Hector D Abruna

List of Publications by Year
in descending order

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355	37,096	2963	3638
papers	citations	93 h-index	180 g-index

359	359	359	33364
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	High-rate electrochemical energy storage through Li+ intercalation pseudocapacitance. Nature Materials, 2013, 12, 518-522.	13.3	4,021
2	Coulomb blockade and the Kondo effect in single-atom transistors. Nature, 2002, 417, 722-725.	13.7	1,902
3	Structurally ordered intermetallic platinumâ€“cobalt coreâ€“shell nanoparticles with enhanced activity and stability as oxygen reduction electrocatalysts. Nature Materials, 2013, 12, 81-87.	13.3	1,768
4	Î²-Ketoenamine-Linked Covalent Organic Frameworks Capable of Pseudocapacitive Energy Storage. Journal of the American Chemical Society, 2013, 135, 16821-16824.	6.6	949
5	Underpotential Deposition at Single Crystal Surfaces of Au, Pt, Ag and Other Materials. Chemical Reviews, 2001, 101, 1897-1930.	23.0	825
6	Yolkâ€“Shell Structure of Polyaniline-Coated Sulfur for Lithiumâ€“Sulfur Batteries. Journal of the American Chemical Society, 2013, 135, 16736-16743.	6.6	734
7	Electron Injection from Colloidal PbS Quantum Dots into Titanium Dioxide Nanoparticles. ACS Nano, 2008, 2, 2206-2212.	7.3	551
8	Effects of Liquid Electrolytes on the Chargeâ€“Discharge Performance of Rechargeable Lithium/Sulfur Batteries: Electrochemical and in-Situ X-ray Absorption Spectroscopic Studies. Journal of Physical Chemistry C, 2011, 115, 25132-25137.	1.5	515
9	Electrocatalytic Activity of Ordered Intermetallic Phases for Fuel Cell Applications. Journal of the American Chemical Society, 2004, 126, 4043-4049.	6.6	485
10	Tunable High Performance Cross-Linked Alkaline Anion Exchange Membranes for Fuel Cell Applications. Journal of the American Chemical Society, 2010, 132, 3400-3404.	6.6	440
11	Activating Pd by Morphology Tailoring for Oxygen Reduction. Journal of the American Chemical Society, 2009, 131, 602-608.	6.6	437
12	Phosphonium-Functionalized Polyethylene: A New Class of Base-Stable Alkaline Anion Exchange Membranes. Journal of the American Chemical Society, 2012, 134, 18161-18164.	6.6	425
13	PbSe Nanocrystal Excitonic Solar Cells. Nano Letters, 2009, 9, 3749-3755.	4.5	360
14	Superior Charge Storage and Power Density of a Conducting Polymer-Modified Covalent Organic Framework. ACS Central Science, 2016, 2, 667-673.	5.3	349
15	Electroluminescent devices from ionic transition metal complexes. Journal of Materials Chemistry, 2007, 17, 2976-2988.	6.7	338
16	Lithiumâ€“Sulfur Battery Cathode Enabled by Lithiumâ€“Nitrile Interaction. Journal of the American Chemical Society, 2013, 135, 763-767.	6.6	329
17	Solid-state electroluminescent devices based on transition metal complexes. Chemical Communications, 2003, , 2392-2399.	2.2	324
18	Rapid and Efficient Redox Processes within 2D Covalent Organic Framework Thin Films. ACS Nano, 2015, 9, 3178-3183.	7.3	318

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19	Pt-Decorated PdCo@Pd/C Coreâ^'Shell Nanoparticles with Enhanced Stability and Electrocatalytic Activity for the Oxygen Reduction Reaction. Journal of the American Chemical Society, 2010, 132, 17664-17666.	6.6	300
20	Coordination chemistry in two dimensions: chemically modified electrodes. Coordination Chemistry Reviews, 1988, 86, 135-189.	9.5	297
21	Tuning Oxygen Reduction Reaction Activity via Controllable Dealloying: A Model Study of Ordered Cu₃Pt/C Intermetallic Nanocatalysts. Nano Letters, 2012, 12, 5230-5238.	4.5	291
22	Direct measurement of the electric-field distribution in a light-emitting electrochemical cell. Nature Materials, 2007, 6, 894-899.	13.3	275
23	Template-Free Synthesis of Hollow-Structured Co₃O₄ Nanoparticles as High-Performance Anodes for Lithium-Ion Batteries. ACS Nano, 2015, 9, 1775-1781.	7.3	275
24	Tailoring Pore Size of Nitrogenâ€Đoped Hollow Carbon Nanospheres for Confining Sulfur in Lithiumâ€"Sulfur Batteries. Advanced Energy Materials, 2015, 5, 1401752.	10.2	273
25	Micromethod for the Investigation of the Interactions between DNA and Redox-Active Molecules. Analytical Chemistry, 1998, 70, 3162-3169.	3.2	263
26	Phenazine-Based Covalent Organic Framework Cathode Materials with High Energy and Power Densities. Journal of the American Chemical Society, 2020, 142, 16-20.	6.6	256
27	Understanding Conversion-Type Electrodes for Lithium Rechargeable Batteries. Accounts of Chemical Research, 2018, 51, 273-281.	7.6	249
28	Electrochemistry of Individual Monolayer Graphene Sheets. ACS Nano, 2011, 5, 2264-2270.	7.3	243
29	Nanoscale Imaging of Lithium Ion Distribution During In Situ Operation of Battery Electrode and Electrolyte. Nano Letters, 2014, 14, 1453-1459.	4.5	238
30	Electrochemical determination of activation energies for methanol oxidation on polycrystalline platinum in acidic and alkaline electrolytes. Physical Chemistry Chemical Physics, 2007, 9, 49-77.	1.3	226
31	A Ring-Opening Metathesis Polymerization Route to Alkaline Anion Exchange Membranes: Development of Hydroxide-Conducting Thin Films from an Ammonium-Functionalized Monomer. Journal of the American Chemical Society, 2009, 131, 12888-12889.	6.6	220
32	Pt Skin on AuCu Intermetallic Substrate: A Strategy to Maximize Pt Utilization for Fuel Cells. Journal of the American Chemical Society, 2014, 136, 9643-9649.	6.6	220
33	Synergistic Mn-Co catalyst outperforms Pt on high-rate oxygen reduction for alkaline polymer electrolyte fuel cells. Nature Communications, 2019, 10, 1506.	5.8	212
34	Mechanism of Gold-Assisted Exfoliation of Centimeter-Sized Transition-Metal Dichalcogenide Monolayers. ACS Nano, 2018, 12, 10463-10472.	7.3	203
35	Redox-Active Ferrocenyl Dendrimers:â€‰ Thermodynamics and Kinetics of Adsorption, In-Situ Electrochemical Quartz Crystal Microbalance Study of the Redox Process and Tapping Mode AFM Imaging. Journal of the American Chemical Society, 1997, 119, 10763-10773.	6.6	201
36	Electrocatalysis in Alkaline Media and Alkaline Membrane-Based Energy Technologies. Chemical Reviews, 2022, 122, 6117-6321.	23.0	195

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37	Electroanalysis with chemically modified electrodes. Analytical Chemistry, 1985, 57, 142-149.	3.2	194
38	Spectral, electrochemical and electrocatalytic properties of 1,10-phenanthroline-5,6-dione complexes of transition metals. Inorganic Chemistry, 1985, 24, 4263-4267.	1.9	192
39	Batteries and electrochemical capacitors. Physics Today, 2008, 61, 43-47.	0.3	187
40	4-Vinyl-, 6-vinyl-, and 4'-vinyl-2,2':6',2"-terpyridinyl ligands: their synthesis and the electrochemistry of their transition-metal coordination complexes. Journal of the American Chemical Society, 1987, 109, 3961-3967.	6.6	185
41	Electroluminescence in Ruthenium(II) Complexes. Journal of the American Chemical Society, 2002, 124, 13624-13628.	6.6	181
42	Amylopectin Wrapped Graphene Oxide/Sulfur for Improved Cyclability of Lithiumâ€“Sulfur Battery. ACS Nano, 2013, 7, 8801-8808.	7.3	181
43	Effects of Dendrimer Generation on Site Isolation of Core Moieties:Â Electrochemical and Fluorescence Quenching Studies with Metalloporphyrin Core Dendrimers. Chemistry of Materials, 1998, 10, 30-38.	3.2	180
44	Zeptomole Voltammetric Detection and Electron-Transfer Rate Measurements Using Platinum Electrodes of Nanometer Dimensions. Analytical Chemistry, 2003, 75, 3962-3971.	3.2	178
45	Metalâ€“Organic-Framework-Derived Coâ€“Fe Bimetallic Oxygen Reduction Electrocatalysts for Alkaline Fuel Cells. Journal of the American Chemical Society, 2019, 141, 10744-10750.	6.6	176
46	Electrocatalytic Oxidation of Formic Acid at an Ordered Intermetallic PtBi Surface. ChemPhysChem, 2003, 4, 193-199.	1.0	174
47	Synthesis, Characterization, and Electrocatalytic Activity of PtBi and PtPb Nanoparticles Prepared by Borohydride Reduction in Methanol. Chemistry of Materials, 2006, 18, 3365-3372.	3.2	174
48	Pt-Rich_{core}/Sn-Rich_{subsurface}/Pt_{skin} Nanocubes As Highly Active and Stable Electrocatalysts for the Ethanol Oxidation Reaction. Journal of the American Chemical Society, 2018, 140, 3791-3797.	6.6	166
49	Fabrication and preliminary testing of a planar membraneless microchannel fuel cell. Journal of Power Sources, 2005, 139, 96-105.	4.0	164
50	Facile Synthesis of Carbon-Supported Pdâ€“Co Coreâ€“Shell Nanoparticles as Oxygen Reduction Electrocatalysts and Their Enhanced Activity and Stability with Monolayer Pt Decoration. Chemistry of Materials, 2012, 24, 2274-2281.	3.2	163
51	Three-Dimensional Tracking and Visualization of Hundreds of Ptâ^'Co Fuel Cell Nanocatalysts During Electrochemical Aging. Nano Letters, 2012, 12, 4417-4423.	4.5	162
52	Electrocatalytic Performance of Fuel Oxidation by Pt₃Ti Nanoparticles. Journal of the American Chemical Society, 2008, 130, 5452-5458.	6.6	157
53	Cobalt-Based Nitride-Core Oxide-Shell Oxygen Reduction Electrocatalysts. Journal of the American Chemical Society, 2019, 141, 19241-19245.	6.6	154
54	Water Oxidation Catalysis by Co(II) Impurities in Co(III)₄O₄ Cubanes. Journal of the American Chemical Society, 2014, 136, 17681-17688.	6.6	152

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55	Near-IR Electrochromism in Electropolymerized Films of a Biscyclometalated Ruthenium Complex Bridged by 1,2,4,5-Tetra(2-pyridyl)benzene. Journal of the American Chemical Society, 2011, 133, 20720-20723.	6.6	151
56	Multivalent Binding Motifs for the Noncovalent Functionalization of Graphene. Journal of the American Chemical Society, 2011, 133, 17614-17617.	6.6	149
57	Fe/N/C Nanotubes with Atomic Fe Sites: A Highly Active Cathode Catalyst for Alkaline Polymer Electrolyte Fuel Cells. ACS Catalysis, 2017, 7, 6485-6492.	5.5	141
58	In Situ Electron Energy-Loss Spectroscopy in Liquids. Microscopy and Microanalysis, 2013, 19, 1027-1035.	0.2	140
59	In situ synthesis of lithium sulfideâ€“carbon composites as cathode materials for rechargeable lithium batteries. Journal of Materials Chemistry A, 2013, 1, 1433-1440.	5.2	138
60	Synthesis and Characterization of Redox-Active Metal Complexes Sequentially Self-Assembled onto Gold Electrodes via a New Thiolâ^Terpyridine Ligand. Langmuir, 1996, 12, 4455-4462.	1.6	136
61	Metal ion-induced self-assembly of functionalized 2,6-oligopyridines. 2. Copper-containing double-stranded helicates derived from functionalized quaterpyridine and quinquepyridine: redox state-induced transformations and electron communication in mixed-valence systems. Inorganic Chemistry, 1993, 32, 4422-4435.	1.9	134
62	Rotating Disk Electrode (RDE) Investigation of BH₄^{â^'} and BH₃OH^{â^'} Electro-oxidation at Pt and Au: Implications for BH₄^{â^'} Fuel Cells. Journal of Physical Chemistry C, 2009, 113, 19700-19712.	1.5	134
63	A Dual Electrolyte H2/O2 Planar Membraneless Microchannel Fuel Cell System with Open Circuit Potentials in Excess of 1.4 V. Langmuir, 2005, 21, 3544-3550.	1.6	133
64	Electrogenerated Chemiluminescence from PbS Quantum Dots. Nano Letters, 2009, 9, 789-793.	4.5	131
65	Morphology and Activity Tuning of Cu₃Pt/C Ordered Intermetallic Nanoparticles by Selective Electrochemical Dealloying. Nano Letters, 2015, 15, 1343-1348.	4.5	131
66	High-Loading Intermetallic Pt₃Co/C Coreâ€“Shell Nanoparticles as Enhanced Activity Electrocatalysts toward the Oxygen Reduction Reaction (ORR). Chemistry of Materials, 2018, 30, 1532-1539.	3.2	131
67	Operando Methods in Electrocatalysis. ACS Catalysis, 2021, 11, 1136-1178.	5.5	131
68	Monomeric and oligomeric complexes of ruthenium and osmium with tetra-2-pyridyl-1,4-pyrazine (TPPZ). Inorganic Chemistry, 1993, 32, 194-203.	1.9	130
69	Highly Stable and CO-Tolerant Pt/Ti_{0.7}W_{0.3}O₂ Electrocatalyst for Proton-Exchange Membrane Fuel Cells. Journal of the American Chemical Society, 2010, 132, 10218-10220.	6.6	129
70	Precise Adjustment of Nanometric-Scale Diffusion Layers within a Redox Dendrimer Molecule by Ultrafast Cyclic Voltammetry: An Electrochemical Nanometric Microtome. Chemistry - A European Journal, 2001, 7, 2206-2226.	1.7	127
71	Solvent Processable Tetraalkylammonium-Functionalized Polyethylene for Use as an Alkaline Anion Exchange Membrane. Macromolecules, 2010, 43, 7147-7150.	2.2	127
72	Electrocatalysis of CO2 reduction at surface modified metallic and semiconducting electrodes. Journal of Electroanalytical Chemistry and Interfacial Electrochemistry, 1986, 209, 101-107.	0.3	122

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73	One-Pot Synthesis of Platinum-Based Nanoparticles Incorporated into Mesoporous Niobium Oxideâ˜Carbon Composites for Fuel Cell Electrodes. Journal of the American Chemical Society, 2009, 131, 9389-9395.	6.6	122
74	Mechanistic insights into operational lithiumâ€“sulfur batteries by in situ X-ray diffraction and absorption spectroscopy. RSC Advances, 2014, 4, 18347.	1.7	122
75	In Situ X-ray Absorption Spectroscopy of a Synergistic Coâ€“Mn Oxide Catalyst for the Oxygen Reduction Reaction. Journal of the American Chemical Society, 2019, 141, 1463-1466.	6.6	121
76	Electron Transfer through Molecules and Assemblies at Electrode Surfaces. Chemical Reviews, 2008, 108, 2721-2736.	23.0	118
77	In operando X-ray studies of the conversion reaction in Mn₃O₄lithium battery anodes. Journal of Materials Chemistry A, 2013, 1, 2094-2103.	5.2	118
78	IrPdRu/C as H₂ Oxidation Catalysts for Alkaline Fuel Cells. Journal of the American Chemical Society, 2017, 139, 6807-6810.	6.6	117
79	Pt-Decorated Composition-Tunable Pdâ€“Fe@Pd/C Coreâ€“Shell Nanoparticles with Enhanced Electrocatalytic Activity toward the Oxygen Reduction Reaction. Journal of the American Chemical Society, 2018, 140, 7248-7255.	6.6	116
80	Reactivity of Monolayer Chemical Vapor Deposited Graphene Imperfections Studied Using Scanning Electrochemical Microscopy. ACS Nano, 2012, 6, 3070-3079.	7.3	115
81	Intermetallic PtPb Nanoparticles Prepared by Sodium Naphthalide Reduction of Metal-Organic Precursors:â€‰ Electrocatalytic Oxidation of Formic Acid. Chemistry of Materials, 2006, 18, 5591-5596.	3.2	111
82	Synthesis, Characterization, and Electrocatalytic Activity of PtBi Nanoparticles Prepared by the Polyol Process. Chemistry of Materials, 2005, 17, 5871-5876.	3.2	109
83	Kinetics of Interfacial Electron Transfer at Single-Layer Graphene Electrodes in Aqueous and Nonaqueous Solutions. Langmuir, 2013, 29, 1683-1694.	1.6	106
84	CO₂ and O₂ Evolution at High Voltage Cathode Materials of Li-Ion Batteries: A Differential Electrochemical Mass Spectrometry Study. Analytical Chemistry, 2014, 86, 6197-6201.	3.2	105
85	Identification of a Quenching Species in Ruthenium Tris-Bipyridine Electroluminescent Devices. Journal of the American Chemical Society, 2006, 128, 7761-7764.	6.6	104
86	Tunnelling spectra of individual magnetic endofullerene molecules. Nature Materials, 2008, 7, 884-889.	13.3	102
87	Multifunctional Electrocatalysts: Ruâ€“M (M = Co, Ni, Fe) for Alkaline Fuel Cells and Electrolyzers. ACS Catalysis, 2020, 10, 4608-4616.	5.5	102
88	Key Parameters Governing the Energy Density of Rechargeable Li/S Batteries. Journal of Physical Chemistry Letters, 2014, 5, 882-885.	2.1	101
89	Electrogenerated chemiluminescence. 40. A chemiluminescent polymer based on the tris(4-vinyl-4'-methyl-2,2'-bipyridyl)ruthenium(II) system. Journal of the American Chemical Society, 1982, 104, 2641-2642.	6.6	99
90	Electrochemical and mechanistic studies of Re(CO)3(dmbpy)Cl] and their relation to the catalytic reduction of CO2. Journal of Electroanalytical Chemistry and Interfacial Electrochemistry, 1986, 201, 347-358.	0.3	98

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91	Metal ion-induced self-assembly of functionalized 2,6-oligopyridines. 3. Metal-metal interaction and redox state-induced transformations in double-stranded helicates derived from functionalized quinquepyridine and sexipyridine. Inorganic Chemistry, 1993, 32, 4436-4449.	1.9	98
92	Revealing the atomic ordering of binary intermetallics using in situ heating techniques at multilength scales. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 1974-1983.	3.3	98
93	Direct visualization of sulfur cathodes: new insights into Liâ€“S batteries via operando X-ray based methods. Energy and Environmental Science, 2018, 11, 202-210.	15.6	96
94	Copper-Induced Formation of Structurally Ordered Ptâ€“Feâ€“Cu Ternary Intermetallic Electrocatalysts with Tunable Phase Structure and Improved Stability. Chemistry of Materials, 2018, 30, 5987-5995.	3.2	96
95	Regulating Key Variables and Visualizing Lithium Dendrite Growth: An Operando X-ray Study. Journal of the American Chemical Society, 2019, 141, 8441-8449.	6.6	96
96	Single-Molecule Conductance of Pyridine-Terminated Dithienylethene Switch Molecules. ACS Nano, 2011, 5, 5115-5123.	7.3	95
97	Metal ion-induced self-assembly of functionalized 2,6-oligopyridines. 4. Metal-metal interaction in double-stranded, dicuprous helicates derived from terpyridine derivatives. Inorganic Chemistry, 1993, 32, 4450-4456.	1.9	94
98	Enantiomerically Pure Chiral Coordination Polymers:Â Synthesis, Spectroscopy, and Electrochemistry in Solution and on Surfaces. Journal of the American Chemical Society, 2001, 123, 10265-10271.	6.6	94
99	Nonprecious transition metal nitrides as efficient oxygen reduction electrocatalysts for alkaline fuel cells. Science Advances, 2022, 8, eabj1584.	4.7	94
100	Addition of a Phosphorescent Dopant in Electroluminescent Devices from Ionic Transition Metal Complexes. Chemistry of Materials, 2005, 17, 6114-6116.	3.2	93
101	A rechargeable Naâ€“CO₂/O₂battery enabled by stable nanoparticle hybrid electrolytes. Journal of Materials Chemistry A, 2014, 2, 17723-17729.	5.2	92
102	Interface-Enhanced Catalytic Selectivity on the C₂ Products of CO₂ Electroreduction. ACS Catalysis, 2021, 11, 2473-2482.	5.5	92
103	Synthesis of Intermetallic PtZn Nanoparticles by Reaction of Pt Nanoparticles with Zn Vapor and Their Application as Fuel Cell Catalysts. Chemistry of Materials, 2009, 21, 2661-2667.	3.2	91
104	Theoretical Studies of Carbonyl-Based Organic Molecules for Energy Storage Applications: The Heteroatom and Substituent Effect. Journal of Physical Chemistry C, 2014, 118, 6046-6051.	1.5	91
105	Synthesis, Characterization, Electrochemistry, and EQCM Studies of Polyamidoamine Dendrimers Surface-Functionalized with Polypyridyl Metal Complexes. Langmuir, 1999, 15, 872-884.	1.6	90
106	A Strategy for Increasing the Efficiency of the Oxygen Reduction Reaction in Mn-Doped Cobalt Ferrites. Journal of the American Chemical Society, 2019, 141, 4412-4421.	6.6	90
107	Semiconductor electrodes. 40. Photoassisted hydrogen evolution at poly(benzyl viologen)-coated p-type silicon electrodes. Journal of the American Chemical Society, 1981, 103, 6898-6901.	6.6	88
108	Construction of submicrometer voltammetric electrodes. Analytical Chemistry, 1990, 62, 782-784.	3.2	87

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109	Ultrafast Voltammetry of Adsorbed Redox Active Dendrimers with Nanometric Resolution: An Electrochemical Microtome. ChemPhysChem, 2001, 2, 130-134.	1.0	87
110	Enhancement of the Oxygen Reduction Reaction Activity of Pt by Tuning Its d-Band Center via Transition Metal Oxide Support Interactions. ACS Catalysis, 2021, 11, 9317-9332.	5.5	87
111	Synthesis, Characterization, and Electrocatalytic Activity of PtPb Nanoparticles Prepared by Two Synthetic Approaches. Langmuir, 2006, 22, 10465-10471.	1.6	86
112	Cationâ€Đependent Stabilization of Electrogenerated Naphthalene Diimide Dianions in Porous Polymer Thin Films and Their Application to Electrical Energy Storage. Angewandte Chemie - International Edition, 2015, 54, 13225-13229.	7.2	86
113	Identical Location Transmission Electron Microscopy Imaging of Site-Selective Pt Nanocatalysts: Electrochemical Activation and Surface Disordering. Journal of the American Chemical Society, 2015, 137, 14992-14998.	6.6	85
114	Golden Palladium Zinc Ordered Intermetallics as Oxygen Reduction Electrocatalysts. ACS Nano, 2019, 13, 5968-5974.	7.3	83
115	Synergistic Bimetallic Metallic Organic Framework-Derived Ptâ€“Co Oxygen Reduction Electrocatalysts. ACS Nano, 2020, 14, 13069-13080.	7.3	82
116	Observation of Electroluminescence and Photovoltaic Response in Ionic Junctions. Science, 2006, 313, 1416-1419.	6.0	81
117	Sulfur encapsulation by MOF-derived CoS₂ embedded in carbon hosts for high-performance Liâ€“S batteries. Journal of Materials Chemistry A, 2019, 7, 21128-21139.	5.2	79
118	Iron(II) and Copper(I) Coordination Polymers:â€‰ Electrochromic Materials with and without Chiroptical Properties. Inorganic Chemistry, 2003, 42, 4389-4393.	1.9	77
119	Ruthenium Molecular Wires with Conjugated Bridging Ligands:Â Onset of Band Formation in Linear Inorganic Conjugated Oligomers. Journal of the American Chemical Society, 2006, 128, 1513-1522.	6.6	77
120	High-Loading Composition-Tolerant Coâ€“Mn Spinel Oxides with Performance beyond 1 W/cm² in Alkaline Polymer Electrolyte Fuel Cells. ACS Energy Letters, 2019, 4, 1251-1257.	8.8	77
121	Strain and Charge Doping Fingerprints of the Strong Interaction between Monolayer MoS₂ and Gold. Journal of Physical Chemistry Letters, 2020, 11, 6112-6118.	2.1	77
122	Mechanistic Studies of Formate Oxidation on Platinum in Alkaline Medium. Journal of Physical Chemistry C, 2012, 116, 5810-5820.	1.5	76
123	Li-Carboxylate Anode Structure-Property Relationships from Molecular Modeling. Chemistry of Materials, 2013, 25, 132-141.	3.2	75
124	Tailoring the Antipoisoning Performance of Pd for Formic Acid Electrooxidation via an Ordered PdBi Intermetallic. ACS Catalysis, 2020, 10, 9977-9985.	5.5	75
125	Dinuclear Transition-Metal Terpyridine Complexes with a Dithienylcyclo- pentene Bridge Directed toward Molecular Electronic Applications. Inorganic Chemistry, 2007, 46, 10470-10472.	1.9	74
126	Enhancing the Electrocatalytic Activity of Pd/M (M = Ni, Mn) Nanoparticles for the Oxygen Reduction Reaction in Alkaline Media through Electrochemical Dealloying. ACS Catalysis, 2020, 10, 5891-5898.	5.5	74

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127	Systematic Optimization of Battery Materials: Key Parameter Optimization for the Scalable Synthesis of Uniform, High-Energy, and High Stability LiNi_{0.6}Mn_{0.2}Co_{0.2}O₂ Cathode Material for Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2017, 9, 35811-35819.	4.0	73
128	Direct Observation of Electrocatalytic Synergy. Journal of the American Chemical Society, 2007, 129, 11033-11035.	6.6	72
129	Coalescence in the Thermal Annealing of Nanoparticles: An in Situ STEM Study of the Growth Mechanisms of Ordered Ptâ€“Fe Nanoparticles in a KCl Matrix. Chemistry of Materials, 2013, 25, 1436-1442.	3.2	72
130	Membraneless, Room-Temperature, Direct Borohydride/Cerium Fuel Cell with Power Density of Over 0.25 W/cm². Journal of the American Chemical Society, 2012, 134, 6076-6079.	6.6	71
131	Increasing the Gravimetric Energy Density of Organic Based Secondary Battery Cathodes Using Small Radius Cations (Li⁺ and Mg²⁺). Journal of the American Chemical Society, 2013, 135, 14532-14535.	6.6	67
132	Spontaneous incorporation of gold in palladium-based ternary nanoparticles makes durable electrocatalysts for oxygen reduction reaction. Nature Communications, 2016, 7, 11941.	5.8	67
133	Oxidation of the ligand in nitro complexes of ruthenium(III). Inorganic Chemistry, 1980, 19, 1896-1903.	1.9	65
134	Semiconductor Electrodes: XLI . Improvement of Performance of Electrodes by Electrochemical Polymerization of oâ€Phenylenediamine at Surface Imperfections. Journal of the Electrochemical Society, 1982, 129, 265-271.	1.3	65
135	Structural Effects on the Oxidation of HCOOH by Bismuth-Modified Pt(111) Electrodes with (100) Monatomic Steps. Langmuir, 1999, 15, 7325-7332.	1.6	65
136	Infiltrating sulfur in hierarchical architecture MWCNT@meso C coreâ€“shell nanocomposites for lithiumâ€“sulfur batteries. Physical Chemistry Chemical Physics, 2013, 15, 9051.	1.3	65
137	Enhanced ORR Kinetics on Au-Doped Ptâ€“Cu Porous Films in Alkaline Media. ACS Catalysis, 2020, 10, 9967-9976.	5.5	65
138	Cobalt-electrocatalytic HAT for functionalization of unsaturated Câ€“C bonds. Nature, 2022, 605, 687-695.	13.7	65
139	Ordered Arrays Generated via Metal-Initiated Self-Assembly of Terpyridine Containing Dendrimers and Bridging Ligands. Langmuir, 1999, 15, 7351-7354.	1.6	64
140	Interactions of Benzyl Viologen with Surface-Bound Single- and Double-Stranded DNA. Analytical Chemistry, 2000, 72, 4700-4706.	3.2	64
141	Electrocatalytic mechanism and kinetics of SOMs oxidation on ordered PtPb and PtBi intermetallic compounds: DEMS and FTIRS study. Physical Chemistry Chemical Physics, 2008, 10, 3739.	1.3	64
142	Structure of the Photo-catalytically Active Surface of SrTiO₃. Journal of the American Chemical Society, 2016, 138, 7816-7819.	6.6	64
143	Tungsten based electrocatalyst for fuel cell applications. Electrochemistry Communications, 2007, 9, 2128-2132.	2.3	63
144	Phenothiazine-Based Polymer Cathode Materials with Ultrahigh Power Densities for Lithium Ion Batteries. ACS Applied Energy Materials, 2018, 1, 3560-3564.	2.5	63

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145	Combinatorial Studies of Palladium-Based Oxygen Reduction Electrocatalysts for Alkaline Fuel Cells. Journal of the American Chemical Society, 2020, 142, 3980-3988.	6.6	63
146	Electrochemical Hydrogen Evolution at Ordered Mo₇Ni₇. ACS Catalysis, 2017, 7, 3375-3383.	5.5	62
147	Adsorption Dynamics of Electroactive Self-Assembling Molecules. Langmuir, 1994, 10, 1971-1979.	1.6	61
148	Di-, tri-, and tetrametallic double-stranded helical complexes derived from alkylthio-substituted septipyridines: synthesis, structure, and redox properties. Inorganic Chemistry, 1993, 32, 5477-5484.	1.9	60
149	High-Performance Ga₂O₃ Anode for Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2018, 10, 5519-5526.	4.0	60
150	Octahedral spinel electrocatalysts for alkaline fuel cells. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 24425-24432.	3.3	60
151	Adsorption of CO on PtBi2 and PtBi surfaces. Surface Science, 2005, 574, 1-16.	0.8	59
152	High throughput screening of electrocatalysts for fuel cell applications. Review of Scientific Instruments, 2006, 77, 054104.	0.6	59
153	Tailored redox functionality of small organics for pseudocapacitive electrodes. Energy and Environmental Science, 2012, 5, 7176.	15.6	58
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