431-11437.	5.5	36
1842	Preparation of Nanostructured Tin(IV) Oxide and Supported Platinum Electrocatalysts Based on It. <i>Inorganic Materials</i> , 2019, 55, 1125-1131.	0.2	0
1843	Engineering bunched Pt-Ni alloy nanocages for efficient oxygen reduction in practical fuel cells. <i>Science</i> , 2019, 366, 850-856.	6.0	1,005
1844	Direct Hybridization of Noble Metal Nanostructures on 2D Metal-Organic Framework Nanosheets To Catalyze Hydrogen Evolution. <i>Nano Letters</i> , 2019, 19, 8447-8453.	4.5	160
1846	Efficient and Durable 3D Self-Supported Nitrogen-Doped Carbon-Coupled Nickel/Cobalt Phosphide Electrodes: Stoichiometric Ratio Regulated Phase and Morphology-Dependent Overall Water Splitting Performance. <i>Advanced Functional Materials</i> , 2019, 29, 1906316.	7.8	103
1847	Tungsten-Doped L <sub>1</sub> PtCo Ultrasmall Nanoparticles as a High-Performance Fuel Cell Cathode. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 15471-15477.	7.2	150
1848	Formic acid oxidation on AuPd core-shell electrocatalysts: Effect of surface electronic structure. <i>Electrochimica Acta</i> , 2019, 327, 134977.	2.6	18
1849	Copper-Gold Interactions Enhancing Formate Production from Electrochemical CO <sub>2</sub> Reduction. <i>ACS Catalysis</i> , 2019, 9, 10894-10898.	5.5	58
1850	Recent Progress in Precious Metal-Free Carbon-Based Materials towards the Oxygen Reduction Reaction: Activity, Stability, and Anti-Poisoning. <i>Chemistry - A European Journal</i> , 2020, 26, 3973-3990.	1.7	36
1851	Facile Synthesis of Quaternary Structurally Ordered L <sub>1</sub> -Pt(Fe, Co, Ni) <sub>3</sub> Nanoparticles with Low Content of Platinum as Efficient Oxygen Reduction Reaction Electrocatalysts. <i>ACS Omega</i> , 2019, 4, 17894-17902.	1.6	11

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1853	DFT calculations: A powerful tool for better understanding of electrocatalytic oxygen reduction reactions on Pt-based metallic catalysts. <i>Computational Materials Science</i> , 2019, 170, 109202.	1.4	59
1854	A density functional theory study of the oxygen reduction reaction on the (111) and (100) surfaces of cobalt(II) oxide. <i>Progress in Reaction Kinetics and Mechanism</i> , 2019, 44, 122-131.	1.1	6
1855	Molecular Modulation of a Molybdenum-Selenium Cluster by Sulfur Substitution To Enhance the Hydrogen Evolution Reaction. <i>Inorganic Chemistry</i> , 2019, 58, 12415-12421.	1.9	9
1856	Tungsten phosphide (WP) nanoparticles with tunable crystallinity, W vacancies, and electronic structures for hydrogen production. <i>Electrochimica Acta</i> , 2019, 323, 134798.	2.6	35
1857	Bimetallic MOF-templated synthesis of alloy nanoparticle-embedded porous carbons for oxygen evolution and reduction reactions. <i>Dalton Transactions</i> , 2019, 48, 13953-13959.	1.6	19
1858	Trifunctional Fishbone-like PtCo/Ir Enables High-Performance Zinc-Air Batteries to Drive the Water-Splitting Catalysis. <i>Chemistry of Materials</i> , 2019, 31, 8136-8144.	3.2	55
1859	Sequential Capacitive Deposition of Ionic Liquids for Conformal Thin Film Coatings on Oxygen Reduction Reaction Electrocatalysts. <i>ACS Catalysis</i> , 2019, 9, 9311-9316.	5.5	42
1860	Controlling Near-Surface Ni Composition in Octahedral PtNi(Mo) Nanoparticles by Mo Doping for a Highly Active Oxygen Reduction Reaction Catalyst. <i>Nano Letters</i> , 2019, 19, 6876-6885.	4.5	95
1861	Facile Universal Mass Production Strategy to Sub-3 nm Monodisperse Nanocrystals of Transition-Metal Oxides and Their Excellent Cyclability for Li-Ion Storage. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 37867-37874.	4.0	23
1862	Bimetallic Composition-Promoted Electrocatalytic Hydrodechlorination Reaction on Silver-Palladium Alloy Nanoparticles. <i>ACS Catalysis</i> , 2019, 9, 10803-10811.	5.5	115
1863	Modulation of Phosphorene for Optimal Hydrogen Evolution Reaction. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 37787-37795.	4.0	38
1864	NiS <sub>2</sub> /MoS <sub>2</sub> on carbon cloth as a bifunctional electrocatalyst for overall water splitting. <i>Electrochimica Acta</i> , 2019, 326, 134983.	2.6	52
1865	Volcano Trend in Electrocatalytic CO <sub>2</sub> Reduction Activity over Atomically Dispersed Metal Sites on Nitrogen-Doped Carbon. <i>ACS Catalysis</i> , 2019, 9, 10426-10439.	5.5	142
1866	Recent Progresses in Oxygen Reduction Reaction Electrocatalysts for Electrochemical Energy Applications. <i>Electrochemical Energy Reviews</i> , 2019, 2, 518-538.	13.1	176
1867	Degradation of core-shell Pt <sub>3</sub> Co catalysts in proton exchange membrane fuel cells (PEMFCs) studied by mathematical modeling. <i>Electrochimica Acta</i> , 2019, 323, 134751.	2.6	22
1868	Insight into the Mechanism of Oxygen Reduction Reaction on Micro/Mesoporous Carbons: Ultramicropores versus Nitrogen-Containing Catalytic Centers in Ordered Pore Structure. <i>ACS Applied Energy Materials</i> , 2019, 2, 7412-7424.	2.5	32
1869	Nanotechnology Facets of the Periodic Table of Elements. <i>ACS Nano</i> , 2019, 13, 10879-10886.	7.3	26

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1871	Multiple Reaction Paths for CO Oxidation on a 2D SnO <sub>x</sub> NanoOxide on the Pt(110) Surface: Intrinsic Reactivity and Spillover. <i>Advanced Materials Interfaces</i> , 2019, 6, 1801874.	1.9	7
1872	A universal synthesis strategy for P-rich noble metal diphosphide-based electrocatalysts for the hydrogen evolution reaction. <i>Energy and Environmental Science</i> , 2019, 12, 952-957.	15.6	397
1873	Revealing the atomic ordering of binary intermetallics using in situ heating techniques at multilength scales. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 1974-1983.	3.3	98
1874	Nanoscale origins of super-capacitance phenomena. <i>Journal of Power Sources</i> , 2019, 414, 420-434.	4.0	48
1875	Graphene dot armored PtMo nanosponge as a highly efficient and stable electrocatalyst for hydrogen evolution reactions in both acidic and alkaline media. <i>Carbon</i> , 2019, 146, 116-124.	5.4	33
1876	Hollow Nanospheres of Co/Ni Composite as an Efficient Nonprecious Electrocatalyst for Oxygen Reduction Reaction. <i>ChemistrySelect</i> , 2019, 4, 1700-1705.	0.7	2
1877	Facile One-Pot Synthesis of Pd@Pt <sub>1L</sub> Octahedra with Enhanced Activity and Durability toward Oxygen Reduction. <i>Chemistry of Materials</i> , 2019, 31, 1370-1380.	3.2	41
1878	Unraveling the relationship between the morphologies of metal-organic frameworks and the properties of their derived carbon materials. <i>Dalton Transactions</i> , 2019, 48, 7211-7217.	1.6	23
1879	Boosting electrochemical water splitting <i>via</i> ternary NiMoCo hybrid nanowire arrays. <i>Journal of Materials Chemistry A</i> , 2019, 7, 2156-2164.	5.2	163
1880	The Role of Supported Atomically Distributed Metal Species in Electrochemistry and How to Create Them. <i>ChemElectroChem</i> , 2019, 6, 3860-3877.	1.7	11
1881	Utilizing the Space-Charge Region of the FeNi-LDH/CoP p-n Junction to Promote Performance in Oxygen Evolution Electrocatalysis. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 11903-11909.	7.2	329
1882	Recent advances in metal sulfides: from controlled fabrication to electrocatalytic, photocatalytic and photoelectrochemical water splitting and beyond. <i>Chemical Society Reviews</i> , 2019, 48, 4178-4280.	18.7	810
1883	Utilizing the Space-Charge Region of the FeNi-LDH/CoP p-n Junction to Promote Performance in Oxygen Evolution Electrocatalysis. <i>Angewandte Chemie</i> , 2019, 131, 12029-12035.	1.6	17
1884	Tuning electronic and composition effects in ruthenium-copper alloy nanoparticles anchored on carbon nanofibers for rechargeable Li-CO <sub>2</sub> batteries. <i>Chemical Engineering Journal</i> , 2019, 375, 121978.	6.6	44
1885	The application of CeO <sub>2</sub> -based materials in electrocatalysis. <i>Journal of Materials Chemistry A</i> , 2019, 7, 17675-17702.	5.2	128
1886	Sub-15-nm Pd@PtCu concave octahedron with enriched atomic steps as enhanced oxygen reduction electrocatalyst. <i>Journal of Power Sources</i> , 2019, 434, 226742.	4.0	10
1887	Electrochemical synthesis of hydrogen peroxide from water and oxygen. <i>Nature Reviews Chemistry</i> , 2019, 3, 442-458.	13.8	544

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1889	Ion exchange: an advanced synthetic method for complex nanoparticles. <i>Nano Convergence</i> , 2019, 6, 17.	6.3	55
1890	Making an ultralow platinum content bimetallic catalyst on carbon fibres for electro-oxidation of ammonia in wastewater. <i>Sustainable Energy and Fuels</i> , 2019, 3, 2111-2124.	2.5	20
1891	Promotion of hydrogen peroxide production on graphene-supported atomically dispersed platinum: Effects of size on oxygen reduction reaction pathway. <i>Journal of Power Sources</i> , 2019, 435, 226771.	4.0	40
1892	Facile charge transfer in fibrous PdPt bimetallic nanocube counter electrodes. <i>New Journal of Chemistry</i> , 2019, 43, 11148-11156.	1.4	5
1893	Pt-Based Nanocrystal for Electrocatalytic Oxygen Reduction. <i>Advanced Materials</i> , 2019, 31, e1808115.	11.1	260
1894	Room temperature synthesis of Pd <sub>x</sub> Ni <sub>100-x</sub> nanoalloy: superior catalyst for electro-oxidation of methanol and ethanol. <i>Journal of Applied Electrochemistry</i> , 2019, 49, 681-691.	1.5	7
1895	Surface Investigation on Electrochemically Deposited Lead on Gold. <i>Surfaces</i> , 2019, 2, 56-68.	1.0	4
1896	Tweaking the Interplay among Galvanic Exchange, Oxidative Etching, and Seed-Mediated Deposition toward Architectural Control of Multimetallic Nanoelectrocatalysts. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 23482-23494.	4.0	13
1897	Insight into the design of defect electrocatalysts: From electronic structure to adsorption energy. <i>Materials Today</i> , 2019, 31, 47-68.	8.3	311
1898	Electrosynthesis of high-entropy metallic glass nanoparticles for designer, multi-functional electrocatalysis. <i>Nature Communications</i> , 2019, 10, 2650.	5.8	286
1899	Phase and Vacancy Modulation in Tungsten Oxide: Electrochemical Hydrogen Evolution. <i>ChemElectroChem</i> , 2019, 6, 3420-3428.	1.7	35
1900	Synthesis of Metallic Nanocrystals: From Noble Metals to Base Metals. <i>Materials</i> , 2019, 12, 1497.	1.3	14
1901	Electrodeposited Ni Co P hierarchical nanostructure as a cost-effective and durable electrocatalyst with superior activity for bifunctional water splitting. <i>Journal of Power Sources</i> , 2019, 429, 156-167.	4.0	120
1902	Synthesis of RGO-Supported Molybdenum Carbide (Mo <sub>2</sub> C-RGO) for Hydrogen Evolution Reaction under the Function of Poly(Ionic Liquid). <i>Industrial &amp; Engineering Chemistry Research</i> , 2019, 58, 8996-9005.	1.8	9
1903	First-principles study of the effect of compressive strain on oxygen adsorption in Pd/Ni/Cu-alloy-core@Pd/Ir-alloy-shell catalysts. <i>New Journal of Chemistry</i> , 2019, 43, 8195-8203.	1.4	7
1904	Enhanced the Hydrogen Evolution Performance by Ruthenium Nanoparticles Doped into Cobalt Phosphide Nanocages. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 9737-9742.	3.2	33
1905	How to Boost the Activity of the Monolayer Pt Supported on TiC Catalysts for Oxygen Reduction Reaction: A Density Functional Theory Study. <i>Materials</i> , 2019, 12, 1560.	1.3	3

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1907	Understanding the strain effect of Au@Pd nanocatalysts by <i>in situ</i> surface-enhanced Raman spectroscopy. <i>Chemical Communications</i> , 2019, 55, 8824-8827.	2.2	11
1908	Composition- and shape-controlled synthesis of the PtNi alloy nanotubes with enhanced activity and durability toward oxygen reduction reaction. <i>Journal of Power Sources</i> , 2019, 429, 1-8.	4.0	19
1909	Theoretical Resolution of the Exceptional Oxygen Reduction Activity of Au(100) in Alkaline Media. <i>ACS Catalysis</i> , 2019, 9, 5567-5573.	5.5	93
1910	Nanostructured photoanode and counter electrode materials for efficient Dye-Sensitized Solar Cells (DSSCs). <i>Solar Energy</i> , 2019, 185, 165-188.	2.9	128
1911	Surface-engineered mesoporous Pt nanodendrites with Ni dopant for highly enhanced catalytic performance in hydrogen evolution reaction. <i>Journal of Materials Chemistry A</i> , 2019, 7, 12800-12807.	5.2	45
1912	Tuning perovskite oxides by strain: Electronic structure, properties, and functions in (electro)catalysis and ferroelectricity. <i>Materials Today</i> , 2019, 31, 100-118.	8.3	169
1913	One-Pot Synthesis of Reactive Base Metal Nanoparticles in Multifunctional Pyridine. <i>ACS Omega</i> , 2019, 4, 7096-7102.	1.6	9
1914	Atomic Arrangement Engineering of Metallic Nanocrystals for Energy-Conversion Electrocatalysis. <i>Joule</i> , 2019, 3, 956-991.	11.7	197
1915	Pt-rare earth metal alloy/metal oxide catalysts for oxygen reduction and alcohol oxidation reactions: an overview. <i>Sustainable Energy and Fuels</i> , 2019, 3, 1866-1891.	2.5	82
1916	Sputtered Platinum Thin-films for Oxygen Reduction in Gas Diffusion Electrodes: A Model System for Studies under Realistic Reaction Conditions. <i>Surfaces</i> , 2019, 2, 336-348.	1.0	27
1917	Catalytic Ru containing Pt <sub>3</sub> Mn nanocrystals enclosed with high-indexed facets: Surface alloyed Ru makes Pt more active than Ru particles for ethylene glycol oxidation. <i>Applied Catalysis B: Environmental</i> , 2019, 253, 11-20.	10.8	60
1918	Nitrogen-Doped Cobalt Phosphide for Enhanced Hydrogen Evolution Activity. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 17359-17367.	4.0	40
1919	Changes in the oxidation state of Pt single-atom catalysts upon removal of chloride ligands and their effect for electrochemical reactions. <i>Chemical Communications</i> , 2019, 55, 6389-6392.	2.2	44
1920	Atomically Resolved Anisotropic Electrochemical Shaping of Nano-electrocatalyst. <i>Nano Letters</i> , 2019, 19, 4919-4927.	4.5	33
1921	Dealloyed PtNi-Core–Shell Nanocatalysts Enable Significant Lowering of Pt Electrode Content in Direct Methanol Fuel Cells. <i>ACS Catalysis</i> , 2019, 9, 3764-3772.	5.5	66
1922	PtM (M = Co, Ni) Mesoporous Nanotubes as Bifunctional Electrocatalysts for Oxygen Reduction and Methanol Oxidation. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 7960-7968.	3.2	58
1923	One-pot aqueous synthesis of ultrathin trimetallic PdPtCu nanosheets for the electrooxidation of alcohols. <i>Green Chemistry</i> , 2019, 21, 2367-2374.	4.6	68



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1925	Synthesis and performance optimization of ultrathin two-dimensional CoFePt alloy materials <i>via in situ</i> topotactic conversion for the hydrogen evolution reaction. <i>Journal of Materials Chemistry A</i> , 2019, 7, 9517-9522.	5.2	17
1926	Laser-Induced Graphitic Shells for Enhanced Durability and Highly Active Oxygen Reduction Reaction. <i>ACS Applied Energy Materials</i> , 2019, 2, 2552-2560.	2.5	2
1927	Synthesis and Characterization of High-Purity Ultrafine Platinum Particles by Chemical Refining Method. <i>Journal of Nanomaterials</i> , 2019, 2019, 1-8.	1.5	0
1928	Cobalt based metal-organic frameworks and their derivatives for electrochemical energy conversion and storage. <i>Chemical Engineering Journal</i> , 2019, 370, 37-59.	6.6	96
1930	Sub-6 nm Fully Ordered L <sub>1</sub> CoPtNiCo Nanoparticles Enhance Oxygen Reduction via Co Doping Induced Ferromagnetism Enhancement and Optimized Surface Strain. <i>Advanced Energy Materials</i> , 2019, 9, 1803771.	10.2	127
1931	Design of high efficient oxygen reduction catalyst from the transition metal dimer phthalocyanine monolayer. <i>Applied Surface Science</i> , 2019, 480, 905-911.	3.1	12
1932	Atomically Thin Metal Films on Foreign Substrates: From Lattice Mismatch to Electrocatalytic Activity. <i>ACS Catalysis</i> , 2019, 9, 3467-3481.	5.5	25
1933	Cobalt-Ruthenium Nanoalloys Parceled in Porous Nitrogen-Doped Graphene as Highly Efficient Bifunctional Catalysts for Hydrogen Evolution Reaction and Hydrolysis of Ammonia Borane. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 7014-7023.	3.2	95
1935	Entropy-Maximized Synthesis of Multimetallic Nanoparticle Catalysts via a Ultrasonication-Assisted Wet Chemistry Method under Ambient Conditions. <i>Advanced Materials Interfaces</i> , 2019, 6, 1900015.	1.9	130
1936	<i>In situ</i> N-doped carbon modified (Co <sub>0.5</sub> Ni <sub>0.5</sub> ) <sub>9</sub> S <sub>8</sub> solid-solution hollow spheres as high-capacity anodes for sodium-ion batteries. <i>Journal of Materials Chemistry A</i> , 2019, 7, 8268-8276.	5.2	79
1937	Deviations from Vegard's law and evolution of the electrocatalytic activity and stability of Pt-based nanoalloys inside fuel cells by <i>in operando</i> X-ray spectroscopy and total scattering. <i>Nanoscale</i> , 2019, 11, 5512-5525.	2.8	33
1938	Facile and Large-Scale Fabrication of Sub-3-nm PtNi Nanoparticles Supported on Porous Carbon Sheet: A Bifunctional Material for the Hydrogen Evolution Reaction and Hydrogenation. <i>Chemistry - A European Journal</i> , 2019, 25, 7191-7200.	1.7	18
1939	Increased nucleation sites in nickel foam for the synthesis of MoP@Ni <sub>3</sub> P/NF nanosheets for bifunctional water splitting. <i>Applied Surface Science</i> , 2019, 481, 1403-1411.	3.1	46
1940	Direct One-pot Synthesis of Carbon Supported AgPt Alloy Nanoparticles as High Performance Electrocatalyst for Fuel Cell Application. <i>Fuel Cells</i> , 2019, 19, 169-176.	1.5	7
1941	High-Indexed PtNi Alloy Skin Spiraled on Pd Nanowires for Highly Efficient Oxygen Reduction Reaction Catalysis. <i>Small</i> , 2019, 15, e1900288.	5.2	73
1942	Morphology Evolution during Delithiation of Li-Pb Alloys: Oscillatory Electrochemical Behavior. <i>Journal of the Electrochemical Society</i> , 2019, 166, C108-C114.	1.3	6
1943	Coadsorption of CO and O over strained metal surfaces. <i>Chemical Physics Letters</i> , 2019, 722, 18-25.	1.2	8

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1945	Atomic scale insights on the electronic and geometric effects in the electro-oxidation of CO on Pt <sub>x</sub> Ru <sub>1-x</sub> /Ru(0001) surface alloys. <i>Electrochimica Acta</i> , 2019, 306, 516-528.	2.6	9
1946	Understanding Rechargeable Li <sup>+</sup> O <sub>2</sub> Batteries via First-Principles Computations. <i>Batteries and Supercaps</i> , 2019, 2, 498-508.	2.4	31
1947	Mesoporous Platinum Prepared by Electrodeposition for Ultralow Loading Proton Exchange Membrane Fuel Cells. <i>Scientific Reports</i> , 2019, 9, 4161.	1.6	22
1948	Electrocatalytic Activities towards the Electrochemical Oxidation of Formic Acid and Oxygen Reduction Reactions over Bimetallic, Trimetallic and Core-Shell-Structured Pd-Based Materials. <i>Inorganics</i> , 2019, 7, 36.	1.2	23
1949	Selective adsorption of trace H <sub>2</sub> O over O <sub>2</sub> on Pt/Fe/Pt(111) surface of Pt-Fe catalyst. <i>Applied Surface Science</i> , 2019, 476, 387-390.	3.1	2
1950	Achieving Highly Durable Random Alloy Nanocatalysts through Intermetallic Cores. <i>ACS Nano</i> , 2019, 13, 4008-4017.	7.3	37
1951	Electrocatalytic evaluation of sorbitol oxidation as a promising fuel in energy conversion using Au/C, Pd/C and Au-Pd/C synthesized through ionic liquids. <i>Fuel</i> , 2019, 250, 103-116.	3.4	17
1954	Towards maximized utilization of iridium for the acidic oxygen evolution reaction. <i>Nano Research</i> , 2019, 12, 2275-2280.	5.8	89
1955	Improving the electrochemical oxidation of formic acid by tuning the electronic properties of Pd-based bimetallic nanoparticles. <i>Applied Catalysis B: Environmental</i> , 2019, 254, 685-692.	10.8	73
1956	Nanorod CoFe <sub>2</sub> O <sub>4</sub> modified activated carbon as an efficient electrocatalyst to improve the performance of air cathode microbial fuel cell. <i>Journal of Electroanalytical Chemistry</i> , 2019, 840, 134-143.	1.9	19
1957	Theory-guided materials design: two-dimensional MXenes in electro- and photocatalysis. <i>Nanoscale Horizons</i> , 2019, 4, 809-827.	4.1	218
1958	Exposing Cu-Rich {110} Active Facets in PtCu nanostars for boosting electrochemical performance toward multiple liquid fuels electrooxidation. <i>Nano Research</i> , 2019, 12, 1147-1153.	5.8	21
1959	Review of Metal Catalysts for Oxygen Reduction Reaction: From Nanoscale Engineering to Atomic Design. <i>CheM</i> , 2019, 5, 1486-1511.	5.8	544
1960	Highly active zigzag-like Pt-Zn alloy nanowires with high-index facets for alcohol electrooxidation. <i>Nano Research</i> , 2019, 12, 1173-1179.	5.8	65
1961	Platinum/Nickel Bicarbonate Heterostructures towards Accelerated Hydrogen Evolution under Alkaline Conditions. <i>Angewandte Chemie</i> , 2019, 131, 5486-5491.	1.6	30
1962	Two Penta-Supertetrahedral Cluster-Based Chalcogenide Open Frameworks: Effect of the Cluster Spatial Connectivity on the Electron-Transport Efficiency. <i>Inorganic Chemistry</i> , 2019, 58, 3582-3585.	1.9	18
1963	Advanced Catalysts Derived from Composition-Segregated Platinum-Nickel Nanostructures: New Opportunities and Challenges. <i>Advanced Functional Materials</i> , 2019, 29, 1808161.	7.8	38

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1964	Unified Catalyst for Efficient and Stable Hydrogen Production by Both the Electrolysis of Water and the Hydrolysis of Ammonia Borane. <i>Advanced Sustainable Systems</i> , 2019, 3, 1800161.	2.7	45
1965	Platinum Group Nanowires for Efficient Electrocatalysis. <i>Small Methods</i> , 2019, 3, 1800545.	4.6	53
1966	Key Factors for Simultaneous Improvements of Performance and Durability of Core-Shell Pt <sub>3</sub> /Ni/Carbon Electrocatalysts Toward Superior Polymer Electrolyte Fuel Cell. <i>Chemical Record</i> , 2019, 19, 1337-1353.	2.9	5
1967	Recent Advances on Controlled Synthesis and Engineering of Hollow Alloyed Nanotubes for Electrocatalysis. <i>Advanced Materials</i> , 2019, 31, e1803503.	11.1	81
1968	Au-doped PtCo/C catalyst preventing Co leaching for proton exchange membrane fuel cells. <i>Applied Catalysis B: Environmental</i> , 2019, 247, 142-149.	10.8	76
1969	Tailoring Active Sites in Mesoporous Defect-Rich NC/V <sub>o</sub> -WON Heterostructure Array for Superior Electrocatalytic Hydrogen Evolution. <i>Advanced Energy Materials</i> , 2019, 9, 1803693.	10.2	66
1970	Catalytic Chemistry Predicted by a Charge Polarization Descriptor: Synergistic O <sub>2</sub> Activation and CO Oxidation by Au-Cu Bimetallic Clusters on TiO <sub>2</sub> (101). <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 9629-9640.	4.0	28
1971	eg occupancy as an effective descriptor for the catalytic activity of perovskite oxide-based peroxidase mimics. <i>Nature Communications</i> , 2019, 10, 704.	5.8	199
1972	Transition-Metal-Doped Ru Bifunctional Nanocrystals for Overall Water Splitting in Acidic Environments. <i>Advanced Materials</i> , 2019, 31, e1900510.	11.1	449
1973	Ultra-small Ru <sub>x</sub> nanoparticles on graphene supported schiff-based networks for all pH hydrogen evolution. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 5717-5724.	3.8	10
1974	Size dependent stability and surface energy of amorphous FePt nanoalloy. <i>Journal of Alloys and Compounds</i> , 2019, 788, 787-798.	2.8	5
1975	Remarkable Improvement of the Catalytic Performance of PtFe Nanoparticles by Structural Ordering and Doping. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 11527-11536.	4.0	30
1976	Oriented arrays of Co <sub>3</sub> O <sub>4</sub> nanoneedles for highly efficient electrocatalytic water oxidation. <i>Chemical Communications</i> , 2019, 55, 3971-3974.	2.2	19
1977	A Strategy for Increasing the Efficiency of the Oxygen Reduction Reaction in Mn-Doped Cobalt Ferrites. <i>Journal of the American Chemical Society</i> , 2019, 141, 4412-4421.	6.6	90
1978	Platinum/Nickel Bicarbonate Heterostructures towards Accelerated Hydrogen Evolution under Alkaline Conditions. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 5432-5437.	7.2	194
1979	Oxidation-Induced Atom Diffusion and Surface Restructuring in Faceted Ternary Pt-Cu-Ni Nanoparticles. <i>Chemistry of Materials</i> , 2019, 31, 1720-1728.	3.2	30
1980	The Features of the Electron Exchange of Ions with Metal Nanoclusters. <i>Moscow University Physics Bulletin (English Translation of Vestnik Moskovskogo Universiteta, Fizika)</i> , 2019, 74, 585-594.	0.1	10
1981	De-Alloyed PtCu/C Catalysts of Oxygen Electroreduction. <i>Russian Journal of Electrochemistry</i> , 2019, 55, 1258-1268.	0.3	11

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1982	PtFe Alloy Nanoparticles Confined on Carbon Nanotube Networks as Air Cathodes for Flexible and Wearable Energy Devices. <i>ACS Applied Nano Materials</i> , 2019, 2, 7870-7879.	2.4	22
1983	Facilitating charge transfer <i>via</i> a giant magnetoresistance effect for high-efficiency photocatalytic hydrogen production. <i>Chemical Communications</i> , 2019, 55, 14478-14481.	2.2	7
1984	Coupled nanocomposite Co <sub>5.47</sub> N@Co <sub>3</sub> Fe <sub>7</sub> inlaid in a tremella-like carbon framework as a highly efficient multifunctional electrocatalyst for oxygen transformation and overall water splitting. <i>Sustainable Energy and Fuels</i> , 2019, 3, 3538-3549.	2.5	12
1985	Single atom electrocatalysts supported on graphene or graphene-like carbons. <i>Chemical Society Reviews</i> , 2019, 48, 5207-5241.	18.7	441
1986	Leaching- and sintering-resistant hollow or structurally ordered intermetallic PtFe alloy catalysts for oxygen reduction reactions. <i>Nanoscale</i> , 2019, 11, 20115-20122.	2.8	48
1988	Compressive Strain in Core@Shell Au@Pd Nanoparticles Introduced by Lateral Confinement of Deformation Twinning to Enhance the Oxidation Reduction Reaction Performance. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 46902-46911.	4.0	25
1989	Composition-Tuned Pt-Skinned PtNi Bimetallic Clusters as Highly Efficient Methanol Dehydrogenation Catalysts. <i>Chemistry of Materials</i> , 2019, 31, 10040-10048.	3.2	28
1990	Water-Assisted Growth of Cobalt Oxide and Cobalt Hydroxide Overlayers on the Pt <sub>3</sub> Co(111) Surface. <i>ACS Applied Energy Materials</i> , 2019, 2, 8580-8586.	2.5	13
1991	Nanostructured Platinum Catalyst Supported by Titanium Dioxide. <i>Russian Journal of Electrochemistry</i> , 2019, 55, 1021-1030.	0.3	3
1992	Interfacial Engineering in PtNiCo/NiCoS Nanowires for Enhanced Electrocatalysis and Electroanalysis. <i>Chemistry - A European Journal</i> , 2020, 26, 4032-4038.	1.7	16
1993	Activity Origin and Design Principles for Oxygen Reduction on Dual-Metal-Site Catalysts: A Combined Density Functional Theory and Machine Learning Study. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 7760-7766.	2.1	149
1994	Poly (3, 4-ethylene dioxythiophene) Supported Palladium Catalyst prepared by Galvanic Replacement Reaction for Methanol Tolerant Oxygen Reduction. <i>Scientific Reports</i> , 2019, 9, 19184.	1.6	11
1995	Synthesis of octahedral Pt@Ni@Ir yolk@shell nanoparticles and their catalysis in oxygen reduction and methanol oxidization under both acidic and alkaline conditions. <i>Nanoscale</i> , 2019, 11, 23206-23216.	2.8	24
1996	Sonochemical reduction method for synthesis of TiO <sub>2</sub> Pd nanocomposites and investigation of anode and cathode catalyst for ethanol oxidation and oxygen reduction reaction in alkaline medium. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 30705-30718.	3.8	10
1997	Solvation effects on DFT predictions of ORR activity on metal surfaces. <i>Catalysis Today</i> , 2019, 323, 35-43.	2.2	109
1998	Facile synthesis of trimetallic PtAuCu alloy nanowires as High Performance electrocatalysts for methanol oxidation reaction. <i>Journal of Alloys and Compounds</i> , 2019, 780, 504-511.	2.8	43
1999	Development of the applications of titanium nitride in fuel cells. <i>Materials Today Chemistry</i> , 2019, 11, 42-59.	1.7	17
2000	Recent Advances in Metallic Glass Nanostructures: Synthesis Strategies and Electrocatalytic Applications. <i>Advanced Materials</i> , 2019, 31, e1802120.	11.1	49

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2002	Efficient Bifunctional Polyalcohol Oxidation and Oxygen Reduction Electrocatalysts Enabled by Ultrathin PtPdM (M = Ni, Fe, Co) Nanosheets. <i>Advanced Energy Materials</i> , 2019, 9, 1800684.	10.2	112
2003	Nanoscale Structure Design for High-Performance Pt-Based ORR Catalysts. <i>Advanced Materials</i> , 2019, 31, e1802234.	11.1	478
2004	Pt nanoparticles embedded metal-organic framework nanosheets: A synergistic strategy towards bifunctional oxygen electrocatalysis. <i>Applied Catalysis B: Environmental</i> , 2019, 245, 389-398.	10.8	66
2005	Molybdenum carbide in-situ embedded into carbon nanosheets as efficient bifunctional electrocatalysts for overall water splitting. <i>Electrochimica Acta</i> , 2019, 298, 305-312.	2.6	66
2006	Alloy Nanocatalysts for the Electrochemical Oxygen Reduction (ORR) and the Direct Electrochemical Carbon Dioxide Reduction Reaction (CO <sub>2</sub> RR). <i>Advanced Materials</i> , 2019, 31, e1805617.	11.1	255
2007	Surface Atomic Regulation of Core-Shell Noble Metal Catalysts. <i>Chemistry - A European Journal</i> , 2019, 25, 5113-5127.	1.7	20
2008	Intermetallic PtBi core/ultrathin Pt shell nanoplates for efficient and stable methanol and ethanol electro-oxidation. <i>Nano Research</i> , 2019, 12, 429-436.	5.8	76
2009	Heteroatom-doped carbon dots based catalysts for oxygen reduction reactions. <i>Journal of Colloid and Interface Science</i> , 2019, 537, 716-724.	5.0	63
2010	Spark-based improved Basin-Hopping Monte Carlo algorithm for structural optimization of alloy clusters. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2019, 383, 464-470.	0.9	5
2011	Fe-porphyrin carbon matrix as a bifunctional catalyst for oxygen reduction and CO <sub>2</sub> reduction from theoretical perspective. <i>Molecular Physics</i> , 2019, 117, 1805-1812.	0.8	12
2012	Theoretical explanation of strong enhancement of alkali metal ion neutralization on Au nanoclusters. <i>Surface Science</i> , 2019, 681, 158-165.	0.8	10
2013	Laser-assisted synthesis of Fe-Cu oxide nanocrystals. <i>Applied Surface Science</i> , 2019, 469, 1007-1015.	3.1	11
2014	Metal alloy hybrid nanoparticles with enhanced catalytic activities in fuel cell applications. <i>Journal of Solid State Chemistry</i> , 2019, 270, 295-303.	1.4	26
2015	Ultrafine Ruthenium Oxide Nanoparticles Supported on Molybdenum Oxide Nanosheets as Highly Efficient Electrocatalyst for Hydrogen Evolution in Acidic Medium. <i>ChemCatChem</i> , 2019, 11, 1495-1502.	1.8	22
2016	Cu-Pd alloy nanoparticles as highly selective catalysts for efficient electrochemical reduction of CO <sub>2</sub> to CO. <i>Applied Catalysis B: Environmental</i> , 2019, 246, 82-88.	10.8	167
2017	Designed synthesis of highly catalytic Ni-Pt nanoparticles for fuel cell applications. <i>SN Applied Sciences</i> , 2019, 1, 1.	1.5	14
2018	Effect of Surface Ni on Oxygen Reduction Reaction in Dealloyed Nanoporous Pt-Ni. <i>Industrial &amp; Engineering Chemistry Research</i> , 2019, 58, 7438-7447.	1.8	9

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2021	Optimizing the structural configuration of FePt-FeOx nanoparticles at the atomic scale by tuning the post-synthetic conditions. Nano Energy, 2019, 55, 441-446.	8.2	10
2022	Janus electrode with simultaneous management on gas and liquid transport for boosting oxygen reduction reaction. Nano Research, 2019, 12, 177-182.	5.8	43
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2024	Electrochemical Degradation of Pt@Ni Nanocatalysts: An Identical Location Aberration-Corrected Scanning Transmission Electron Microscopy Study. Nano Letters, 2019, 19, 46-53.	4.5	25
2025	Potential-Dynamic Surface Chemistry Controls the Electrocatalytic Processes of Ethanol Oxidation on Gold Surfaces. ACS Energy Letters, 2019, 4, 215-221.	8.8	45
2026	Face-centered tetragonal (FCT) Fe and Co alloys of Pt as catalysts for the oxygen reduction reaction (ORR): A DFT study. Journal of Chemical Physics, 2019, 150, 041704.	1.2	29
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2028	Structurally Ordered Fe <sub>3</sub> Pt Nanoparticles on Robust Nitride Support as a High Performance Catalyst for the Oxygen Reduction Reaction. Advanced Energy Materials, 2019, 9, 1803040.	10.2	96
2029	Polymer Electrolyte Membrane (PEM) Fuel Cells: Automotive Applications. , 2019, , 135-171.		4
2030	X-Ray Scattering and Imaging Studies of Electrode Structure and Dynamics. Chemical Record, 2019, 19, 1220-1232.	2.9	5
2031	Platinum as an electrocatalyst: Effect of morphological aspects of Pt/Pt-based materials. Materials Science and Technology, 2019, 35, 1-11.	0.8	30
2032	Nitrogen-doped hierarchically porous carbon nanopolyhedras derived from core-shell ZIF-8@ZIF-8 single crystals for enhanced oxygen reduction reaction. Catalysis Today, 2019, 327, 366-373.	2.2	47
2033	Low-Cost Counter-Electrode Materials for Dye-Sensitized and Perovskite Solar Cells. Advanced Materials, 2020, 32, e1806478.	11.1	99
2034	Effect of iron precursor on the activity and stability of PtFe/C catalyst for oxygen reduction reaction. Journal of Alloys and Compounds, 2020, 814, 152212.	2.8	19
2035	Mesoporous graphitic carbon nitride-supported binary MPt (M: Co, Ni, Cu) nanoalloys as electrocatalysts for borohydride oxidation and hydrogen evolution reaction. Catalysis Today, 2020, 357, 291-301.	2.2	26
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2038	Activity and degradation study of an Fe-N-C catalyst for ORR in Direct Methanol Fuel Cell (DMFC). <i>Applied Catalysis B: Environmental</i> , 2020, 262, 118217.	10.8	113
2039	MOF-derived Co <sub>9</sub> S <sub>8</sub> /MoS <sub>2</sub> embedded in tri-doped carbon hybrids for efficient electrocatalytic hydrogen evolution. <i>Journal of Energy Chemistry</i> , 2020, 44, 90-96.	7.1	32
2040	Interface modulation of twinned PtFe nanoplates branched 3D architecture for oxygen reduction catalysis. <i>Science Bulletin</i> , 2020, 65, 97-104.	4.3	42
2041	String of pyrolyzed ZIF-67 particles on carbon fibers for high-performance electrocatalysis. <i>Energy Storage Materials</i> , 2020, 25, 137-144.	9.5	102
2042	Operando observations of reactive metal-oxide structure formation on the Pt <sub>3</sub> Ni(111) surface at near-ambient pressure. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2020, 238, 146857.	0.8	6
2043	Alkaline hydrogen electrode and oxygen reduction reaction on Pt <sub>x</sub> Ni nanoalloys. <i>Journal of Electroanalytical Chemistry</i> , 2020, 857, 113449.	1.9	20
2044	Platinum-group-metal catalysts for proton exchange membrane fuel cells: From catalyst design to electrode structure optimization. <i>EnergyChem</i> , 2020, 2, 100023.	10.1	138
2045	Highly Active Carbon Supported PtCu Electrocatalysts for PEMFCs by <i>in situ</i> Supercritical Deposition Coupled with Electrochemical Dealloying. <i>Fuel Cells</i> , 2020, 20, 285-299.	1.5	19
2046	Recent progress of carbon dots and carbon nanotubes applied in oxygen reduction reaction of fuel cell for transportation. <i>Applied Energy</i> , 2020, 257, 114027.	5.1	101
2047	Continuous Flow Routes toward Designer Metal Nanocatalysts. <i>Advanced Energy Materials</i> , 2020, 10, 1902051.	10.2	13
2048	Graphene-cobalt based oxygen electrocatalysts. <i>Catalysis Today</i> , 2020, 358, 184-195.	2.2	6
2049	Annealing driven positive and negative exchange bias in Fe-Cu-Pt heterostructures at room temperature. <i>Journal of Alloys and Compounds</i> , 2020, 815, 152640.	2.8	6
2050	Recent Advances in Electrocatalytic Hydrogen Evolution Using Nanoparticles. <i>Chemical Reviews</i> , 2020, 120, 851-918.	23.0	1,767
2051	Dielectric relaxation and local domain structures of ferroelectric PIMNT and PMNT single crystals. <i>Journal of the American Ceramic Society</i> , 2020, 103, 1744-1754.	1.9	7
2052	Preparation of self-nitrogen-doped porous carbon nanofibers and their supported PtPd alloy catalysts for oxygen reduction reaction. <i>Journal of Solid State Electrochemistry</i> , 2020, 24, 195-206.	1.2	10
2053	Effect of dislocation cell walls on hydrogen adsorption, hydrogen trapping and hydrogen embrittlement resistance. <i>Corrosion Science</i> , 2020, 166, 108428.	3.0	65
2054	Composition Modulation of Pt-Based Nanowire Electrocatalysts Enhances Methanol Oxidation Performance. <i>Inorganic Chemistry</i> , 2020, 59, 1376-1382.	1.9	11

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2056	A unique pathway of PtNi nanoparticle formation observed with liquid cell transmission electron microscopy. <i>Nanoscale</i> , 2020, 12, 1414-1418.	2.8	7
2057	Enhanced hydrogen generation performance of CaMg <sub>2</sub> -based materials by ball milling. <i>Inorganic Chemistry Frontiers</i> , 2020, 7, 918-929.	3.0	13
2058	A vacuum impregnation method for synthesizing octahedral Pt <sub>2</sub> CuNi nanoparticles on mesoporous carbon support and the oxygen reduction reaction electrocatalytic properties. <i>Journal of Colloid and Interface Science</i> , 2020, 564, 245-253.	5.0	15
2059	Formic acid decomposition-inhibited intermetallic Pd <sub>3</sub> Sn <sub>2</sub> nanonetworks for efficient formic acid electrooxidation. <i>Journal of Power Sources</i> , 2020, 450, 227615.	4.0	29
2060	Molten-Salt Synthesis of Pt <sub>3</sub> Co Binary Alloy Nanoplates as Excellent and Durable Electrocatalysts toward Oxygen Electroreduction. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 986-993.	3.2	20
2061	Origin of High Activity and Durability of Twisty Nanowire Alloy Catalysts under Oxygen Reduction and Fuel Cell Operating Conditions. <i>Journal of the American Chemical Society</i> , 2020, 142, 1287-1299.	6.6	102
2062	M-porphyrin (M = Mn, Co) carbon materials as oxygen reduction catalysts from density functional studies. <i>Molecular Physics</i> , 2020, 118, e1687949.	0.8	4
2063	Disclosing Pt-Bimetallic Alloy Nanoparticle Surface Lattice Distortion with Electrochemical Probes. <i>ACS Energy Letters</i> , 2020, 5, 162-169.	8.8	35
2064	Ru@Pt/C core-shell catalyst for SO <sub>2</sub> electrocatalytic oxidation in electrochemical Bunsen reaction. <i>Electrochimica Acta</i> , 2020, 331, 135315.	2.6	10
2065	Antiperovskite Intermetallic Nanoparticles for Enhanced Oxygen Reduction. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 1871-1877.	7.2	31
2066	Inactive step-edge Pt atoms boost oxygen reduction reaction by activating adsorbed hydrogen atoms. <i>Applied Surface Science</i> , 2020, 504, 144434.	3.1	6
2067	Graphdiyne for crucial gas involved catalytic reactions in energy conversion applications. <i>Energy and Environmental Science</i> , 2020, 13, 1326-1346.	15.6	115
2068	A layer-by-layer strategy for the scalable preparation of uniform interfacial electrocatalysts with high structural tunability: a case study of a CoNP/N,P-graphene catalyst complex. <i>Nanoscale</i> , 2020, 12, 145-154.	2.8	1
2069	Hollow PtCu octahedral nanoalloys: Efficient bifunctional electrocatalysts towards oxygen reduction reaction and methanol oxidation reaction by regulating near-surface composition. <i>Journal of Colloid and Interface Science</i> , 2020, 562, 244-251.	5.0	49
2070	<i>Ab Initio</i> Insights into the Formation Mechanisms of 55-Atom Pt-Based Core-Shell Nanoalloys. <i>Journal of Physical Chemistry C</i> , 2020, 124, 1158-1164.	1.5	22
2071	A New One-Pot Sequential Reduction-Deposition Method for the synthesis of Silica-supported NiPt and CuPt Bimetallic Catalysts. <i>Applied Catalysis A: General</i> , 2020, 591, 117371.	2.2	14
2072	Facet-controlled Pt-Ir nanocrystals with substantially enhanced activity and durability towards oxygen reduction. <i>Materials Today</i> , 2020, 35, 69-77.	8.3	45



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2074	Visualization Analysis of Pt and Co Species in Degraded Pt <sub>3</sub> Co/C Electrocatalyst Layers of a Polymer Electrolyte Fuel Cell Using a Same-View Nano-XAFS/STEM-EDS Combination Technique. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 2299-2312.	4.0	8
2075	Applications of cathodic Co <sub>100</sub> -XNi <sub>x</sub> (x = 0, 30, 70, and 100) electrocatalysts chemically coated with Pt for PEM fuel cells. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 13726-13737.	3.8	6
2076	Mn-Doped RuO <sub>2</sub> Nanocrystals as Highly Active Electrocatalysts for Enhanced Oxygen Evolution in Acidic Media. <i>ACS Catalysis</i> , 2020, 10, 1152-1160.	5.5	302
2077	Toward Promising Cathode Catalysts for Nonlithium Metal–Oxygen Batteries. <i>Advanced Energy Materials</i> , 2020, 10, 1901997.	10.2	102
2078	Fishbone-like platinum-nickel nanowires as an efficient electrocatalyst for methanol oxidation. <i>Nano Research</i> , 2020, 13, 67-71.	5.8	17
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