Debra R Rolison

List of Publications by Year
in descending order

177 papers	15,833 citations	28274 55 h-index	15732 125 g-index
185 all docs	185 docs citations	185 times ranked	15651 citing authors

#	Article	IF	Citations
1	Three-Dimensional Battery Architectures. Chemical Reviews, 2004, 104, 4463-4492.	47.7	1,146
2	Rechargeable nickelâ€“3D zinc batteries: An energy-dense, safer alternative to lithium-ion. Science, 2017, 356, 415-418.	12.6	1,015
3	Catalytic Nanoarchitectures--the Importance of Nothing and the Unimportance of Periodicity. Science, 2003, 299, 1698-1701.	12.6	985
4	Charge Transfer on the Nanoscale:â€‰ Current Status. Journal of Physical Chemistry B, 2003, 107, 6668-6697.	2.6	946
5	Three-Dimensional Battery Architectures. ChemInform, 2004, 35, no.	0.0	746
6	Multifunctional 3D nanoarchitectures for energy storage and conversion. Chemical Society Reviews, 2009, 38, 226-252.	38.1	744
7	Incorporation of Homogeneous, Nanoscale MnO2within Ultraporous Carbon Structures via Self-Limiting Electroless Deposition:Â Implications for Electrochemical Capacitors. Nano Letters, 2007, 7, 281-286.	9.1	565
8	Role of Hydrous Ruthenium Oxide in Ptâˆ'Ru Direct Methanol Fuel Cell Anode Electrocatalysts:Â The Importance of Mixed Electron/Proton Conductivity. Langmuir, 1999, 15, 774-779.	3.5	494
9	Structure of Hydrous Ruthenium Oxides:â€‰ Implications for Charge Storage. Journal of Physical Chemistry B, 1999, 103, 4825-4832.	2.6	373
10	Silica Sol as a Nanoglue: Flexible Synthesis of Composite Aerogels. Science, 1999, 284, 622-624.	12.6	366
11	Wiring zinc in three dimensions re-writes battery performanceâ€"dendrite-free cycling. Energy and Environmental Science, 2014, 7, 1117-1124.	30.8	350
12	Nanoscale design to enable the revolution in renewable energy. Energy and Environmental Science, 2009, 2, 559.	30.8	348
13	Electrically conductive oxide aerogels: new materials in electrochemistry. Journal of Materials Chemistry, 2001, 11, 963-980.	6.7	340
14	How To Make Electrocatalysts More Active for Direct Methanol OxidationAvoid PtRu Bimetallic Alloys!. Journal of Physical Chemistry B, 2000, 104, 9772-9776.	2.6	333
15	Zeolite-modified electrodes and electrode-modified zeolites. Chemical Reviews, 1990, 90, 867-878.	47.7	293
16	Local Atomic Structure and Conduction Mechanism of Nanocrystalline Hydrous RuO2 from X-ray Scattering. Journal of Physical Chemistry B, 2002, 106, 12677-12683.	2.6	275
17	Voltammetric Characterization of Ruthenium Oxide-Based Aerogels and Other RuO2Solids:Â The Nature of Capacitance in Nanostructured Materials. Langmuir, 1999, 15, 780-785.	3.5	274
18	Solâˆ'Gel-Derived Ceria Nanoarchitectures:â€‰ Synthesis, Characterization, and Electrical Properties. Chemistry of Materials, 2006, 18, 50-58.	6.7	219

#	Article	IF	Citations
19	Enhancing the Activity of Fuel-cell Reactions by Designing Three-dimensional Nanostructured Architectures:â€‰ Catalyst-modified Carbonâ^'Silica Composite Aerogels. Nano Letters, 2002, 2, 235-240.	9.1	200
20	Redox Deposition of Nanoscale Metal Oxides on Carbon for Next-Generation Electrochemical Capacitors. Accounts of Chemical Research, 2013, 46, 1062-1074.	15.6	172
21	Nanocrystalline Iron Oxide Aerogels as Mesoporous Magnetic Architectures. Journal of the American Chemical Society, 2004, 126, 16879-16889.	13.7	164
22	Durable Modification of Silica Aerogel Monoliths with Fluorescent 2,7-Diazapyrenium Moieties. Sensing Oxygen near the Speed of Open-Air Diffusion. Chemistry of Materials, 1999, 11, 2837-2845.	6.7	163
23	3-D Microbatteries. Electrochemistry Communications, 2003, 5, 120-123.	4.7	163
24	Electronic connection to the interior of a mesoporous insulator with nanowires of crystalline RuO2. Nature, 2000, 406, 169-172.	27.8	150
25	Using Three Dimensions in Catalytic Mesoporous Nanoarchitectures. Nano Letters, 2002, 2, 545-549.	9.1	147
26	Electrochemical energy storage to power the 21st century. MRS Bulletin, 2011, 36, 486-493.	3.5	139
27	Translating Materials-Level Performance into Device-Relevant Metrics for Zinc-Based Batteries. Joule, 2018, 2, 2519-2527.	24.0	134
28	Plasmonic enhancement of visible-light water splitting with Auâ€"TiO2 composite aerogels. Nanoscale, 2013, 5, 8073.	5.6	130
29	Architectural Design, Interior Decoration, and Three-Dimensional Plumbing en Route to Multifunctional Nanoarchitectures. Accounts of Chemical Research, 2007, 40, 854-862.	15.6	117
30	Colloidal Gold Aerogels:Â Preparation, Properties, and Characterization. Langmuir, 1999, 15, 674-681.	3.5	116
31	Retaining the 3D Framework of Zinc Sponge Anodes upon Deep Discharge in Znâ€"Air Cells. ACS Applied Materials & Interfaces, 2014, 6, 19471-19476.	8.0	116
32	Electrochemical behavior of dispersions of spherical ultramicroelectrodes. The Journal of Physical Chemistry, 1986, 90, 6392-6400.	2.9	115
33	Synthesis of Ruthenium Dioxideâ^'Titanium Dioxide Aerogels:Â Redistribution of Electrical Properties on the Nanoscale. Chemistry of Materials, 1997, 9, 1248-1255.	6.7	115
34	Topological Redox Isomers:â€‰ Surface Chemistry of Zeolite-Encapsulated Co(salen) and [Fe(bpy)3]2+ Complexes. Journal of Physical Chemistry B, 1997, 101, 1148-1157.	2.6	112
35	Improved lithium capacity of defective V2O5 materials. Solid State Ionics, 2002, 152-153, 99-104.	2.7	112
36	The right kind of interior for multifunctional electrode architectures: carbon nanofoam papers with aperiodic submicrometre pore networks interconnected in 3D. Energy and Environmental Science, 2011, 4, 1913.	30.8	111

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37	Ultrathin, Protective Coatings of Poly(o-phenylenediamine) as Electrochemical Proton Gates:â€‰ Making Mesoporous MnO2 Nanoarchitectures Stable in Acid Electrolytes. Nano Letters, 2003, 3, 1155-1161.	9.1	108
38	Zeolite-Modified Electrodes:Â Intra- versus Extrazeolite Electron Transfer. The Journal of Physical Chemistry, 1996, 100, 5849-5862.	2.9	96
39	Electroless Deposition of Nanoscale MnO[sub 2] on Ultraporous Carbon Nanoarchitectures: Correlation of Evolving Pore-Solid Structure and Electrochemical Performance. Journal of the Electrochemical Society, 2008, 155, A246.	2.9	93
40	Spectroelectrochemical Characterization of Nanostructured, Mesoporous Manganese Oxide in Aqueous Electrolytes. Journal of the Electrochemical Society, 2003, 150, A1161.	2.9	89
41	Electrogenerated coatings containing zeolites. Journal of Electroanalytical Chemistry and Interfacial Electrochemistry, 1984, 164, 205-210.	0.1	86
42	Something from Nothing: Enhancing Electrochemical Charge Storage with Cation Vacancies. Accounts of Chemical Research, 2013, 46, 1181-1191.	15.6	86
43	Silica Nanoarchitectures Incorporating Self-Organized Protein Superstructures with Gas-Phase Bioactivity. Nano Letters, 2003, 3, 1463-1467.	9.1	84
44	Electrocatalysis and Charge-Transfer Reactions at Redox-Modified Zeolites. Accounts of Chemical Research, 2000, 33, 737-744.	15.6	83
45	Combining battery-like and pseudocapacitive charge storage in 3D MnO<i>x</i>@carbon electrode architectures for zinc-ion cells. Sustainable Energy and Fuels, 2018, 2, 626-636.	4.9	81
46	Electrochemical Li-ion storage in defect spinel iron oxides: the critical role of cation vacancies. Energy and Environmental Science, 2011, 4, 1495.	30.8	80
47	Minimizing Shape Change at Zn Sponge Anodes in Rechargeable Niâ€"Zn Cells: Impact of Electrolyte Formulation. Journal of the Electrochemical Society, 2016, 163, A351-A355.	2.9	78
48	Deconvolving double-layer, pseudocapacitance, and battery-like charge-storage mechanisms in nanoscale LiMn2O4 at 3D carbon architectures. Electrochimica Acta, 2018, 275, 225-235.	5.2	78
49	Oxidation-stable plasmonic copper nanoparticles in photocatalytic TiO₂ nanoarchitectures. Nanoscale, 2017, 9, 11720-11729.	5.6	76
50	Analytical implications of zeolites in overlayers at electrodes. Talanta, 1991, 38, 27-35.	5.5	73
51	Multifunctional MnO₂â^'Carbon Nanoarchitectures Exhibit Battery and Capacitor Characteristics in Alkaline Electrolytes. Journal of Physical Chemistry C, 2009, 113, 17595-17598.	3.1	70
52	Robust 3D Zn Sponges Enable High-Power, Energy-Dense Alkaline Batteries. ACS Applied Energy Materials, 2019, 2, 212-216.	5.1	69
53	Nanoscale Polymer Electrolytes:Â Ultrathin Electrodeposited Poly(Phenylene Oxide) with Solid-State Ionic Conductivity. Journal of Physical Chemistry B, 2004, 108, 13079-13087.	2.6	65
54	Spectroelectrochemical Investigations of Cation-Insertion Reactions at Solâ^'Gel-Derived Nanostructured, Mesoporous Thin Films of Manganese Oxide. Journal of Physical Chemistry B, 2001, 105, 8712-8717.	2.6	64

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55	Differentiating Double-Layer, Psuedocapacitance, and Battery-like Mechanisms by Analyzing Impedance Measurements in Three Dimensions. ACS Applied Materials & Interfaces, 2020, 12, 14071-14078.	8.0	64
56	Sulfur-functionalized carbon aerogels: a new approach for loading high-surface-area electrode nanoarchitectures with precious metal catalysts. Journal of Non-Crystalline Solids, 2004, 350, 80-87.	3.1	56
57	The intersection of electrochemistry with zeolite science. Studies in Surface Science and Catalysis, 1994, , 543-586.	1.5	55
58	The Chemical State of Sulfur in Carbonâ€Supported Fuelâ€Cell Electrodes. Journal of the Electrochemical Society, 1996, 143, 813-819.	2.9	54
59	Ultraviolet and Visible Photochemistry of Methanol at 3D Mesoporous Networks: TiO₂and Auâ€“TiO₂. Journal of Physical Chemistry C, 2013, 117, 15035-15049.	3.1	49
60	Competitive Oxygen Evolution in Acid Electrolyte Catalyzed at Technologically Relevant Electrodes Painted with Nanoscale RuO₂. ACS Applied Materials & Interfaces, 2017, 9, 2387-2395.	8.0	48
61	Low-temperature CO oxidation at persistent low-valent Cu nanoparticles on TiO2 aerogels. Applied Catalysis B: Environmental, 2019, 252, 205-213.	20.2	47
62	Silica aerogels with enhanced durability, 30-nm mean pore-size, and improved immersibility in liquids. Journal of Non-Crystalline Solids, 2004, 350, 244-252.	3.1	44
63	Charge insertion into hybrid nanoarchitectures: mesoporous manganese oxide coated with ultrathin poly(phenylene oxide). Journal of Non-Crystalline Solids, 2004, 350, 73-79.	3.1	42
64	Correlating Changes in Electron Lifetime and Mobility on Photocatalytic Activity at Network-Modified TiO₂ Aerogels. Journal of Physical Chemistry C, 2015, 119, 17529-17538.	3.1	42
65	Reply to the Comment on â€œZeolite-Modified Electrodes:Â Intra- versus Extrazeolite Electron Transferâ€. The Journal of Physical Chemistry, 1996, 100, 8610-8611.	2.9	40
66	Controlling the pore-solid architecture of mesoporous, high surface area manganese oxides with the birnessite structure. Journal of Non-Crystalline Solids, 2001, 285, 288-294.	3.1	40
67	Carbon Nanofoam-Based Cathodes for Liâ€“O₂Batteries: Correlation of Poreâ€“Solid Architecture and Electrochemical Performance. Journal of the Electrochemical Society, 2013, 160, A1510-A1516.	2.9	40
68	3D Architectures for Batteries and Electrodes. Advanced Energy Materials, 2020, 10, 2002457.	19.5	40
69	Rethinking Multifunction in Three Dimensions for Miniaturizing Electrical Energy Storage. Electrochemical Society Interface, 2008, 17, 49-53.	0.4	40
70	Redesigning air cathodes for metalâ€“air batteries using MnOx-functionalized carbon nanofoam architectures. Journal of Power Sources, 2012, 207, 191-198.	7.8	39
71	Electrocatalytic Reactivity of Zeolite-Encapsulated Co(salen) with Benzyl Chloride. Journal of the American Chemical Society, 1997, 119, 12673-12674.	13.7	38
72	Architectural integration of the components necessary for electrical energy storage on the nanoscale and in 3D. Nanoscale, 2011, 3, 1731.	5.6	38

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73	Direct methanol oxidation at low overpotentials using Pt nanoparticles electrodeposited at ultrathin conductive RuO2 nanoskins. Journal of Materials Chemistry, 2012, 22, 5197.	6.7	36
74	Dye-sensitized titania aerogels as photovoltaic electrodes for electrochemical solar cells. Solar Energy Materials and Solar Cells, 2007, 91, 1066-1074.	6.2	35
75	Electrode-modified zeolites: electrode microstructures contained in and on a heterogeneous catalyst. The Journal of Physical Chemistry, 1989, 93, 5524-5531.	2.9	34
76	Projecting the Specific Energy of Rechargeable Zincâ€"Air Batteries. ACS Energy Letters, 2020, 5, 3405-3408.	17.4	34
77	Catalytic Desulfurization of Carbon Black on a Platinum Oxide Electrode. Langmuir, 1999, 15, 3302-3306.	3.5	33
78	Plasmonic Aerogels as a Three-Dimensional Nanoscale Platform for Solar Fuel Photocatalysis. Langmuir, 2017, 33, 9444-9454.	3.5	33
79	Using Nanoscopic Hosts, Magnetic Guests, and Field Alignment to Create Anisotropic Composite Gels and Aerogels. Nano Letters, 2002, 2, 63-67.	9.1	32
80	A simple synthesis of catalytically active, high surface area ceria aerogels. Journal of Non-Crystalline Solids, 2008, 354, 5509-5514.	3.1	32
81	Nickel Ferrite Aerogels with Monodisperse Nanoscale Building Blocksâ€"The Importance of Processing Temperature and Atmosphere. ACS Nano, 2008, 2, 784-790.	14.6	32
82	Fabricating architected zinc electrodes with unprecedented volumetric capacity in rechargeable alkaline cells. Energy Storage Materials, 2020, 27, 370-376.	18.0	32
83	Using an Oxide Nanoarchitecture To Make or Break a Proton Wire. Analytical Chemistry, 2005, 77, 7924-7932.	6.5	31
84	Carbon aerogels with ultrathin, electroactive poly(o-methoxyaniline) coatings for high-performance electrochemical capacitors. Journal of Non-Crystalline Solids, 2004, 350, 97-106.	3.1	29
85	Making the Most of a Scarce Platinum-Group Metal: Conductive Ruthenia Nanoskins on Insulating Silica Paper. Nano Letters, 2009, 9, 2316-2321.	9.1	28
86	An Arealâ€Energy Standard to Validate Airâ€Breathing Electrodes for Rechargeable Zincâ€"Air Batteries. Advanced Energy Materials, 2020, 10, 2001287.	19.5	28
87	Silver-Colloid-Nucleated CytochromecSuperstructures Encapsulated in Silica Nanoarchitectures. Langmuir, 2004, 20, 9276-9281.	3.5	27
88	High-Performance Structural Batteries. Joule, 2020, 4, 2240-2243.	24.0	27
89	Transmission Electron Microscopy Studies of the Nanoscale Structure and Chemistry of Pt50Ru50 Electrocatalysts. Microscopy and Microanalysis, 2002, 8, 50-57.	0.4	25
90	Synthesis and characterization of Mnâ€"FeOx aerogels with magnetic properties. Journal of Non-Crystalline Solids, 2004, 350, 182-188.	3.1	25

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91	Photocatalytic CO Oxidation over Nanoparticulate Au-Modified TiO₂ Aerogels: The Importance of Size and Intimacy. ACS Catalysis, 2020, 10, 14834-14846.	11.2	25
92	Modifying nanoscale silica with itself: a method to control surface properties of silica aerogels independently of bulk structure. Journal of Non-Crystalline Solids, 2001, 285, 29-36.	3.1	24
93	The effect of particle size and protein content on nanoparticle-gold-nucleated cytochrome c superstructures encapsulated in silica nanoarchitectures. Journal of Non-Crystalline Solids, 2004, 350, 31-38.	3.1	24
94	Designing high-performance electrochemical energy-storage nanoarchitectures to balance rate and capacity. Nanoscale, 2013, 5, 1649.	5.6	24
95	Achieving electrochemical capacitor functionality from nanoscale LiMn2O4 coatings on 3-D carbon nanoarchitectures. Journal of Materials Chemistry A, 2013, 1, 2431.	10.3	24
96	The importance of combining disorder with order for Li-ion insertion into cryogenically prepared nanoscopic ruthenia. Journal of Materials Chemistry, 2007, 17, 1292.	6.7	23
97	Direct Electrodeposition of Nanoscale Solid Polymer Electrolytes via Electropolymerization of Sulfonated Phenols. Electrochemical and Solid-State Letters, 2005, 8, A579.	2.2	22
98	Effect of temperature and atmosphere on the conductivity and electrochemical capacitance of single-unit-thick ruthenium dioxide. Journal of Electroanalytical Chemistry, 2010, 644, 155-163.	3.8	22
99	Low-cost green synthesis of zinc sponge for rechargeable, sustainable batteries. Sustainable Energy and Fuels, 2020, 4, 3363-3369.	4.9	22
100	Electronic Metalâ€“Support Interactions in the Activation of CO Oxidation over a Cu/TiO₂ Aerogel Catalyst. Journal of Physical Chemistry C, 2020, 124, 21491-21501.	3.1	21
101	Mesoporous Copper Nanoparticle/TiO₂ Aerogels for Room-Temperature Hydrolytic Decomposition of the Chemical Warfare Simulant Dimethyl Methylphosphonate. ACS Applied Nano Materials, 2020, 3, 3503-3512.	5.0	21
102	Aerogel Architectures Boost Oxygenâ€Evolution Performance of NiFe₂O<i>x</i> Spinels to Activity Levels Commensurate with Nickelâ€Rich Oxides. ChemElectroChem, 2016, 3, 1369-1375.	3.4	20
103	Selective Vapor Deposition of Hydrous RuO[sub 2] Thin Films. Journal of the Electrochemical Society, 2005, 152, C158.	2.9	19
104	Thermal [1,5] sigmatropic alkyl shifts of isoindenes. Journal of Organic Chemistry, 1979, 44, 2845-2849.	3.2	17
105	Studies of Chromium Carbide Electrodeposition in Molten Fluorides. Journal of the Electrochemical Society, 1990, 137, 178-183.	2.9	17
106	Improving the efficiency of titania aerogel-based photovoltaic electrodes by electrochemically grafting isopropyl moieties on the titania surface. Journal of Non-Crystalline Solids, 2004, 350, 107-112.	3.1	17
107	Defective by design: vanadium-substituted iron oxide nanoarchitectures as cation-insertion hosts for electrochemical charge storage. Journal of Materials Chemistry A, 2015, 3, 12059-12068.	10.3	17
108	Static and Time-Resolved Terahertz Measurements of Photoconductivity in Solution-Deposited Ruthenium Dioxide Nanofilms. Journal of Physical Chemistry C, 2017, 121, 4037-4044.	3.1	17

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109	Routes to 3D conformal solid-state dielectric polymers: electrodeposition versus initiated chemical vapor deposition. Materials Horizons, 2015, 2, 502-508.	12.2	16
110	Carbon nanofoam paper enables high-rate and high-capacity Na-ion storage. Energy Storage Materials, 2019, 21, 481-486.	18.0	15
111	Power of Aerogel Platforms to Explore Mesoscale Transport in Catalysis. ACS Applied Materials & Interfaces, 2020, 12, 41277-41287.	8.0	13
112	Capacity and phase stability of metal-substituted Î±-Ni(OH)₂ nanosheets in aqueous Niâ€"Zn batteries. Materials Advances, 2021, 2, 3060-3074.	5.4	13
113	Electrified microheterogeneous catalysis in low ionic strength media. Journal of the Chemical Society Chemical Communications, 1993, , 25.	2.0	12
114	Electrochemically induced surface modification of titanols in a `nanoglued' titania aerogelâ€"silica aerogel composite film. Journal of Non-Crystalline Solids, 2001, 285, 13-21.	3.1	12
115	Zirconia-Based Aerogels for Sorption and Degradation of Dimethyl Methylphosphonate. Industrial & Engineering Chemistry Research, 2020, 59, 19584-19592.	3.7	12
116	Stabilization of reduced copper on ceria aerogels for CO oxidation. Nanoscale Advances, 2020, 2, 4547-4556.	4.6	12
117	Characterization of multi-phase aerogels by contrast-matching SANS. Journal of Non-Crystalline Solids, 1998, 225, 234-238.	3.1	11
118	Carbon Nanofoam-Based Cathodes for Li-O₂ Batteries: Correlation of Pore-Solid Architecture and Electrochemical Performance. ECS Transactions, 2011, 35, 33-42.	0.5	11
119	3D-Addressable Redox: Modifying Porous Carbon Electrodes with Ferrocenated 2 nm Gold Nanoparticles. Journal of Physical Chemistry C, 2012, 116, 9283-9289.	3.1	11
120	Electroanalytical Assessment of the Effect of Ni:Fe Stoichiometry and Architectural Expression on the Bifunctional Activity of Nanoscale Ni_{<i>y</i>}Fe_{1â€"<i>y</i>}O<i>x</i>. Langmuir, 2017, 33, 9390-9397.	3.5	11
121	Intramolecular [1,5]sigmatropic alkyl shift in the isoindence system. Journal of the American Chemical Society, 1975, 97, 934-935.	13.7	10
122	Crystal engineering in 3D: converting nanoscale lamellar manganese oxide to cubic spinel while affixed to a carbon architecture. CrystEngComm, 2016, 18, 6035-6048.	2.6	9
123	Elucidating zinc-ion battery mechanisms in freestanding carbon electrode architectures decorated with nanocrystalline ZnMn₂O₄. Materials Advances, 2021, 2, 2730-2738.	5.4	9
124	Plasma Polymerized Films of Vinylferrocene on Thermally Oxidized Titanium and Singleâ€Crystal Titanium Dioxide. Journal of the Electrochemical Society, 1984, 131, 337-343.	2.9	8
125	Theme and Variations on Tantalumâ€Carbonate Reactions in Molten Fluorides. Journal of the Electrochemical Society, 1989, 136, 3760-3767.	2.9	8
126	Electrochemistry of transition metal complexes encapsulated into zeolites. Studies in Surface Science and Catalysis, 1995, 98, 114-115.	1.5	8

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127	Sonochemically induced decomposition of energetic materials in aqueous media. Chemosphere, 2003, 50, 1107-1114.	8.2	8
128	Dualâ€Function Air Cathode for Metalâ€“Air Batteries with Pulseâ€Power Capability. Advanced Energy Materials, 2013, 3, 584-588.	19.5	8
129	Trapping a Ru₂O₃ Corundum-like Structure at Ultrathin, Disordered RuO₂ Nanoskins Expressed in 3D. Journal of Physical Chemistry C, 2018, 122, 28895-28900.	3.1	8
130	Deciphering charge-storage mechanisms in 3D MnOx@carbon electrode nanoarchitectures for rechargeable zinc-ion cells. MRS Communications, 2019, 9, 99-106.	1.8	8
131	Microheterogeneous dispersion electrolysis with nanoscale electrode-modified zeolites. Journal of Electroanalytical Chemistry, 1997, 439, 97-105.	3.8	7
132	CAD/CAMâ€“designed 3D-printed electroanalytical cell for the evaluation of nanostructured gas-diffusion electrodes. Nanotechnology, 2016, 27, 174002.	2.6	7
133	Editors' Choiceâ€"Electrocatalyzed Oxygen Reduction at Manganese Oxide Nanoarchitectures: From Electroanalytical Characterization to Device-Relevant Performance in Composite Electrodes. Journal of the Electrochemical Society, 2018, 165, H777-H783.	2.9	7
134	Designing Oxide Aerogels With Enhanced Sorptive and Degradative Activity for Acute Chemical Threats. Frontiers in Materials, 2021, 8, .	2.4	7
135	Composite aerogels for sensing applications. , 1999, 3790, 38.		6
136	Transient Optical and Terahertz Spectroscopy of Nanoscale Films of RuO2. Plasmonics, 2017, 12, 743-750.	3.4	6
137	NGenE 2021: Electrochemistry Is Everywhere. ACS Energy Letters, 2022, 7, 368-374.	17.4	6
138	Self-Limiting Electropolymerization of o-Aminophenol on Ultraporous Carbon Nanoarchitectures for Electrochemical Capacitor Applications. ECS Transactions, 2008, 6, 159-164.	0.5	5
139	Rewriting Electron-Transfer Kinetics at Pyrolytic Carbon Electrodes Decorated with Nanometric Ruthenium Oxide. Langmuir, 2017, 33, 9416-9425.	3.5	5
140	Quantifying an acceptable open-circuit corrosion current for aluminumâ€“air batteries. Materials Advances, 2021, 2, 1595-1599.	5.4	5
141	Multifunctional carbon nano-architectures as designer platforms for electrochemical power sources. Proceedings of SPIE, 2010, , .	0.8	4
142	ELECTROCHEMICAL AND ELECTRIC-FIELD EFFECTS AT DISPERSIONS OF ZEOLITES. , 1993, , 699-706.		3
143	Controlling the Sensitivity, Specificity, and Time Signature of Sensors through Architectural Design on the Nanoscale. ECS Transactions, 2009, 19, 171-179.	0.5	3
144	Carbon Ductwork with Nanometric Walls and Micron-to-Submicron Inner Diameters. ECS Journal of Solid State Science and Technology, 2013, 2, M3078-M3083.	1.8	3

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145	Sustainable Electrocatalytic Architectures Enable Rechargeable Zincâ€"Air Batteries with Low Voltage Hysteresis. ACS Applied Energy Materials, 2020, 3, 10485-10494.	5.1	3
146	CeO₂ Aerogel-Induced Resilience of Catalytic Ni(OH)₂ under Oxidizing Conditions. Chemistry of Materials, 0, , .	6.7	3
147	Cytochrome c Stabilization and Immobilization in Aerogels. Methods in Molecular Biology, 2011, 679, 193-205.	0.9	2
148	Redox Cycling within Nanoparticle-Nucleated Protein Superstructures: Electron Transfer between Nanoparticulate Gold, Molecular Reductant, and Cytochrome c. Journal of Physical Chemistry B, 2021, 125, 1735-1745.	2.6	2
149	Cytochrome c Stabilization and Immobilization in Aerogels. Methods in Molecular Biology, 2017, 1504, 149-163.	0.9	2
150	Sodiation-Induced Electrochromism in Carbon Nanofoamâ€"Paper Electrodes. Journal of the Electrochemical Society, 2022, 169, 060514.	2.9	2
151	3D architectures are not just for microbatteries anymore. , 2011, , .		1
152	Preface to the Fundamental Interfacial Science for Energy Applications Special Issue. Langmuir, 2017, 33, 9245-9245.	3.5	1
153	Pyrolytic Carbon Films with Tunable Electronic Structure and Surface Functionality: A Planar Standâ€in for Electroanalysis of Energyâ€Relevant Reactions. ChemElectroChem, 2020, 7, 672-683.	3.4	1
154	Enhancing Li-ion capacity and rate capability in cation-defective vanadium ferrite aerogels via aluminum substitution. RSC Advances, 2021, 11, 14495-14503.	3.6	1
155	Zinc-Sponge Battery Electrodes that Suppress Dendrites. Journal of Visualized Experiments, 2020, , .	0.3	1
156	Rechargeable Znâ€"Air Batteries Enabled By Zn Sponge Anodes and Bi(tri?)Functional Cathodes. ECS Meeting Abstracts, 2017, , .	0.0	1
157	A Title IX Challenge. Chemical & Engineering News, 2000, 78, 5.	0.1	0
158	Nanoscale Structural and Chemical Segregation in Pt50Ru50 Electrocatalysts. Microscopy and Microanalysis, 2001, 7, 1112-1113.	0.4	0
159	Energy and the Environment: Perpetual Dilemma or Nanotechnology-Enabled Opportunity?. ACS Symposium Series, 2004, , 324-330.	0.5	0
160	Aberration-corrected Scanning Transmission Electron Microscopy and Spectroscopy of Nonprecious Metal Nanoparticles in Titania Aerogels. Microscopy and Microanalysis, 2016, 22, 324-325.	0.4	0
161	Women in Science. Science, 1992, 256, 1614-1614.	12.6	0
162	From Designing and Characterizing Multifunctional Nanoarchitectures to Commercializing Zinc Spongeâ€"Based Alkaline Batteries That Refuse to Launch Dendrites. ECS Meeting Abstracts, 2017, , .	0.0	0

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163	(Invited) Capabilities and Opportunities for Next-Generation Agâ€“3D Zn Batteries. ECS Meeting Abstracts, 2017, , .	0.0	0
164	Electroless Deposition of Disordered RuO2 Nanoskins: An Example from the Fourth Quadrant of Electronic Materials. ECS Meeting Abstracts, 2017, , .	0.0	0
165	Interfacial Phenomena at the Junction of Conductive Carbon with Pseudocapacitive Metal Oxides and Polymers: Implications for Electrochemical Capacitors. ECS Meeting Abstracts, 2017, , .	0.0	0
166	(Invited) (More) Uniform Control of Oxidative Dissolution, Complexation, and Electrodeposition Using 3D Wiring of Aperiodic Zinc Sponge Anodes in Rechargeable Alkaline Batteries. ECS Meeting Abstracts, 2018, , .	0.0	0
167	(Invited) Deconvolution of Double-Layer, Pseudocapacitance, and Battery-like Contributions to Charge Storage in MnOx@Carbon Electrode Architectures and Interfaces. ECS Meeting Abstracts, 2018, , .	0.0	0
168	(Keynote) Architectural Re-Design of Zinc Anodes Physically Thwarts Dendrite Formationâ€"with Zinc Batteries Now Rechargeable, Whatâ€™s Next?. ECS Meeting Abstracts, 2019, , .	0.0	0
169	(Invited) Carbon Fiber-Paperâ€“Supported Carbon Nanofoams As Free-Standing Electrode Architectures for Reversible Sodium-Ion Storage. ECS Meeting Abstracts, 2019, , .	0.0	0
170	(Invited) The Intersection of Battery and Capacitor Function in Nanostructured Manganese Oxides for Zinc-Ion Cells: Insights from 2D Interfaces to 3D Architectures. ECS Meeting Abstracts, 2019, , .	0.0	0
171	(Keynote) Effect of Architecturally Expressed Electrodes and Catalysts on Energy Storage/Conversion in Aqueous Electrolytes. ECS Meeting Abstracts, 2019, , .	0.0	0
172	(Invited) Electrochemical â€œZinc-Ionâ€•Storage at Nanostructured Manganese Oxides: Mechanistic Insights from 2D Interfaces to Advanced 3D Electrode Architectures. ECS Meeting Abstracts, 2019, , .	0.0	0
173	Opportunities for 3D Zinc Anode Architectures in Aqueous Batteries. ECS Meeting Abstracts, 2019, , .	0.0	0
174	Protons in Catalytic Architectures: Near (NMR) and Far (Impedance). Journal of the Electrochemical Society, 2022, 169, 036514.	2.9	0
175	(Keynote)ÂIntegrating Catalytic and Transport Functions within Multiscale Architectures. ECS Meeting Abstracts, 2018, MA2018-01, 1843-1843.	0.0	0
176	(Invited) Distinguishing High-Rate Electrochemical Mechanisms Via Advanced Impedance Spectroscopy Analysis. ECS Meeting Abstracts, 2022, MA2022-01, 1875-1875.	0.0	0
177	(Invited) Sustainability, Safety, Scalability, Rechargeability, and Manufacturability Courtesy of Architected Zinc Anodes. ECS Meeting Abstracts, 2022, MA2022-01, 456-456.	0.0	0