Sang Hoon Joo

List of Publications by Year
in descending order

181 papers	24,690 citations	10979 71 h-index	6831 155 g-index
187 all docs	187 docs citations	187 times ranked	22394 citing authors

#	Article	IF	Citations
1	Ordered nanoporous arrays of carbon supporting high dispersions of platinum nanoparticles. Nature, 2001, 412, 169-172.	13.7	2,439
2	Synthesis of New, Nanoporous Carbon with Hexagonally Ordered Mesostructure. Journal of the American Chemical Society, 2000, 122, 10712-10713.	6.6	2,331
3	Synthesis of Highly Ordered Carbon Molecular Sieves via Template-Mediated Structural Transformation. Journal of Physical Chemistry B, 1999, 103, 7743-7746.	1.2	2,322
4	Ordered Mesoporous Carbons. Advanced Materials, 2001, 13, 677-681.	11.1	1,454
5	Thermally stable Pt/mesoporous silica coreâ€"shell nanocatalysts for high-temperature reactions. Nature Materials, 2009, 8, 126-131.	13.3	1,372
6	A General Approach to Preferential Formation of Active Feâ€"N_{<i>x</i>} Sites in Feâ€"N/C Electrocatalysts for Efficient Oxygen Reduction Reaction. Journal of the American Chemical Society, 2016, 138, 15046-15056.	6.6	663
7	MXene: an emerging two-dimensional material for future energy conversion and storage applications. Journal of Materials Chemistry A, 2017, 5, 24564-24579.	5.2	450
8	Size Effect of Ruthenium Nanoparticles in Catalytic Carbon Monoxide Oxidation. Nano Letters, 2010, 10, 2709-2713.	4.5	379
9	Intrinsic Relationship between Enhanced Oxygen Reduction Reaction Activity and Nanoscale Work Function of Doped Carbons. Journal of the American Chemical Society, 2014, 136, 8875-8878.	6.6	360
10	Synthesis of Mesoporous Silicas of Controlled Pore Wall Thickness and Their Replication to Ordered Nanoporous Carbons with Various Pore Diameters. Journal of the American Chemical Society, 2002, 124, 1156-1157.	6.6	349
11	Structural Study of Mesoporous MCM-48 and Carbon Networks Synthesized in the Spaces of MCM-48 by Electron Crystallography. Journal of Physical Chemistry B, 2002, 106, 1256-1266.	1.2	342
12	Characterization of Ordered Mesoporous Carbons Synthesized Using MCM-48 Silicas as Templates. Journal of Physical Chemistry B, 2000, 104, 7960-7968.	1.2	333
13	Synthesis and characterization of mesoporous carbon for fuel cell applications. Journal of Materials Chemistry, 2007, 17, 3078.	6.7	333
14	Ordered mesoporous porphyrinic carbons with very high electrocatalytic activity for the oxygen reduction reaction. Scientific Reports, 2013, 3, 2715.	1.6	282
15	Ordered mesoporous Co3O4 spinels as stable, bifunctional, noble metal-free oxygen electrocatalysts. Journal of Materials Chemistry A, 2013, 1, 9992.	5.2	275
16	Active Edgeâ€Siteâ€Rich Carbon Nanocatalysts with Enhanced Electron Transfer for Efficient Electrochemical Hydrogen Peroxide Production. Angewandte Chemie - International Edition, 2019, 58, 1100-1105.	7.2	244
17	Nanoporous Metal Oxides with Tunable and Nanocrystalline Frameworks via Conversion of Metalâ€"Organic Frameworks. Journal of the American Chemical Society, 2013, 135, 8940-8946.	6.6	243
18	Iridium-Based Multimetallic Nanoframe@Nanoframe Structure: An Efficient and Robust Electrocatalyst toward Oxygen Evolution Reaction. ACS Nano, 2017, 11, 5500-5509.	7.3	243

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19	Energetically Favored Formation of MCM-48 from Cationicâˆ’Neutral Surfactant Mixtures. Journal of Physical Chemistry B, 1999, 103, 7435-7440.	1.2	227
20	Hollow nanoparticles as emerging electrocatalysts for renewable energy conversion reactions. Chemical Society Reviews, 2018, 47, 8173-8202.	18.7	222
21	Evidence for General Nature of Pore Interconnectivity in 2-Dimensional Hexagonal Mesoporous Silicas Prepared Using Block Copolymer Templates. Journal of Physical Chemistry B, 2002, 106, 4640-4646.	1.2	208
22	Monolayer-Precision Synthesis of Molybdenum Sulfide Nanoparticles and Their Nanoscale Size Effects in the Hydrogen Evolution Reaction. ACS Nano, 2015, 9, 3728-3739.	7.3	201
23	Ordered mesoporous carbons (OMC) as supports of electrocatalysts for direct methanol fuel cells (DMFC): Effect of carbon precursors of OMC on DMFC performances. Electrochimica Acta, 2006, 52, 1618-1626.	2.6	198
24	Direct Observation of 3D Mesoporous Structure by Scanning Electron Microscopy (SEM): SBA-15 Silica and CMK-5 Carbon. Angewandte Chemie - International Edition, 2003, 42, 2182-2185.	7.2	196
25	Oxygen-deficient triple perovskites as highly active and durable bifunctional electrocatalysts for oxygen electrode reactions. Science Advances, 2018, 4, eaap9360.	4.7	195
26	Cobalt Assisted Synthesis of IrCu Hollow Octahedral Nanocages as Highly Active Electrocatalysts toward Oxygen Evolution Reaction. Advanced Functional Materials, 2017, 27, 1604688.	7.8	186
27	Characterization of Regular and Plugged SBA-15 Silicas by Using Adsorption and Inverse Carbon Replication and Explanation of the Plug Formation Mechanism. Journal of Physical Chemistry B, 2003, 107, 2205-2213.	1.2	184
28	Intrinsic Relation between Catalytic Activity of CO Oxidation on Ru Nanoparticles and Ru Oxides Uncovered with Ambient Pressure XPS. Nano Letters, 2012, 12, 5761-5768.	4.5	182
29	Skeletal Octahedral Nanoframe with Cartesian Coordinates <i>via</i> Geometrically Precise Nanoscale Phase Segregation in a Pt@Ni Coreâ€“Shell Nanocrystal. ACS Nano, 2015, 9, 2856-2867.	7.3	176
30	Carbon Nanotubes/Heteroatomâ€Doped Carbon Coreâ€“Sheath Nanostructures as Highly Active, Metalâ€Free Oxygen Reduction Electrocatalysts for Alkaline Fuel Cells. Angewandte Chemie - International Edition, 2014, 53, 4102-4106.	7.2	168
31	Synthesis of ordered mesoporous carbon molecular sieves CMK-1. Microporous and Mesoporous Materials, 2001, 44-45, 153-158.	2.2	164
32	Vertexâ€Reinforced PtCuCo Ternary Nanoframes as Efficient and Stable Electrocatalysts for the Oxygen Reduction Reaction and the Methanol Oxidation Reaction. Advanced Functional Materials, 2018, 28, 1706440.	7.8	161
33	Atomically dispersed Ptâ€“N4 sites as efficient and selective electrocatalysts for the chlorine evolution reaction. Nature Communications, 2020, 11, 412.	5.8	154
34	Roles of Feâˆ’N_{<i>x</i>} and Feâˆ’Fe₃C@C Species in Feâˆ’N/C Electrocatalysts for Oxygen Reduction Reaction. ACS Applied Materials & Interfaces, 2017, 9, 9567-9575.	4.0	151
35	The structure of MCM-48 determined by electron crystallography. Journal of Electron Microscopy, 1999, 48, 795-798.	0.9	144
36	Ordered Mesoporous Carbon Nitrides with Graphitic Frameworks as Metal-Free, Highly Durable, Methanol-Tolerant Oxygen Reduction Catalysts in an Acidic Medium. Langmuir, 2012, 28, 991-996.	1.6	138

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37	Catalytic pyrolysis of biomass components over mesoporous catalysts using Py-GC/MS. Catalysis Today, 2013, 204, 170-178.	2.2	137
38	An ice-templated, pH-tunable self-assembly route to hierarchically porous graphene nanoscroll networks. Nanoscale, 2014, 6, 9734-9741.	2.8	136
39	Noncovalent Polymerâ€Gatekeeper in Mesoporous Silica Nanoparticles as a Targeted Drug Delivery Platform. Advanced Functional Materials, 2015, 25, 957-965.	7.8	130
40	Colloidal inverse bicontinuous cubic membranes of block copolymers with tunable surface functional groups. Nature Chemistry, 2014, 6, 534-541.	6.6	129
41	Rational design of Ptâ€“Niâ€“Co ternary alloy nanoframe crystals as highly efficient catalysts toward the alkaline hydrogen evolution reaction. Nanoscale, 2016, 8, 16379-16386.	2.8	128
42	Characterization of MCM-48 Silicas with Tailored Pore Sizes Synthesized via a Highly Efficient Procedure. Chemistry of Materials, 2000, 12, 1414-1421.	3.2	125
43	Size-Dependent Activity Trends Combined with in Situ X-ray Absorption Spectroscopy Reveal Insights into Cobalt Oxide/Carbon Nanotube-Catalyzed Bifunctional Oxygen Electrocatalysis. ACS Catalysis, 2016, 6, 4347-4355.	5.5	125
44	Preparation of high loading Pt nanoparticles on ordered mesoporous carbon with a controlled Pt size and its effects on oxygen reduction and methanol oxidation reactions. Electrochimica Acta, 2009, 54, 5746-5753.	2.6	123
45	Nanocrevasse-Rich Carbon Fibers for Stable Lithium and Sodium Metal Anodes. Nano Letters, 2019, 19, 1504-1511.	4.5	123
46	Heterogeneous Coâ€“N/C Electrocatalysts with Controlled Cobalt Site Densities for the Hydrogen Evolution Reaction: Structureâ€“Activity Correlations and Kinetic Insights. ACS Catalysis, 2019, 9, 83-97.	5.5	122
47	Graphitic Nanoshell/Mesoporous Carbon Nanohybrids as Highly Efficient and Stable Bifunctional Oxygen Electrocatalysts for Rechargeable Aqueous Naâ€“Air Batteries. Advanced Energy Materials, 2016, 6, 1501794.	10.2	120
48	Facet-controlled hollow Rh₂S₃ hexagonal nanoprisms as highly active and structurally robust catalysts toward hydrogen evolution reaction. Energy and Environmental Science, 2016, 9, 850-856.	15.6	118
49	A General Strategy to Atomically Dispersed Precious Metal Catalysts for Unravelling Their Catalytic Trends for Oxygen Reduction Reaction. ACS Nano, 2020, 14, 1990-2001.	7.3	116
50	Highly interconnected ordered mesoporous carbonâ€“carbon nanotube nanocomposites: Pt-free, highly efficient, and durable counter electrodes for dye-sensitized solar cells. Chemical Communications, 2012, 48, 8057.	2.2	115
51	Effect of surface oxygen functionalization of carbon support on the activity and durability of Pt/C catalysts for the oxygen reduction reaction. Carbon, 2016, 101, 449-457.	5.4	115
52	Intermetallic PtCu Nanoframes as Efficient Oxygen Reduction Electrocatalysts. Nano Letters, 2020, 20, 7413-7421.	4.5	109
53	Designing highly active nanoporous carbon H2O2 production electrocatalysts through active site identification. CheM, 2021, 7, 3114-3130.	5.8	109
54	Spectroscopic Study of the Thermal Degradation of PVP-Capped Rh and Pt Nanoparticles in H₂ and O₂ Environments. Journal of Physical Chemistry C, 2010, 114, 1117-1126.	1.5	105

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55	Promoting Oxygen Reduction Reaction Activity of Feâ€“N/C Electrocatalysts by Silica-Coating-Mediated Synthesis for Anion-Exchange Membrane Fuel Cells. Chemistry of Materials, 2018, 30, 6684-6701.	3.2	105
56	Ordered mesoporous carbons with controlled particle sizes as catalyst supports for direct methanol fuel cell cathodes. Carbon, 2008, 46, 2034-2045.	5.4	100
57	Shape effects of nickel phosphide nanocrystals on hydrogen evolution reaction. CrystEngComm, 2016, 18, 6083-6089.	1.3	96
58	Activity Origin and Multifunctionality of Pt-Based Intermetallic Nanostructures for Efficient Electrocatalysis. ACS Catalysis, 2019, 9, 11242-11254.	5.5	96
59	Lanthanide metal-assisted synthesis of rhombic dodecahedral MNi (M = Ir and Pt) nanoframes toward efficient oxygen evolution catalysis. Nano Energy, 2017, 42, 17-25.	8.2	94
60	A transformative route to nanoporous manganese oxides of controlled oxidation states with identical textural properties. Journal of Materials Chemistry A, 2014, 2, 10435-10443.	5.2	93
61	Coordination Chemistry of [Co(acac)₂] with Nâ€Doped Graphene: Implications for Oxygen Reduction Reaction Reactivity of Organometallic Coâ€O₄â€N Species. Angewandte Chemie - International Edition, 2015, 54, 12622-12626.	7.2	93
62	Ordered Mesoporous Metastable Î±â€MoC_{1âˆ’}<i>_x</i> with Enhanced Water Dissociation Capability for Boosting Alkaline Hydrogen Evolution Activity. Advanced Functional Materials, 2019, 29, 1901217.	7.8	92
63	Cactusâ€Like Hollow Cu_{2â€}<i>_x</i>S@Ru Nanoplates as Excellent and Robust Electrocatalysts for the Alkaline Hydrogen Evolution Reaction. Small, 2017, 13, 1700052.	5.2	86
64	Rational Synthesis Pathway for Ordered Mesoporous Carbon with Controllable 30â€•to 100â€Angstrom Pores. Advanced Materials, 2008, 20, 757-762.	11.1	84
65	Thermal Transformation of Molecular Ni²⁺â€“N₄ Sites for Enhanced CO₂ Electroreduction Activity. ACS Catalysis, 2020, 10, 10920-10931.	5.5	81
66	Selective electrocatalysis imparted by metalâ€“insulator transition for durability enhancement of automotive fuel cells. Nature Catalysis, 2020, 3, 639-648.	16.1	79
67	Colloidally Synthesized Monodisperse Rh Nanoparticles Supported on SBA-15 for Size- and Pretreatment-Dependent Studies of CO Oxidation. Journal of Physical Chemistry C, 2009, 113, 8616-8623.	1.5	76
68	Ultrastable Pt nanoparticles supported on sulfur-containing ordered mesoporous carbon via strong metal-support interaction. Journal of Materials Chemistry, 2009, 19, 5934.	6.7	76
69	Topotactic Transformations in an Icosahedral Nanocrystal to Form Efficient Waterâ€Splitting Catalysts. Advanced Materials, 2019, 31, e1805546.	11.1	76
70	Detailed structure of the hexagonally packed mesostructured carbon material CMK-3. Carbon, 2002, 40, 2477-2481.	5.4	75
71	Self-Supported Mesostructured Pt-Based Bimetallic Nanospheres Containing an Intermetallic Phase as Ultrastable Oxygen Reduction Electrocatalysts. Small, 2016, 12, 5347-5353.	5.2	72
72	Functionalized carbon nanotube-poly(arylene sulfone) composite membranes for direct methanol fuel cells with enhanced performance. Journal of Power Sources, 2008, 180, 63-70.	4.0	69

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73	Unassisted solar lignin valorisation using a compartmented photo-electro-biochemical cell. Nature Communications, 2019, 10, 5123.	5.8	67
74	Surface Selective Polymerization of Polypyrrole on Ordered Mesoporous Carbon:Â Enhancing Interfacial Conductivity for Direct Methanol Fuel Cell Application. Macromolecules, 2006, 39, 3275-3282.	2.2	64
75	Electrical Conductivity Gradient Based on Heterofibrous Scaffolds for Stable Lithiumâ€Metal Batteries. Advanced Functional Materials, 2020, 30, 1908868.	7.8	64
76	Recent advances in nanostructured intermetallic electrocatalysts for renewable energy conversion reactions. Journal of Materials Chemistry A, 2020, 8, 8195-8217.	5.2	64
77	MOF-Derived Cu@Cu2O Nanocatalyst for Oxygen Reduction Reaction and Cycloaddition Reaction. Nanomaterials, 2018, 8, 138.	1.9	62
78	Nanostructured carbon materials synthesized from mesoporous silica crystals by replication. Studies in Surface Science and Catalysis, 2004, 148, 241-260.	1.5	61
79	Ordered mesoporous carbonâ€"carbon nanotube nanocomposites as highly conductive and durable cathode catalyst supports for polymer electrolyte fuel cells. Journal of Materials Chemistry A, 2013, 1, 1270-1283.	5.2	58
80	An IrRu alloy nanocactus on Cu_{2â^'x}S@IrS_y as a highly efficient bifunctional electrocatalyst toward overall water splitting in acidic electrolytes. Journal of Materials Chemistry A, 2018, 6, 16130-16138.	5.2	58
81	Direct propylene epoxidation with oxygen using a photo-electro-heterogeneous catalytic system. Nature Catalysis, 2022, 5, 37-44.	16.1	58
82	Mesoporous monoliths of inverse bicontinuous cubic phases of block copolymer bilayers. Nature Communications, 2015, 6, 6392.	5.8	57
83	Ordered Mesoporous Carbon Supported Colloidal Pd Nanoparticle Based Model Catalysts for Suzuki Coupling Reactions: Impact of Organic Capping Agents. ChemCatChem, 2012, 4, 1587-1594.	1.8	56
84	Noncovalent Surface Locking of Mesoporous Silica Nanoparticles for Exceptionally High Hydrophobic Drug Loading and Enhanced Colloidal Stability. Biomacromolecules, 2015, 16, 2701-2714.	2.6	55
85	Enhancing Activity and Stability of Cobalt Oxide Electrocatalysts for the Oxygen Evolution Reaction via Transition Metal Doping. Journal of the Electrochemical Society, 2016, 163, F3020-F3028.	1.3	55
86	Molecularly dispersed nickel-containing species on the carbon nitride network as electrocatalysts for the oxygen evolution reaction. Carbon, 2017, 124, 180-187.	5.4	55
87	AAâ€²-Stacked Trilayer Hexagonal Boron Nitride Membrane for Proton Exchange Membrane Fuel Cells. ACS Nano, 2018, 12, 10764-10771.	7.3	55
88	Ultrasensitive detection of hydrogen peroxide and dopamine using copolymer-grafted metal-organic framework based electrochemical sensor. Analytica Chimica Acta, 2020, 1118, 26-35.	2.6	55
89	Size effect of RhPt bimetallic nanoparticles in catalytic activity of CO oxidation: Role of surface segregation. Catalysis Today, 2012, 181, 133-137.	2.2	54
90	Nanodendrites of platinum-group metals for electrocatalytic applications. Nano Research, 2018, 11, 6111-6140.	5.8	54

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91	Synthesis of compositionally tunable, hollow mixed metal sulphide Co_xNi_yS_z octahedral nanocages and their composition-dependent electrocatalytic activities for oxygen evolution reaction. Nanoscale, 2017, 9, 15397-15406.	2.8	52
92	Impact of a conductive oxide core in tungsten sulfide-based nanostructures on the hydrogen evolution reaction. Chemical Communications, 2015, 51, 8334-8337.	2.2	50
93	Ni@Ru and NiCo@Ru Coreâ€"Shell Hexagonal Nanosandwiches with a Compositionally Tunable Core and a Regioselectively Grown Shell. Small, 2018, 14, 1702353.	5.2	50
94	Recent advances in unveiling active sites in molybdenum sulfide-based electrocatalysts for the hydrogen evolution reaction. Nano Convergence, 2017, 4, 19.	6.3	49
95	Simple coordination complex-derived three-dimensional mesoporous graphene as an efficient bifunctional oxygen electrocatalyst. Chemical Communications, 2015, 51, 6773-6776.	2.2	48
96	Green synthesis of the reduced graphene oxideâ€"CuI quasi-shellâ€"core nanocomposite: A highly efficient and stable solar-light-induced catalyst for organic dye degradation in water. Applied Surface Science, 2015, 358, 159-167.	3.1	48
97	Effects of ionomer content on Pt catalyst/ordered mesoporous carbon support in polymer electrolyte membrane fuel cells. Journal of Power Sources, 2013, 222, 477-482.	4.0	47
98	Pore structure and graphitic surface nature of ordered mesoporous carbons probed by low-pressure nitrogen adsorption. Microporous and Mesoporous Materials, 2003, 60, 139-149.	2.2	45
99	Exfoliated Sulfonated Poly(arylene ether sulfone)â€"Clay Nanocomposites. Advanced Materials, 2008, 20, 2341-2344.	11.1	45
100	Carbon-supported ultra-high loading Pt nanoparticle catalyst by controlled overgrowth of Pt: Improvement of Pt utilization leads to enhanced direct methanol fuel cell performance. International Journal of Hydrogen Energy, 2012, 37, 6880-6885.	3.8	45
101	Catalytic conversion of Laminaria japonica over microporous zeolites. Energy, 2014, 66, 2-6.	4.5	45
102	Recent advances in non-precious group metal-based catalysts for water electrolysis and beyond. Journal of Materials Chemistry A, 2021, 10, 50-88.	5.2	44
103	Heteroatom-doped carbon-based oxygen reduction electrocatalysts with tailored four-electron and two-electron selectivity. Chemical Communications, 2021, 57, 7350-7361.	2.2	43
104	Single-Atom Catalysts: A Perspective toward Application in Electrochemical Energy Conversion. Jacs Au, 2021, 1, 1086-1100.	3.6	43
105	Production of novel FeOOH/reduced graphene oxide hybrids and their performance as oxygen reduction reaction catalysts. Carbon, 2014, 80, 127-134.	5.4	42
106	Direct conversion of coordination compounds into Ni₂P nanoparticles entrapped in 3D mesoporous graphene for an efficient hydrogen evolution reaction. Materials Chemistry Frontiers, 2017, 1, 973-978.	3.2	41
107	Ordered Mesoporous Carbons with Graphitic Tubular Frameworks by Dual Templating for Efficient Electrocatalysis and Energy Storage. Angewandte Chemie - International Edition, 2021, 60, 1441-1449.	7.2	40
108	General Efficacy of Atomically Dispersed Pt Catalysts for the Chlorine Evolution Reaction: Potential-Dependent Switching of the Kinetics and Mechanism. ACS Catalysis, 2021, 11, 12232-12246.	5.5	40

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109	Enhancement of electrochemical stability and catalytic activity of Pt nanoparticles via strong metal-support interaction with sulfur-containing ordered mesoporous carbon. Catalysis Today, 2011, 164, 186-189.	2.2	39
110	Electrocatalyst design for promoting two-electron oxygen reduction reaction: Isolation of active site atoms. Current Opinion in Electrochemistry, 2020, 21, 109-116.	2.5	39
111	Trend of catalytic activity of CO oxidation on Rh and Ru nanoparticles: Role of surface oxide. Catalysis Today, 2012, 185, 131-137.	2.2	38
112	Impact of framework structure of ordered mesoporous carbons on the performance of supported Pt catalysts for oxygen reduction reaction. Carbon, 2014, 72, 354-364.	5.4	37
113	Monomeric MoS₄^{2â€“}-Derived Polymeric Chains with Active Molecular Units for Efficient Hydrogen Evolution Reaction. ACS Catalysis, 2020, 10, 652-662.	5.5	37
114	Highly Crystalline Pd₁₃Cu₃S₇ Nanoplates Prepared via Partial Cation Exchange of Cu_{1.81}S Templates as an Efficient Electrocatalyst for the Hydrogen Evolution Reaction. Chemistry of Materials, 2018, 30, 6884-6892.	3.2	36
115	Cathode catalyst layer using supported Pt catalyst on ordered mesoporous carbon for direct methanol fuel cell. Journal of Power Sources, 2008, 180, 724-732.	4.0	35
116	Synthesis of Ordered Mesoporous Phenanthrenequinone-Carbon via Ï€-Ï€ Interaction-Dependent Vapor Pressure for Rechargeable Batteries. Scientific Reports, 2014, 4, 7404.	1.6	35
117	Three-dimensional pillared metallomacrocycleâ€“graphene frameworks with tunable micro- and mesoporosity. Journal of Materials Chemistry A, 2013, 1, 8432.	5.2	32
118	Preferential horizontal growth of tungsten sulfide on carbon and insight into active sulfur sites for the hydrogen evolution reaction. Nanoscale, 2018, 10, 3838-3848.	2.8	31
119	Immobilizing single atom catalytic sites onto highly reduced carbon hosts: Feâ€“N₄/CNT as a durable oxygen reduction catalyst for Naâ€“air batteries. Journal of Materials Chemistry A, 2020, 8, 18891-18902.	5.2	31
120	Highly dispersed Pd catalysts supported on various carbons for furfural hydrogenation. Catalysis Today, 2020, 350, 71-79.	2.2	30
121	Hierarchically porous adamantane-shaped carbon nanoframes. Journal of Materials Chemistry A, 2018, 6, 18906-18911.	5.2	29
122	Dual catalytic functions of biomimetic, atomically dispersed iron-nitrogen doped carbon catalysts for efficient enzymatic biofuel cells. Chemical Engineering Journal, 2020, 381, 122679.	6.6	29
123	Morphology controlled synthesis of 2-D Niâ€“Ni3S2 and Ni3S2 nanostructures on Ni foam towards oxygen evolution reaction. Nano Convergence, 2017, 4, .	6.3	28
124	A facet-controlled Rh₃Pb₂S₂ nanocage as an efficient and robust electrocatalyst toward the hydrogen evolution reaction. Nanoscale, 2018, 10, 9845-9850.	2.8	28
125	Strategies for Enhancing the Electrocatalytic Activity of Mâ€“N/C Catalysts for the Oxygen Reduction Reaction. Topics in Catalysis, 2018, 61, 1077-1100.	1.3	27
126	Reversible Ligand Exchange in Atomically Dispersed Catalysts for Modulating the Activity and Selectivity of the Oxygen Reduction Reaction. Angewandte Chemie - International Edition, 2021, 60, 20528-20534.	7.2	27

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127	Metastable Phase-Controlled Synthesis of Mesoporous Molybdenum Carbides for Efficient Alkaline Hydrogen Evolution. ACS Catalysis, 2022, 12, 7415-7426.	5.5	27
128	Impact of Textural Properties of Mesoporous Porphyrinic Carbon Electrocatalysts on Oxygen Reduction Reaction Activity. ChemElectroChem, 2018, 5, 1928-1936.	1.7	25
129	Heteroatom-doped nanomaterials/coreâ€“shell nanostructure based electrocatalysts for the oxygen reduction reaction. Journal of Materials Chemistry A, 2022, 10, 987-1021.	5.2	24
130	Ultrathin titania coating for high-temperature stable SiO2/Pt nanocatalysts. Chemical Communications, 2011, 47, 8412.	2.2	23
131	Synthesis of boron and nitrogen co-doped graphene nano-platelets using a two-step solution process and catalytic properties for oxygen reduction reaction. Solid State Sciences, 2014, 33, 1-5.	1.5	23
132	Ternary dendritic nanowires as highly active and stable multifunctional electrocatalysts. Nanoscale, 2016, 8, 15167-15172.	2.8	23
133	Membraneless enzymatic biofuel cells using iron and cobalt co-doped ordered mesoporous porphyrinic carbon based catalyst. Applied Surface Science, 2020, 511, 145449.	3.1	23
134	Unveiling the Cationic Promotion Effect of H₂O₂ Electrosynthesis Activity of O-Doped Carbons. ACS Applied Materials & Interfaces, 2021, 13, 59904-59914.	4.0	23
135	Electrocatalytic performances of heteroatom-containing functionalities in N-doped reduced graphene oxides. Journal of Industrial and Engineering Chemistry, 2016, 42, 149-156.	2.9	22
136	Structure-dependent catalytic properties of mesoporous cobalt oxides in furfural hydrogenation. Applied Catalysis A: General, 2019, 583, 117125.	2.2	22
137	Active Edgeâ€Siteâ€Rich Carbon Nanocatalysts with Enhanced Electron Transfer for Efficient Electrochemical Hydrogen Peroxide Production. Angewandte Chemie, 2019, 131, 1112-1117.	1.6	22
138	Recent Progress in the Identification of Active Sites in Pyrolyzed Feâˆ'N/C Catalysts and Insights into Their Role in Oxygen Reduction Reaction. Journal of Electrochemical Science and Technology, 2017, 8, 169-182.	0.9	22
139	In situ- generated metal oxide catalyst during CO oxidation reaction transformed from redox-active metal-organic framework-supported palladium nanoparticles. Nanoscale Research Letters, 2012, 7, 461.	3.1	21
140	Nature of Rh Oxide on Rh Nanoparticles and Its Effect on the Catalytic Activity of CO Oxidation. Catalysis Letters, 2013, 143, 1153-1161.	1.4	20
141	Ordered mesoporous copper oxide nanostructures as highly active and stable catalysts for aqueous click reactions. Catalysis Communications, 2016, 81, 24-28.	1.6	20
142	High-performance Fe 5 C 2 @CMK-3 nanocatalyst for selective and high-yield production of gasoline-range hydrocarbons. Journal of Catalysis, 2017, 349, 66-74.	3.1	20
143	A magnetic boost. Nature Energy, 2018, 3, 451-452.	19.8	20
144	Metal carbides as alternative electrocatalysts for energy conversion reactions. Journal of Catalysis, 2021, 404, 911-924.	3.1	20

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145	Study of electro-chemical properties of metalâ€“oxide interfaces using a newly constructed ambient pressure X-ray photoelectron spectroscopy endstation. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 645, 260-265.	0.7	19
146	Structural Evolution of Chemically-Driven RuO2 Nanowires and 3-Dimensional Design for Photo-Catalytic Applications. Scientific Reports, 2015, 5, 11933.	1.6	19
147	Synthesis of bare Pt₃Ni nanorods from PtNi@Ni coreâ€“shell nanorods by acid etching: one-step surfactant removal and phase conversion for optimal electrochemical performance toward oxygen reduction reaction. CrystEngComm, 2016, 18, 6002-6007.	1.3	19
148	Enhancement of oxygen reduction reaction activities by Pt nanoclusters decorated on ordered mesoporous porphyrinic carbons. Journal of Materials Chemistry A, 2016, 4, 5869-5876.	5.2	17
149	<scp>Ptâ€based</scp> Intermetallic Nanocatalysts for Promoting the Oxygen Reduction Reaction. Bulletin of the Korean Chemical Society, 2021, 42, 724-736.	1.0	17
150	Nanoscale electrocatalyst design for alkaline hydrogen evolution reaction through activity descriptor identification. Materials Chemistry Frontiers, 2021, 5, 4042-4058.	3.2	17
151	X-ray diffraction analysis of mesostructured materials by continuous density function technique. Studies in Surface Science and Catalysis, 2003, 146, 299-302.	1.5	16
152	Ultrafast production of ordered mesoporous carbons via microwave irradiation. Carbon, 2007, 45, 2851-2854.	5.4	16
153	Asymmetric polystyrene-polylactide bottlebrush random copolymers: Synthesis, self-assembly and nanoporous structures. Polymer, 2019, 175, 49-56.	1.8	12
154	Circumventing the OCl versus OOH scaling relation in the chlorine evolution reaction: Beyond dimensionally stable anodes. Current Opinion in Electrochemistry, 2022, 34, 100979.	2.5	12
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