Bruce S Dunn

List of Publications by Year
in descending order

236 papers	62,556 citations	9234 74 h-index	1280 225 g-index
243 all docs	243 docs citations	243 times ranked	40571 citing authors

#	Article	IF	Citations
1	Electrical Energy Storage for the Grid: A Battery of Choices. Science, 2011, 334, 928-935.	6.0	11,724
2	Where Do Batteries End and Supercapacitors Begin?. Science, 2014, 343, 1210-1211.	6.0	4,605
3	Pseudocapacitive oxide materials for high-rate electrochemical energy storage. Energy and Environmental Science, 2014, 7, 1597.	15.6	4,223
4	High-rate electrochemical energy storage through Li+ intercalation pseudocapacitance. Nature Materials, 2013, 12, 518-522.	13.3	4,021
5	Pseudocapacitive Contributions to Electrochemical Energy Storage in TiO₂ (Anatase) Nanoparticles. Journal of Physical Chemistry C, 2007, 111, 14925-14931.	1.5	3,863
6	Ordered mesoporous Î±-MoO3 with iso-oriented nanocrystalline walls for thin-film pseudocapacitors. Nature Materials, 2010, 9, 146-151.	13.3	2,801
7	Design and Mechanisms of Asymmetric Supercapacitors. Chemical Reviews, 2018, 118, 9233-9280.	23.0	2,379
8	Oxygen vacancies enhance pseudocapacitive charge storage properties of MoO3â^'x. Nature Materials, 2017, 16, 454-460.	13.3	1,632
9	Continuous formation of supported cubic and hexagonal mesoporous films by solâ€“gel dip-coating. Nature, 1997, 389, 364-368.	13.7	1,417
10	Multidimensional materials and device architectures for future hybrid energy storage. Nature Communications, 2016, 7, 12647.	5.8	1,281
11	Three-dimensional holey-graphene/niobia composite architectures for ultrahigh-rate energy storage. Science, 2017, 356, 599-604.	6.0	1,229
12	Three-Dimensional Battery Architectures. Chemical Reviews, 2004, 104, 4463-4492.	23.0	1,146
13	Achieving high energy density and high power density with pseudocapacitive materials. Nature Reviews Materials, 2020, 5, 5-19.	23.3	1,138
14	Templated Nanocrystal-Based Porous TiO₂ Films for Next-Generation Electrochemical Capacitors. Journal of the American Chemical Society, 2009, 131, 1802-1809.	6.6	887
15	Physical Interpretations of Nyquist Plots for EDLC Electrodes and Devices. Journal of Physical Chemistry C, 2018, 122, 194-206.	1.5	854
16	Highâ€Performance Supercapacitors Based on Intertwined CNT/V₂O₅ Nanowire Nanocomposites. Advanced Materials, 2011, 23, 791-795.	11.1	788
17	High-Performance Sodium-Ion Pseudocapacitors Based on Hierarchically Porous Nanowire Composites. ACS Nano, 2012, 6, 4319-4327.	7.3	688
18	Sol-gel encapsulation methods for biosensors. Analytical Chemistry, 1994, 66, 1120A-1127A.	3.2	664

#	Article	IF	Citations
19	Porous Oneâ€Dimensional Nanomaterials: Design, Fabrication and Applications in Electrochemical Energy Storage. Advanced Materials, 2017, 29, 1602300.	11.1	615
20	Polymer-modified halide perovskite films for efficient and stable planar heterojunction solar cells. Science Advances, 2017, 3, e1700106.	4.7	588
21	Understanding and applying coulombic efficiency in lithium metal batteries. Nature Energy, 2020, 5, 561-568.	19.8	526
22	High Performance Pseudocapacitor Based on 2D Layered Metal Chalcogenide Nanocrystals. Nano Letters, 2015, 15, 1911-1917.	4.5	495
23	Electrode Degradation in Lithium-Ion Batteries. ACS Nano, 2020, 14, 1243-1295.	7.3	484
24	The Effect of Crystallinity on the Rapid Pseudocapacitive Response of Nb₂O₅. Advanced Energy Materials, 2012, 2, 141-148.	10.2	461
25	A fundamental look at electrocatalytic sulfur reduction reaction. Nature Catalysis, 2020, 3, 762-770.	16.1	455
26	Sulfide Solid Electrolytes for Lithium Battery Applications. Advanced Energy Materials, 2018, 8, 1800933.	10.2	407
27	Mesoporous MoS₂ as a Transition Metal Dichalcogenide Exhibiting Pseudocapacitive Li and Naâ€Ion Charge Storage. Advanced Energy Materials, 2016, 6, 1501937.	10.2	395
28	Conformal Lithium Fluoride Protection Layer on Three-Dimensional Lithium by Nonhazardous Gaseous Reagent Freon. Nano Letters, 2017, 17, 3731-3737.	4.5	377
29	A general method to synthesize and sinter bulk ceramics in seconds. Science, 2020, 368, 521-526.	6.0	357
30	Electrically conductive oxide aerogels: new materials in electrochemistry. Journal of Materials Chemistry, 2001, 11, 963-980.	6.7	340
31	Tuning Molecular Interactions for Highly Reproducible and Efficient Formamidinium Perovskite Solar Cells via Adduct Approach. Journal of the American Chemical Society, 2018, 140, 6317-6324.	6.6	338
32	Pseudocapacitive Contributions to Charge Storage in Highly Ordered Mesoporous Group V Transition Metal Oxides with Iso-Oriented Layered Nanocrystalline Domains. Journal of the American Chemical Society, 2010, 132, 6982-6990.	6.6	320
33	Highâ€Performance Supercapacitors Based on Nanocomposites of Nb₂O₅ Nanocrystals and Carbon Nanotubes. Advanced Energy Materials, 2011, 1, 1089-1093.	10.2	312
34	Three-dimensional electrodes and battery architectures. MRS Bulletin, 2011, 36, 523-531.	1.7	272
35	Enhancing Pseudocapacitive Charge Storage in Polymer Templated Mesoporous Materials. Accounts of Chemical Research, 2013, 46, 1113-1124.	7.6	254
36	Mesoporous Li_xMn₂O₄Thin Film Cathodes for Lithium-Ion Pseudocapacitors. ACS Nano, 2016, 10, 7572-7581.	7.3	247

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37	Synthesis and electrochromic properties of mesoporous tungsten oxide. Journal of Materials Chemistry, 2001, 11, 92-97.	6.7	245
38	Electrochemical Kinetics of Nanostructured Nb₂O₅Electrodes. Journal of the Electrochemical Society, 2014, 161, A718-A725.	1.3	235
39	Probes of Pore Environment and Moleculeâ^'Matrix Interactions in Solâ^'Gel Materials. Chemistry of Materials, 1997, 9, 2280-2291.	3.2	233
40	Pseudocapacitive Charge Storage in Thick Composite MoS₂ Nanocrystalâ€Based Electrodes. Advanced Energy Materials, 2017, 7, 1601283.	10.2	230
41	Creating Lithiumâ€Ion Electrolytes with Biomimetic Ionic Channels in Metalâ€"Organic Frameworks. Advanced Materials, 2018, 30, e1707476.	11.1	230
42	Challenges for and Pathways toward Li-Metal-Based All-Solid-State Batteries. ACS Energy Letters, 0, , 1399-1404.	8.8	228
43	Synthesis and Charge Storage Properties of Hierarchical Niobium Pentoxide/Carbon/Niobium Carbide (MXene) Hybrid Materials. Chemistry of Materials, 2016, 28, 3937-3943.	3.2	210
44	Enzymatic activity of glucose oxidase encapsulated in transparent glass by the sol-gel method. Chemistry of Materials, 1992, 4, 495-497.	3.2	197
45	Highâ€Performance Supercapacitors Based on Hierarchically Porous Graphite Particles. Advanced Energy Materials, 2011, 1, 551-556.	10.2	194
46	Hierarchical battery electrodes based on inverted opal structures. Journal of Materials Chemistry, 2002, 12, 2859-2861.	6.7	190
47	Fabrication and properties of a carbon/polypyrrole three-dimensional microbattery. Journal of Power Sources, 2008, 178, 795-800.	4.0	175
48	Protection of lithium metal surfaces using tetraethoxysilane. Journal of Materials Chemistry, 2011, 21, 1593-1599.	6.7	171
49	The Development of Pseudocapacitive Properties in Nanosized-MoO₂. Journal of the Electrochemical Society, 2015, 162, A5083-A5090.	1.3	170
50	3-D Microbatteries. Electrochemistry Communications, 2003, 5, 120-123.	2.3	163
51	Sodium Vanadium Fluorophosphates (NVOPF) Array Cathode Designed for Highâ€Rate Full Sodium Ion Storage Device. Advanced Energy Materials, 2018, 8, 1800058.	10.2	157
52	Physical Interpretations of Electrochemical Impedance Spectroscopy of Redox Active Electrodes for Electrical Energy Storage. Journal of Physical Chemistry C, 2018, 122, 24499-24511.	1.5	149
53	Controlled Placement of Luminescent Molecules and Polymers in Mesostructured Solâ^'Gel Thin Films. Journal of the American Chemical Society, 2001, 123, 1248-1249.	6.6	144
54	Steric Impediment of Ion Migration Contributes to Improved Operational Stability of Perovskite Solar Cells. Advanced Materials, 2020, 32, e1906995.	11.1	142

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55	Naphthalene Diimide Based Materials with Adjustable Redox Potentials: Evaluation for Organic Lithium-Ion Batteries. Chemistry of Materials, 2014, 26, 7151-7157.	3.2	141
56	Patterned Hexagonal Arrays of Living Cells in Solâ^'Gel Silica Films. Journal of the American Chemical Society, 2000, 122, 6488-6489.	6.6	136
57	Synthesis of sol-gel encapsulated heme proteins with chemical sensing properties. Journal of Materials Chemistry, 1999, 9, 45-53.	6.7	134
58	High Areal Energy Density 3D Lithium-Ion Microbatteries. Joule, 2018, 2, 1187-1201.	11.7	134
59	On the Correlation between Mechanical Flexibility, Nanoscale Structure, and Charge Storage in Periodic Mesoporous CeO₂ Thin Films. ACS Nano, 2010, 4, 967-977.	7.3	127
60	Development of a Three-Dimensional Bioengineering Technology to Generate Lung Tissue for Personalized Disease Modeling. Stem Cells Translational Medicine, 2017, 6, 622-633.	1.6	127
61	Multiply Doped Nanostructured Silicate Solâ^'Gel Thin Films:Â Spatial Segregation of Dopants, Energy Transfer, and Distance Measurements. Journal of the American Chemical Society, 2005, 127, 2656-2665.	6.6	126
62	Synthesis and Electrochemical Properties of Vanadium Oxide Aerogels Prepared by a Freeze-Drying Process. Journal of the Electrochemical Society, 2004, 151, A666.	1.3	118
63	Dual redox mediators accelerate the electrochemical kinetics of lithium-sulfur batteries. Nature Communications, 2020, 11, 5215.	5.8	113
64	The Relationship Between Nanoscale Structure and Electrochemical Properties of Vanadium Oxide Nanorolls. Advanced Functional Materials, 2004, 14, 1197-1204.	7.8	103
65	In Situ Fluorescence Probing of the Chemical Changes during Sol-Gel Thin Film Formation. Journal of the American Ceramic Society, 1995, 78, 1640-1648.	1.9	99
66	Fabrication, Testing, and Simulation of All-Solid-State Three-Dimensional Li-Ion Batteries. ACS Applied Materials & Interfaces, 2016, 8, 32385-32391.	4.0	99
67	Pseudocapacitive Vanadiumâ€based Materials toward Highâ€Rate Sodiumâ€Ion Storage. Energy and Environmental Materials, 2020, 3, 221-234.	7.3	95
68	In Situ Luminescence Probing of the Chemical and Structural Changes during Formation of Dip-Coated Lamellar Phase Sodium Dodecyl Sulfate Solâ^'Gel Thin Films. Journal of the American Chemical Society, 2000, 122, 3739-3745.	6.6	93
69	Two-Photon Photographic Production of Three-Dimensional Metallic Structures within a Dielectric Matrix. Advanced Materials, 2000, 12, 1438-1441.	11.1	91
70	Preparation of High-Tc Superconducting Oxides by the Amorphous Citrate Process. Journal of the American Ceramic Society, 1987, 70, C-375-C-377.	1.9	86
71	Stabilization of Creatine Kinase Encapsulated in Silicate Solâ^'Gel Materials and Unusual Temperature Effects on Its Activity. Chemistry of Materials, 2002, 14, 4300-4306.	3.2	84
72	In Situ Probing by Fluorescence Spectroscopy of the Formation of Continuous Highly-Ordered Lamellar-Phase Mesostructured Thin Films. Langmuir, 1998, 14, 7331-7333.	1.6	82

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73	V2O5 aerogel as a versatile host for metal ions. Journal of Non-Crystalline Solids, 2004, 350, 67-72.	1.5	80
74	Protection of Lithium Metal Surfaces Using Chlorosilanes. Langmuir, 2007, 23, 11597-11602.	1.6	78
75	Opening the window for aqueous electrolytes. Science, 2015, 350, 918-918.	6.0	77
76	Nanostructured Pseudocapacitors Based on Atomic Layer Deposition of V₂O₅ onto Conductive Nanocrystalâ€based Mesoporous ITO Scaffolds. Advanced Functional Materials, 2014, 24, 6717-6728.	7.8	76
77	NASICON Na₃V₂(PO₄)₃ Enables Quasi-Two-Stage Na⁺ and Zn²⁺ Intercalation for Multivalent Zinc Batteries. Chemistry of Materials, 2020, 32, 3028-3035.	3.2	75
78	Na₂Ti₃O₇ Nanoplatelets and Nanosheets Derived from a Modified Exfoliation Process for Use as a High-Capacity Sodium-Ion Negative Electrode. ACS Applied Materials & Interfaces, 2017, 9, 1416-1425.	4.0	72
79	Ambient Pressure Synthesis of Aerogel-Like Vanadium Oxide and Molybdenum Oxide. Materials Research Bulletin, 1998, 33, 561-567.	2.7	70
80	Lithium-ion storage properties of titanium oxide nanosheets. Materials Horizons, 2014, 1, 219-223.	6.4	70
81	High-rate capability of Na₂FePO₄F nanoparticles by enhancing surface carbon functionality for Na-ion batteries. Journal of Materials Chemistry A, 2017, 5, 18707-18715.	5.2	70
82	Synthesis, Densification, and Conductivity Characteristics of BICUVOX Oxygenâ€Ionâ€Conducting Ceramics. Journal of the American Ceramic Society, 1997, 80, 2563-2568.	1.9	69
83	Molybdenum Polysulfide Chalcogels as High-Capacity, Anion-Redox-Driven Electrode Materials for Li-Ion Batteries. Chemistry of Materials, 2016, 28, 8357-8365.	3.2	69
84	Synthesis of ion conducting Li_xAl_ySi_zO thin films by atomic layer deposition. Journal of Materials Chemistry A, 2014, 2, 9566-9573.	5.2	68
85	Designing Pseudocapacitance for Nb₂O₅/Carbide-Derived Carbon Electrodes and Hybrid Devices. Langmuir, 2017, 33, 9407-9415.	1.6	67
86	Synthesis and electrochemical properties of niobium pentoxide deposited on layered carbide-derived carbon. Journal of Power Sources, 2015, 274, 121-129.	4.0	66
87	Nanostructured Sol-Gel Electrodes for Biofuel Cells. Journal of the Electrochemical Society, 2007, 154, A140.	1.3	65
88	Molecules in Glass: Probes, Ordered Assemblies, and Functional Materials. Accounts of Chemical Research, 2007, 40, 747-755.	7.6	65
89	A Metalâ€“Organic Framework with Tetrahedral Aluminate Sites as a Singleâ€Ion Li⁺ Solid Electrolyte. Angewandte Chemie - International Edition, 2018, 57, 16683-16687.	7.2	65
90	Differentiating Double-Layer, Psuedocapacitance, and Battery-like Mechanisms by Analyzing Impedance Measurements in Three Dimensions. ACS Applied Materials & Interfaces, 2020, 12, 14071-14078.	4.0	64

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91	Electrochemical properties of vanadium oxide aerogels. Science and Technology of Advanced Materials, 2003, 4, 3-11.	2.8	63
92	Lithium-Ion Insertion Properties of Solution-Exfoliated Germanane. ACS Nano, 2017, 11, 7995-8001.	7.3	63
93	Photonic Materials by the Sol-Gel Process. Journal of the Ceramic Society of Japan, 1991, 99, 878-893.	1.3	61
94	Programmable devices based on reversible solid-state doping of two-dimensional semiconductors with superionic silver iodide. Nature Electronics, 2020, 3, 630-637.	13.1	61
95	Nanoporous Tin with a Granular Hierarchical Ligament Morphology as a Highly Stable Li-Ion Battery Anode. ACS Applied Materials & Interfaces, 2017, 9, 293-303.	4.0	60
96	Amorphous VO₂: A Pseudocapacitive Platform for Highâ€Rate Symmetric Batteries. Advanced Materials, 2021, 33, e2103736.	11.1	60
97	Characterization of gold nanoparticle binding to microtubule filaments. Materials Science and Engineering C, 2010, 30, 20-26.	3.8	59
98	In Situ Fluorescence Probing of Molecular Mobility and Chemical Changes during Formation of Dip-Coated Solâ˜Gel Silica Thin Films. Chemistry of Materials, 2000, 12, 231-235.	3.2	55
99	Next generation pseudocapacitor materials from solâ€“gel derived transition metal oxides. Journal of Sol-Gel Science and Technology, 2011, 57, 330-335.	1.1	55
100	Monolithic Flexible Supercapacitors Integrated into Single Sheets of Paper and Membrane via Vapor Printing. Advanced Materials, 2017, 29, 1606091.	11.1	55
101	Two-dimensional quantum-sheet films with sub-1.2â€‰nm channels for ultrahigh-rate electrochemical capacitance. Nature Nanotechnology, 2022, 17, 153-158.	15.6	55
102	A Sol-Gel Solid Electrolyte with High Lithium Ion Conductivity. Chemistry of Materials, 1997, 9, 1004-1011.	3.2	54
103	Gold-Coated M13 Bacteriophage as a Template for Glucose Oxidase Biofuel Cells with Direct Electron Transfer. ACS Nano, 2016, 10, 324-332.	7.3	54
104	Future Directions for Electrochemical Capacitors. ACS Energy Letters, 2021, 6, 4311-4316.	8.8	53
105	Patternable, Solution-Processed Ionogels for Thin-Film Lithium-Ion Electrolytes. Joule, 2017, 1, 344-358.	11.7	52
106	Kinetics of Anode Reactions for a Yeastâ€Catalysed Microbial Fuel Cell. Fuel Cells, 2009, 9, 44-52.	1.5	51
107	Multielectron Redox and Insulator-to-Metal Transition upon Lithium Insertion in the Fast-Charging, Wadsley-Roth Phase PNb₉O₂₅. Chemistry of Materials, 2020, 32, 4553-4563.	3.2	50
108	Praseodymium Telluride: A High-Temperature, High-ZT Thermoelectric Material. Joule, 2018, 2, 698-709.	11.7	49

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109	Tuning Porosity and Surface Area in Mesoporous Silicon for Application in Li-Ion Battery Electrodes. ACS Applied Materials & Interfaces, 2017, 9, 19063-19073.	4.0	48
110	Structural and electrochemical properties of amorphous and crystalline molybdenum oxide aerogels. Solid State Ionics, 2001, 144, 31-40.	1.3	47
111	Application of Poly(3-hexylthiophene-2,5-diyl) as a Protective Coating for High Rate Cathode Materials. Chemistry of Materials, 2018, 30, 2589-2599.	3.2	47
112	Immunoassays for cortisol using antibody-doped solâ€“gel silica. Journal of Materials Chemistry, 2004, 14, 2311-2316.	6.7	43
113	Vanadium oxide aerogels: Nanostructured materials for enhanced energy storage. Comptes Rendus Chimie, 2010, 13, 130-141.	0.2	42
114	A three-dimensional human model of the fibroblast activation that accompanies bronchopulmonary dysplasia identifies Notch-mediated pathophysiology. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2016, 310, L889-L898.	1.3	42
115	Wafer-Scale Black Arsenicâ€“Phosphorus Thin-Film Synthesis Validated with Density Functional Perturbation Theory Predictions. ACS Applied Nano Materials, 2018, 1, 4737-4745.	2.4	42
116	Dihexyl-Substituted Poly(3,4-Propylenedioxythiophene) as a Dual Ionic and Electronic Conductive Cathode Binder for Lithium-Ion Batteries. Chemistry of Materials, 2020, 32, 9176-9189.	3.2	42
117	Controlling the Spontaneous Precipitation of Silver Nanoparticles in Sol-Gel Materials. Journal of Sol-Gel Science and Technology, 2000, 19, 249-252.	1.1	41
118	Microtubuleâ€Based Gold Nanowires and Nanowire Arrays. Small, 2008, 4, 1507-1515.	5.2	41
119	Simulations and Interpretation of Three-Electrode Cyclic Voltammograms of Pseudocapacitive Electrodes. Electrochimica Acta, 2016, 211, 420-429.	2.6	40
120	Isothermal calorimeter for measurements of time-dependent heat generation rate in individual supercapacitor electrodes. Journal of Power Sources, 2018, 374, 257-268.	4.0	40
121	3D Architectures for Batteries and Electrodes. Advanced Energy Materials, 2020, 10, 2002457.	10.2	40
122	Electrochemical Properties of Vanadium Oxide Aerogels and Aerogel Nanocomposites. Journal of Sol-Gel Science and Technology, 2003, 26, 641-644.	1.1	38
123	Inverse opal ceriaâ€“zirconia: architectural engineering for heterogeneous catalysis. Energy and Environmental Science, 2008, 1, 484.	15.6	37
124	3D Architectured Anodes for Lithiumâ€Ion Microbatteries with Large Areal Capacity. Energy Technology, 2014, 2, 362-369.	1.8	37
125	Effects of Temperature and Strain Rate on the Plastic Deformation of Fully Dense Polycrystalline Y1Ba2Cu3O7-x Superconductor. Journal of the American Ceramic Society, 1989, 72, 137-139.	1.9	36
126	Suppression of Electrochemically Driven Phase Transitions in Nanostructured MoS₂ Pseudocapacitors Probed Using Operando X-ray Diffraction. ACS Nano, 2019, 13, 1223-1231.	7.3	36

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127	High-Performance Solid-State Lithium-Ion Battery with Mixed 2D and 3D Electrodes. ACS Applied Energy Materials, 2020, 3, 8402-8409.	2.5	35
128	Low-potential lithium-ion reactivity of vanadium oxide aerogels. Electrochimica Acta, 2013, 88, 530-535.	2.6	34
129	Nanoscale, conformal polysiloxane thin film electrolytes for three-dimensional battery architectures. Materials Horizons, 2015, 2, 309-314.	6.4	34
130	Electrochemical Modeling of GITT Measurements for Improved Solid-State Diffusion Coefficient Evaluation. ACS Applied Energy Materials, 2021, 4, 11460-11469.	2.5	34
131	In situ monitoring of the electrochemically induced phase transition of thermodynamically metastable 1T-MoS₂ at nanoscale. Nanoscale, 2020, 12, 9246-9254.	2.8	33
132	Posttranslational modification of Î²-catenin is associated with pathogenic fibroblastic changes in bronchopulmonary dysplasia. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2017, 312, L186-L195.	1.3	32
133	Effect of Air Exposure on the Resistivity of Sodium Beta and Beta Aluminas. Journal of the American Ceramic Society, 1981, 64, 125-128.	1.9	31
134	Porous Sol-Gel Silicates Containing Gold Particles as Matrices for Surface-EnhancedRaman Spectroscopy. Journal of Raman Spectroscopy, 1996, 27, 775-783.	1.2	31
135	Passivating lithium electrodes with trimethylsilylacetylene. Solid State Ionics, 2001, 144, 295-299.	1.3	30
136	Hexagonal to Lamellar Mesostructural Changes in Silicate Films Caused by Organic Additives. Chemistry of Materials, 2002, 14, 5153-5162.	3.2	30
137	Correlated Polyhedral Rotations in the Absence of Polarons during Electrochemical Insertion of Lithium in ReO₃. ACS Energy Letters, 2018, 3, 2513-2519.	8.8	30
138	NMR Relaxometry and Diffusometry Analysis of Dynamics in Ionic Liquids and Ionogels for Use in Lithium-Ion Batteries. Journal of Physical Chemistry B, 2020, 124, 6843-6856.	1.2	30
139	Photopatternable hydroxide ion electrolyte for solid-state micro-supercapacitors. Joule, 2021, 5, 2466-2478.	11.7	30
140	Micromachining of mesoporous oxide films for microelectromechanical system structures. Journal of Materials Research, 2002, 17, 2121-2129.	1.2	28
141	iCVD Cyclic Polysiloxane and Polysilazane as Nanoscale Thin-Film Electrolyte: Synthesis and Properties. Macromolecular Rapid Communications, 2016, 37, 446-452.	2.0	28
142	Frontiers in Î²â€³-Alumina Research. MRS Bulletin, 1989, 14, 22-30.	1.7	27
143	Biomolecular materials based on sol-gel encapsulated proteins. Journal of Sol-Gel Science and Technology, 1994, 2, 791-795.	1.1	27
144	Molecular Motion and Environmental Rigidity in the Framework and Ionic Interface Regions of Mesostructured Silica Thin Films. Journal of Physical Chemistry B, 2001, 105, 10335-10339.	1.2	27

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145	A Group of Cyclic Siloxane and Silazane Polymer Films as Nanoscale Electrolytes for Microbattery Architectures. Macromolecules, 2015, 48, 5222-5229.	2.2	27
146	High Surfaceâ€Area Ceria Aerogel. Journal of the American Ceramic Society, 2004, 87, 1442-1445.	1.9	26
147	Effects of Constituent Materials on Heat Generation in Individual EDLC Electrodes. Journal of the Electrochemical Society, 2018, 165, A1547-A1557.	1.3	26
148	Optical characteristics of SiO2 photonic band-gap crystal with ferroelectric perovskite oxide. Applied Physics Letters, 2002, 81, 4440-4442.	1.5	24
149	Operando calorimetry informs the origin of rapid rate performance in microwave-prepared TiNb<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" id="d1e860" altimg="si117.svg"><mml:msub><mml:mrow /><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:math>O<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" id="d1e868" altimg="si118.svg"><mml:msub><mml:mrow /><mml:mrow><mml:mn>7</mml:mn></mml:mrow></mml:msub></mml:math>.	4.0	24
150	Characterization of Pore Size Distribution by Infrared Scattering in Highly Dense ZnS. Journal of the American Ceramic Society, 1993, 76, 2086-2092.	1.9	23
151	Designing the Charge Storage Properties of Liâ€Exchanged Sodium Vanadium Fluorophosphate for Powering Implantable Biomedical Devices. Advanced Energy Materials, 2019, 9, 1900226.	10.2	23
152	Enhancing the Ionic Conductivity of Poly(3,4-propylenedioxythiophenes) with Oligoether Side Chains for Use as Conductive Cathode Binders in Lithium-Ion Batteries. Chemistry of Materials, 2022, 34, 2672-2686.	3.2	23
153	Growth Temperature and Electrochemical Performance in Vapor-Deposited Poly(3,4-ethylenedioxythiophene) Thin Films for High-Rate Electrochemical Energy Storage. ACS Applied Energy Materials, 2018, 1, 7093-7105.	2.5	22
154	Enzymatic activity of oxalate oxidase and kinetic measurements by optical methods in transparent sol-gel monoliths. Journal of Sol-Gel Science and Technology, 1996, 7, 117-121.	1.1	21
155	Encapsulation of the ferritin protein in sol-gel derived silica glasses. Journal of Sol-Gel Science and Technology, 1996, 7, 109-116.	1.1	20
156	Synthesis and Characterization of Vacancy-Doped Neodymium Telluride for Thermoelectric Applications. Chemistry of Materials, 2019, 31, 4460-4468.	3.2	20
157	Thermal signature of ion intercalation and surface redox reactions mechanisms in model pseudocapacitive electrodes. Electrochimica Acta, 2019, 307, 512-524.	2.6	20
158	Tuning ligament shape in dealloyed nanoporous tin and the impact of nanoscale morphology on its applications in Na-ion alloy battery anodes. Physical Review Materials, 2018, 2, .	0.9	20
159	Panoramic View of Electrochemical Pseudocapacitor and Organic Solar Cell Research in Molecularly Engineered Energy Materials (MEEM). Journal of Physical Chemistry C, 2014, 118, 19505-19523.	1.5	19
160	Synthesis and Properties of a Photopatternable Lithiumâ€Ion Conducting Solid Electrolyte. Advanced Materials, 2018, 30, 1703772.	11.1	19
161	Inâ€…Operando Calorimetric Measurements for Activated Carbon Electrodes in Ionic Liquid Electrolytes under Large Potential Windows. ChemSusChem, 2020, 13, 1013-1026.	3.6	19
162	Nanoconfined Proteins and Enzymes: Solâ€”Gel-Based Biomolecular Materials. ACS Symposium Series, 1996, , 351-365.	0.5	18

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163	Mechanical properties of aerogel-like thin films used for MEMS. Journal of Micromechanics and Microengineering, 2004, 14, 681-686.	1.5	18
164	Solâ€“gel encapsulated lithium polysulfide catholyte and its application in lithiumâ€“sulfur batteries. Materials Horizons, 2016, 3, 137-144.	6.4	18
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