Hector D Abruna

List of Publications by Year
in descending order

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355 papers	37,096 citations	3449 93 h-index	4217 180 g-index
359 all docs	359 docs citations	359 times ranked	38459 citing authors

#	Article	IF	Citations
1	New insights into methanol and formic acid electro-oxidation on Pt: Simultaneous DEMS and ATR-SEIRAS study under well-defined flow conditions and simulations of CO spectra. Journal of Chemical Physics, 2022, 156, 034703.	1.2	6
2	Nonprecious transition metal nitrides as efficient oxygen reduction electrocatalysts for alkaline fuel cells. Science Advances, 2022, 8, eabj1584.	4.7	94
3	Electrocatalysis in Alkaline Media and Alkaline Membrane-Based Energy Technologies. Chemical Reviews, 2022, 122, 6117-6321.	23.0	195
4	Competitive nucleation and growth behavior in Liâ€“Se batteries. Energy and Environmental Science, 2022, 15, 1493-1502.	15.6	16
5	Visualization of Sodium Metal Anodes via Operando X-Ray and Optical Microscopy: Controlling the Morphological Evolution of Sodium Metal Plating. ACS Applied Materials & Interfaces, 2022, 14, 10438-10446.	4.0	20
6	A completely precious metalâ€“free alkaline fuel cell with enhanced performance using a carbon-coated nickel anode. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2119883119.	3.3	54
7	Metal Monolayers on Command: Underpotential Deposition at Nanocrystal Surfaces: A Quantitative Operando Electrochemical Transmission Electron Microscopy Study. ACS Energy Letters, 2022, 7, 1292-1297.	8.8	7
8	Oxidative Stability Matters: A Case Study of Palladium Hydride Nanosheets for Alkaline Fuel Cells. Journal of the American Chemical Society, 2022, 144, 8106-8114.	6.6	27
9	Cobalt-electrocatalytic HAT for functionalization of unsaturated Câ€“C bonds. Nature, 2022, 605, 687-695.	13.7	65
10	Ex Situ and In Situ Analyses of the Mechanism of Electrocatalytic Hydrogen Peroxide Production by Co_xZn_{1â€“x}O (0 < x < 0.018) Materials in Alkaline Media. ACS Applied Energy Materials, 2022, 5, 6597-6605.	2.5	2
11	Surface Roughness-Independent Homogeneous Lithium Plating in Synergetic Conditioned Electrolyte. ACS Energy Letters, 2022, 7, 2219-2227.	8.8	8
12	Investigation of ion-electrode interactions of linear polyimides and alkali metal ions for next generation alternative-ion batteries. Chemical Science, 2022, 13, 9191-9201.	3.7	11
13	Rate and Mechanism of Electrochemical Formation of Surface-Bound Hydrogen on Pt(111) Single Crystals. Journal of Physical Chemistry Letters, 2022, 13, 6383-6390.	2.1	3
14	Lithiumâ€“sulfur redox: challenges and opportunities. Current Opinion in Electrochemistry, 2021, 25, 100652.	2.5	14
15	Operando Methods in Electrocatalysis. ACS Catalysis, 2021, 11, 1136-1178.	5.5	131
16	Performance optimization and fast rate capabilities of novel polymer cathode materials through balanced electronic and ionic transport. Journal of Materials Chemistry A, 2021, 9, 5657-5663.	5.2	19
17	Organic electrode materials for fast-rate, high-power battery applications. Materials Reports Energy, 2021, 1, 100008.	1.7	43
18	Anion Exchange and Water Dynamics in a Phosphonium-Based Alkaline Anion Exchange Membrane Material for Fuel Cells: An Electrochemical Quartz Crystal Microbalance Study. ACS Applied Materials & Interfaces, 2021, 13, 10979-10986.	4.0	5

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19	Interface-Enhanced Catalytic Selectivity on the C₂ Products of CO₂ Electroreduction. ACS Catalysis, 2021, 11, 2473-2482.	5.5	92
20	Designing Synergistic Electrocatalysts for H₂ Oxidation and Evolution Reactions in Alkaline Media. Journal of Physical Chemistry C, 2021, 125, 7188-7203.	1.5	9
21	Methanol Oxidation at Platinum in Alkaline Media: A Study of the Effects of Hydroxide Concentration and of Mass Transport. ChemPhysChem, 2021, 22, 1397-1406.	1.0	12
22	Epitaxial Thin-Film Spinel Oxides as Oxygen Reduction Electrocatalysts in Alkaline Media. Chemistry of Materials, 2021, 33, 4006-4013.	3.2	9
23	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
24	A channel flow cell with double disk electrodes for oxygen electroreduction study at elevated temperatures and pressures: Theory. Journal of Electroanalytical Chemistry, 2021, 896, 115251.	1.9	1
25	Understanding the Impacts of Li Stripping Overpotentials at the Counter Electrode by Three-Electrode Coin Cell Measurements. Analytical Chemistry, 2021, 93, 15459-15467.	3.2	15
26	Ni-rich LiNi0.88Mn0.06Co0.06O2 cathode interwoven by carbon fiber with improved rate capability and stability. Journal of Power Sources, 2020, 447, 227344.	4.0	24
27	Methanol Oxidation Using Ternary Ordered Intermetallic Electrocatalysts: A DEMS Study. ACS Catalysis, 2020, 10, 770-776.	5.5	45
28	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
29	Electron Tunneling through Boron Nitride Confirms Marcusâ€“Hush Theory Predictions for Ultramicroelectrodes. ACS Nano, 2020, 14, 993-1002.	7.3	16
30	Regulating lithium nucleation and growth by zinc modified current collectors. Nano Research, 2020, 13, 45-51.	5.8	19
31	The Intricate Love Affairs between MoS₂ and Metallic Substrates. Advanced Materials Interfaces, 2020, 7, 2001324.	1.9	15
32	Enhanced ORR Kinetics on Au-Doped Ptâ€“Cu Porous Films in Alkaline Media. ACS Catalysis, 2020, 10, 9967-9976.	5.5	65
33	Tailoring the Antipoisoning Performance of Pd for Formic Acid Electrooxidation via an Ordered PdBi Intermetallic. ACS Catalysis, 2020, 10, 9977-9985.	5.5	75
34	Activityâ€“Stability Relationship in Au@Pt Nanoparticles for Electrocatalysis. ACS Energy Letters, 2020, 5, 2827-2834.	8.8	49
35	Synergistic Bimetallic Metallic Organic Framework-Derived Ptâ€“Co Oxygen Reduction Electrocatalysts. ACS Nano, 2020, 14, 13069-13080.	7.3	82
36	Electrochemical Screening of Metallic Oxygen Reduction Reaction Catalyst Thin Films Using Getter Cosputtering. ACS Combinatorial Science, 2020, 22, 339-347.	3.8	1

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37	Multifunctional Electrocatalysts: Ruâ€“M (M = Co, Ni, Fe) for Alkaline Fuel Cells and Electrolyzers. ACS Catalysis, 2020, 10, 4608-4616.	5.5	102
38	An Innovative Lithium Ion Battery System Based on a Cu₂S Anode Material. ACS Applied Materials & Interfaces, 2020, 12, 17396-17405.	4.0	24
39	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
40	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
41	Crossâ€linking Effects on Performance Metrics of Phenazineâ€Based Polymer Cathodes. ChemSusChem, 2020, 13, 2428-2435.	3.6	41
42	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
43	Single-phase Ru1âˆ'âˆ'Mn Co O2 nanoparticles as highly effective oxygen reduction electrocatalysts in alkaline media with enhanced stability and fuel-tolerance. Applied Catalysis B: Environmental, 2020, 277, 119149.	10.8	13
44	Quantifying the Atomic Ordering of Binary Intermetallic Nanocatalysts Using In Situ Heating STEM and XRD. Microscopy and Microanalysis, 2019, 25, 1488-1489.	0.2	1
45	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
46	Uniform lithium deposition on N-doped carbon-coated current collectors. Chemical Communications, 2019, 55, 10124-10127.	2.2	24
47	Ultrahigh Rate Performance of a Robust Lithium Nickel Manganese Cobalt Oxide Cathode with Preferentially Orientated Li-Diffusing Channels. ACS Applied Materials & Interfaces, 2019, 11, 41178-41187.	4.0	20
48	Atomicâ€Scale Visualization of Electrochemical Lithiation Processes in Monolayer MoS₂ by Cryogenic Electron Microscopy. Advanced Energy Materials, 2019, 9, 1902773.	10.2	33
49	Rock-Salt-Type MnCo₂O₃/C as Efficient Oxygen Reduction Electrocatalysts for Alkaline Fuel Cells. Chemistry of Materials, 2019, 31, 9331-9337.	3.2	15
50	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
51	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
52	Elucidation of the electrochemical behavior of phenothiazine-based polyaromatic amines. Tetrahedron, 2019, 75, 4244-4249.	1.0	7
53	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
54	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

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55	Rh and Rh Alloy Nanoparticles as Highly Active H₂ Oxidation Catalysts for Alkaline Fuel Cells. ACS Catalysis, 2019, 9, 5057-5062.	5.5	45
56	Golden Palladium Zinc Ordered Intermetallics as Oxygen Reduction Electrocatalysts. ACS Nano, 2019, 13, 5968-5974.	7.3	83
57	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
58	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
59	Cobalt-Based Nitride-Core Oxide-Shell Oxygen Reduction Electrocatalysts. Journal of the American Chemical Society, 2019, 141, 19241-19245.	6.6	154
60	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
61	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
62	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
63	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
64	Understanding Conversion-Type Electrodes for Lithium Rechargeable Batteries. Accounts of Chemical Research, 2018, 51, 273-281.	7.6	249
65	High-Performance Ga₂O₃ Anode for Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2018, 10, 5519-5526.	4.0	60
66	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
67	Mechanism of Gold-Assisted Exfoliation of Centimeter-Sized Transition-Metal Dichalcogenide Monolayers. ACS Nano, 2018, 12, 10463-10472.	7.3	203
68	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
69	SnS/C nanocomposites for high-performance sodium ion battery anodes. RSC Advances, 2018, 8, 23847-23853.	1.7	28
70	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
71	Phenothiazine-Based Polymer Cathode Materials with Ultrahigh Power Densities for Lithium Ion Batteries. ACS Applied Energy Materials, 2018, 1, 3560-3564.	2.5	63
72	Relaxation of asymmetric crystallographic tilt: In situ x-ray diffraction studies of epitaxial electrodeposition of bismuth on GaAs (110). Journal of Applied Physics, 2018, 124, .	1.1	3

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73	Dynamic Hosts for High-Performance Liâ€“S Batteries Studied by Cryogenic Transmission Electron Microscopy and in Situ X-ray Diffraction. ACS Energy Letters, 2018, 3, 1325-1330.	8.8	47
74	The effect of alloying of transition metals (MÂ= Fe, Co, Ni) with palladium catalysts on the electrocatalytic activity for the oxygen reduction reaction in alkaline media. Electrochimica Acta, 2018, 283, 1045-1052.	2.6	30
75	Porous Fe₃O₄Nanospheres as Effective Sulfur Hosts for Li-S Batteries. Journal of the Electrochemical Society, 2018, 165, A1656-A1661.	1.3	23
76	Solar energy conversion, storage, and release using an integrated solar-driven redox flow battery. Journal of Materials Chemistry A, 2017, 5, 5362-5372.	5.2	52
77	Electrochemical Hydrogen Evolution at Ordered Mo₇Ni₇. ACS Catalysis, 2017, 7, 3375-3383.	5.5	62
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	Synthesis and electrochemical characterization of TixTayAlzN1-Î´Oî³ for fuel cell catalyst supports. Journal of Solid State Chemistry, 2017, 246, 293-301.	1.4	1
80	Rediscovering Cr2O72â€“, an Oxidant with Unrivaled Power and Energy Density, for Affordable, Next-Generation Energy Storage and Conversion. ACS Energy Letters, 2017, 2, 1439-1443.	8.8	3
81	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
82	Hybrid Organic Electrodes: The Rational Design and Synthesis of High-Energy Redox-Active Pendant Functionalized Polypyrroles for Electrochemical Energy Storage. Journal of the Electrochemical Society, 2017, 164, A1946-A1951.	1.3	6
83	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
84	Rapid hydrothermal synthesis of Li3VO4 with different favored facets. Journal of Solid State Electrochemistry, 2017, 21, 2547-2553.	1.2	8
85	Rotating Disk Electrode Voltammetry of Thin Films of Novel Oxide Materials. Journal of the Electrochemical Society, 2017, 164, H1154-H1160.	1.3	10
86	In Situ TEM for Electrochemical Energy Storage and Conversion Systems. Microscopy and Microanalysis, 2016, 22, 1326-1327.	0.2	0
87	Hydroxyl Radical Generation and DNA Nuclease Activity: A Mechanistic Study Based on a Surfaceâ€Immobilized Copper Thioether Clipâ€Phen Derivative. Chemistry - A European Journal, 2016, 22, 10081-10089.	1.7	23
88	In Situ Electrochemical Cell TEM for Battery and Fuel Cell Systems. Microscopy and Microanalysis, 2016, 22, 752-753.	0.2	0
89	Nanomaterial datasets to advance tomography in scanning transmission electron microscopy. Scientific Data, 2016, 3, 160041.	2.4	42
90	Superior Charge Storage and Power Density of a Conducting Polymer-Modified Covalent Organic Framework. ACS Central Science, 2016, 2, 667-673.	5.3	349

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91	Spontaneous incorporation of gold in palladium-based ternary nanoparticles makes durable electrocatalysts for oxygen reduction reaction. Nature Communications, 2016, 7, 11941.	5.8	67
92	The Sodiumâ€“Oxygen/Carbon Dioxide Electrochemical Cell. ChemSusChem, 2016, 9, 1600-1606.	3.6	14
93	Structure of the Photo-catalytically Active Surface of SrTiO₃. Journal of the American Chemical Society, 2016, 138, 7816-7819.	6.6	64
94	In situ electrochemical characterization of poly-3,4-ethylenedioxythiophene/tetraalkylphenylene diamine films and their potential use in electrochemical energy storage devices. Journal of Electroanalytical Chemistry, 2016, 765, 65-72.	1.9	10
95	In Situ TEM for Quantitative Electrochemistry of Energy Systems. Microscopy and Microanalysis, 2015, 21, 1509-1510.	0.2	4
96	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
97	Unassisted HI photoelectrolysis using n-WSe₂ solar absorbers. Physical Chemistry Chemical Physics, 2015, 17, 13984-13991.	1.3	15
98	Operando X-ray Scattering and Spectroscopic Analysis of Germanium Nanowire Anodes in Lithium Ion Batteries. Langmuir, 2015, 31, 2028-2035.	1.6	33
99	Rapid and Efficient Redox Processes within 2D Covalent Organic Framework Thin Films. ACS Nano, 2015, 9, 3178-3183.	7.3	318
100	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
101	Synthesis of carbon supported ordered tetragonal pseudo-ternary Pt2Mâ€²Mâ€³ (MÂ=ÂFe, Co, Ni) nanoparticles and their activity for oxygen reduction reaction. Journal of Power Sources, 2015, 280, 459-466.	4.0	41
102	Morphology and Activity Tuning of Cu₃Pt/C Ordered Intermetallic Nanoparticles by Selective Electrochemical Dealloying. Nano Letters, 2015, 15, 1343-1348.	4.5	131
103	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
104	Synthesis and Characterization of Poly-3,4-ethylenedioxythiophene/2,5-Dimercapto-1,3,4-thiadiazole (PEDOT-DMcT) Hybrids. Electrochimica Acta, 2015, 167, 55-60.	2.6	21
105	Conductivity and Microstructure of Combinatorially Sputter-Deposited Taâ€“Tiâ€“Al Nitride Thin Films. Chemistry of Materials, 2015, 27, 4515-4524.	3.2	7
106	Origin of Multiple Peaks in the Potentiodynamic Oxidation of CO Adlayers on Pt and Ru-Modified Pt Electrodes. Journal of Physical Chemistry Letters, 2015, 6, 1899-1906.	2.1	38
107	Electrochemical lithiation-induced polymorphism of anthraquinone derivatives observed by operando X-ray diffraction. Physical Chemistry Chemical Physics, 2015, 17, 27665-27671.	1.3	6
108	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

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109	High power organic cathodes using thin films of electropolymerized benzidine polymers. Chemical Communications, 2015, 51, 14674-14677.	2.2	12
110	The Mechanism of the Oneâ€Step Synthesis of Hollowâ€Structured Li₃VO₄ as an Anode for Lithiumâ€Ion Batteries. Chemistry - A European Journal, 2014, 20, 5608-5612.	1.7	38
111	Single layer graphene as an electrochemical platform. Faraday Discussions, 2014, 172, 27-45.	1.6	11
112	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
113	Mechanistic insights into operational lithiumâ€“sulfur batteries by in situ X-ray diffraction and absorption spectroscopy. RSC Advances, 2014, 4, 18347.	1.7	122
114	A rechargeable Naâ€“CO₂/O₂battery enabled by stable nanoparticle hybrid electrolytes. Journal of Materials Chemistry A, 2014, 2, 17723-17729.	5.2	92
115	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
116	Generalized Platform for Antibody Detection using the Antibody Catalyzed Water Oxidation Pathway. Journal of the American Chemical Society, 2014, 136, 1879-1883.	6.6	30
117	Electrogenerated Chemiluminescence of Bithiophenes with Methylthio Functionalities. Journal of Physical Chemistry C, 2014, 118, 924-932.	1.5	5
118	An Electrochemical Quartz Crystal Microbalance Study of a Prospective Alkaline Anion Exchange Membrane Material for Fuel Cells: Anion Exchange Dynamics and Membrane Swelling. Journal of the American Chemical Society, 2014, 136, 5309-5322.	6.6	43
119	Breaking the Crowther limit: Combining depth-sectioning and tilt tomography for high-resolution, wide-field 3D reconstructions. Ultramicroscopy, 2014, 140, 26-31.	0.8	35
120	Nanoscale Imaging of Lithium Ion Distribution During In Situ Operation of Battery Electrode and Electrolyte. Nano Letters, 2014, 14, 1453-1459.	4.5	238
121	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
122	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
123	Key Parameters Governing the Energy Density of Rechargeable Li/S Batteries. Journal of Physical Chemistry Letters, 2014, 5, 882-885.	2.1	101
124	Amylopectin Wrapped Graphene Oxide/Sulfur for Improved Cyclability of Lithiumâ€“Sulfur Battery. ACS Nano, 2013, 7, 8801-8808.	7.3	181
125	Yolkâ€–Shell Structure of Polyaniline-Coated Sulfur for Lithiumâ€–Sulfur Batteries. Journal of the American Chemical Society, 2013, 135, 16736-16743.	6.6	734
126	Î²-Ketoenamine-Linked Covalent Organic Frameworks Capable of Pseudocapacitive Energy Storage. Journal of the American Chemical Society, 2013, 135, 16821-16824.	6.6	949

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127	Energy in the Age of Sustainability. Journal of Chemical Education, 2013, 90, 1411-1413.	1.1	11
128	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
129	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
130	An exchangeable-tip scanning probe instrument for the analysis of combinatorial libraries of electrocatalysts. Review of Scientific Instruments, 2013, 84, 024101.	0.6	9
131	Lithiumâ€“Sulfur Battery Cathode Enabled by Lithiumâ€“Nitrile Interaction. Journal of the American Chemical Society, 2013, 135, 763-767.	6.6	329
132	Li-Carboxylate Anode Structure-Property Relationships from Molecular Modeling. Chemistry of Materials, 2013, 25, 132-141.	3.2	75
133	Kinetics of Interfacial Electron Transfer at Single-Layer Graphene Electrodes in Aqueous and Nonaqueous Solutions. Langmuir, 2013, 29, 1683-1694.	1.6	106
134	Designing conducting polymer films for electrochemical energy storage technologies. RSC Advances, 2013, 3, 1957-1964.	1.7	32
135	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
136	Self-Poisoning during BH₄^{â€“} Oxidation at Pt and Au, and in Situ Poison Removal Procedures for BH₄^{â€“} Fuel Cells. Journal of Physical Chemistry C, 2013, 117, 1571-1581.	1.5	52
137	Synthesis and Electrochemical and Computational Analysis of Two New Families of Thiophene-Carbonyl Molecules. Journal of Physical Chemistry C, 2013, 117, 6022-6032.	1.5	26
138	High-rate electrochemical energy storage through Li+ intercalation pseudocapacitance. Nature Materials, 2013, 12, 518-522.	13.3	4,021
139	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
140	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
141	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
142	In Situ Electron Energy-Loss Spectroscopy in Liquids. Microscopy and Microanalysis, 2013, 19, 1027-1035.	0.2	140
143	High Throughput Thin Film Pt-M Alloys for Fuel Electrooxidation: Low Concentrations of M (M = Sn,) Tj ETQq1 1 0.784314 rgBT /Overlo 159, F880-F887.	1.3	16
144	Cyclometalated Ruthenium Oligomers with 2,3-Di(2-pyridyl)-5,6-diphenylpyrazine: A Combined Experimental, Computational, and Comparison Study with Noncyclometalated Analogous. Inorganic Chemistry, 2012, 51, 13312-13320.	1.9	15

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145	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
146	Quantification of the Surface Diffusion of Tripodal Binding Motifs on Graphene Using Scanning Electrochemical Microscopy. Journal of the American Chemical Society, 2012, 134, 6224-6236.	6.6	56
147	Mechanistic Studies of Formate Oxidation on Platinum in Alkaline Medium. Journal of Physical Chemistry C, 2012, 116, 5810-5820.	1.5	76
148	Rhenium Complexes of 2,3-Di(2-pyridyl)-5,6-diphenylpyrazine: Synthesis, Characterization, and Reactivity. Organometallics, 2012, 31, 1161-1167.	1.1	12
149	New Insights into the Mechanism and Kinetics of Adsorbed CO Electrooxidation on Platinum: Online Mass Spectrometry and Kinetic Monte Carlo Simulation Studies. Journal of Physical Chemistry C, 2012, 116, 11040-11053.	1.5	33
150	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
151	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
152	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
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