

Eric Stach

List of Publications by Year in descending order

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449
papers

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citations

5126

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all docs

473
docs citations

473
times ranked

61286
citing authors

#	ARTICLE	IF	CITATIONS
1	Shifts in valence states in bimetallic MXenes revealed by electron energy-loss spectroscopy (EELS). 2D Materials, 2022, 9, 025004.	2.0	11
2	Water-gas shift reaction over supported Au nanoparticles. Journal of Catalysis, 2022, 405, 475-488.	3.1	6
3	Dynamical Change of Valence States and Structure in NiCu ₃ Nanoparticles during Redox Cycling. Journal of Physical Chemistry C, 2022, 126, 1991-2002.	1.5	14
4	Evidence for redispersion of Ni on LaMnO ₃ films following high-temperature oxidation. Journal of Catalysis, 2022, , .	3.1	10
5	Decoding reactive structures in dilute alloy catalysts. Nature Communications, 2022, 13, 832.	5.8	35
6	Light-matter coupling in large-area van der Waals superlattices. Nature Nanotechnology, 2022, 17, 182-189.	15.6	49
7	Higher loadings of Pt single atoms and clusters over reducible metal oxides: application to C-O bond activation. Catalysis Science and Technology, 2022, 12, 2920-2928.	2.1	7
8	Structural and spectroscopic characterization of pyrene derived carbon nano dots: a single-particle level analysis. Nanoscale, 2022, 14, 3568-3578.	2.8	6
9	Microwave Heating of Nanocrystals for Rapid, Low-Aggregation Intermetallic Phase Transformations. , 2022, 4, 823-830.		9
10	Dilute Alloys Based on Au, Ag, or Cu for Efficient Catalysis: From Synthesis to Active Sites. Chemical Reviews, 2022, 122, 8758-8808.	23.0	50
11	Synthesis and Characterization of Core-Shell Cu-Ru, Cu-Rh, and Cu-Ir Nanoparticles. Journal of the American Chemical Society, 2022, 144, 7919-7928.	6.6	13
12	High-Density, Localized Quantum Emitters in Strained 2D Semiconductors. ACS Nano, 2022, 16, 9651-9659.	7.3	21
13	Interfacial Reaction and Diffusion at the One-Dimensional Interface of Two-Dimensional PtSe ₂ . Nano Letters, 2022, 22, 4733-4740.	4.5	3
14	Z-Contrast Enhancement in Au-Pt Nanocatalysts by Correlative X-ray Absorption Spectroscopy and Electron Microscopy: Implications for Composition Determination. ACS Applied Nano Materials, 2022, 5, 8775-8782.	2.4	3
15	Atomic Fe Dispersed Hierarchical Mesoporous Fe-N-C Nanostructures for an Efficient Oxygen Reduction Reaction. ACS Catalysis, 2021, 11, 74-81.	5.5	147
16	Anomalous metal vaporization from Pt/Pd/Al ₂ O ₃ under redox conditions. Nanoscale, 2021, 13, 11427-11438.	2.8	4
17	Mechanism and Kinetics of Methane Oxidation to Methanol Catalyzed by AuPd Nanocatalysts at Low Temperature. ACS Catalysis, 2021, 11, 2837-2845.	5.5	12
18	Direct Optoelectronic Imaging of 2D Semiconductor-3D Metal Buried Interfaces. ACS Nano, 2021, 15, 5618-5630.	7.3	35

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19	Sub-µs Microsecond Polarization Switching in (Al,Sc)N Ferroelectric Capacitors Grown on Complementary Metal-Oxide-Semiconductor-Compatible Aluminum Electrodes. <i>Physica Status Solidi - Rapid Research Letters</i> , 2021, 15, 2000575.	1.2	39
20	Surface Facet Engineering in Nanoporous Gold for Low-Loading Catalysts in Aluminum-Air Batteries. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 13097-13105.	4.0	14
21	Resilient three-dimensional ordered architectures assembled from nanoparticles by DNA. <i>Science Advances</i> , 2021, 7, .	4.7	45
22	Insights into the Degradation Mechanism of Nanoporous Alloy-Type Li-Ion Battery Anodes. <i>ACS Energy Letters</i> , 2021, 6, 1749-1756.	8.8	29
23	Modified MAX Phase Synthesis for Environmentally Stable and Highly Conductive Ti_3C_2 MXene. <i>ACS Nano</i> , 2021, 15, 6420-6429.	7.3	417
24	Post-CMOS Compatible Aluminum Scandium Nitride/2D Channel Ferroelectric Field-Effect-Transistor Memory. <i>Nano Letters</i> , 2021, 21, 3753-3761.	4.5	83
25	Efficacy of boron nitride encapsulation against plasma-processing of 2D semiconductor layers. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2021, 39, .	0.9	4
26	Nanoscale Chemical and Structural Analysis during <i>In Situ</i> Scanning/Transmission Electron Microscopy in Liquids. <i>ACS Nano</i> , 2021, 15, 10228-10240.	7.3	29
27	Aluminum scandium nitride-based metal-ferroelectric-metal diode memory devices with high on/off ratios. <i>Applied Physics Letters</i> , 2021, 118, .	1.5	49
28	Dilute Pd-in-Au alloy RCT-SiO ₂ catalysts for enhanced oxidative methanol coupling. <i>Journal of Catalysis</i> , 2021, 404, 943-953.	3.1	13
29	Quantifying Competitive Degradation Processes in Supported Nanocatalyst Systems. <i>Nano Letters</i> , 2021, 21, 5324-5329.	4.5	10
30	Nanoscale Structural and Chemical Properties of Ferroelectric Aluminum Scandium Nitride Thin Films. <i>Journal of Physical Chemistry C</i> , 2021, 125, 14394-14400.	1.5	11
31	In situ Transmission Electron Microscopy for Data-driven Modeling of Nanoparticle Evolution. <i>Microscopy and Microanalysis</i> , 2021, 27, 1312-1313.	0.2	1
32	Using In-Situ TEM to Investigate the Role of Lithium Iodide Addition to Lithium Thiophosphate. <i>Microscopy and Microanalysis</i> , 2021, 27, 3426-3427.	0.2	0
33	Electron energy loss spectroscopy of sub-10 nm 2D MoS ₂ crystals. <i>Microscopy and Microanalysis</i> , 2021, 27, 1210-1211.	0.2	0
34	Exploiting Microreactors for Correlative Studies of Working Catalysts With Electrons And X-Rays. <i>Microscopy and Microanalysis</i> , 2021, 27, 148-149.	0.2	0
35	Polyethylene Hydrogenolysis at Mild Conditions over Ruthenium on Tungstated Zirconia. <i>Jacs Au</i> , 2021, 1, 1422-1434.	3.6	95
36	Autonomous experimentation systems for materials development: A community perspective. <i>Matter</i> , 2021, 4, 2702-2726.	5.0	143

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37	Electrical breakdown strength enhancement in aluminum scandium nitride through a compositionally modulated periodic multilayer structure. <i>Journal of Applied Physics</i> , 2021, 130, .	1.1	11
38	Structural and Valence State Modification of Cobalt in CoPt Nanocatalysts in Redox Conditions. <i>ACS Nano</i> , 2021, 15, 20619-20632.	7.3	17
39	Achieving High Selectivity for Alkyne Hydrogenation at High Conversions with Compositionally Optimized PdAu Nanoparticle Catalysts in Raspberry Colloid-Templated SiO ₂ . <i>ACS Catalysis</i> , 2020, 10, 441-450.	5.5	61
40	New Role of Pd Hydride as a Sensor of Surface Pd Distributions in Pd ⁺ Au Catalysts. <i>ChemCatChem</i> , 2020, 12, 717-721.	1.8	12
41	Changes in Ni-NiO equilibrium due to LaFeO ₃ and the effect on dry reforming of CH ₄ . <i>Journal of Catalysis</i> , 2020, 381, 561-569.	3.1	30
42	Using <i>in situ</i> and operando methods to characterize phase changes in charged lithium nickel cobalt aluminum oxide cathode materials. <i>Journal Physics D: Applied Physics</i> , 2020, 53, 113002.	1.3	12
43	Synthesis of Mo ₄ VAIC ₄ MAX Phase and Two-Dimensional Mo ₄ VC ₄ MXene with Five Atomic Layers of Transition Metals. <i>ACS Nano</i> , 2020, 14, 204-217.	7.3	429
44	In Situ Investigation of Chemomechanical Effects in Thiophosphate Solid Electrolytes. <i>Matter</i> , 2020, 3, 2138-2159.	5.0	67
45	Impact of Hierarchical Nanoporous Architectures on Sodium Storage in Antimony-Based Sodium-Ion Battery Anodes. <i>ACS Applied Energy Materials</i> , 2020, 3, 11231-11241.	2.5	11
46	Role of Lithium Iodide Addition to Lithium Thiophosphate: Implications beyond Conductivity. <i>Chemistry of Materials</i> , 2020, 32, 7150-7158.	3.2	12
47	Investigation of Rh ⁺ titanate (ATiO ₃) interactions on high-surface-area perovskite thin films prepared by atomic layer deposition. <i>Journal of Materials Chemistry A</i> , 2020, 8, 16973-16984.	5.2	12
48	Atomic-scale phase separation induced clustering of solute atoms. <i>Nature Communications</i> , 2020, 11, 3934.	5.8	11
49	Understanding important features of deep learning models for segmentation of high-resolution transmission electron microscopy images. <i>Npj Computational Materials</i> , 2020, 6, .	3.5	96
50	Tailoring Electronic and Optical Properties of MXenes through Forming Solid Solutions. <i>Journal of the American Chemical Society</i> , 2020, 142, 19110-19118.	6.6	198
51	Giant Gate-Tunability of Complex Refractive Index in Semiconducting Carbon Nanotubes. <i>ACS Photonics</i> , 2020, 7, 2896-2905.	3.2	16
52	Electron Transport in Dye-Sensitized TiO ₂ Nanowire Arrays in Contact with Aqueous Electrolytes. <i>Journal of Physical Chemistry C</i> , 2020, 124, 22003-22010.	1.5	8
53	Zeolite Nanosheets Stabilize Catalyst Particles to Promote the Growth of Thermodynamically Unfavorable, Small-Diameter Carbon Nanotubes. <i>Small</i> , 2020, 16, e2002120.	5.2	7
54	Ferroelectric C-Axis Textured Aluminum Scandium Nitride Thin Films of 100 nm Thickness. , 2020, , .		18

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55	A Thermodynamic Investigation of Ni on Thin-Film Titanates (ATiO ₃). <i>Inorganics</i> , 2020, 8, 69.	1.2	7
56	Ferroelectric Switching in Sub-20 nm Aluminum Scandium Nitride Thin Films. <i>IEEE Electron Device Letters</i> , 2020, 41, 1774-1777.	2.2	55
57	Epitaxial and Strong Support Interactions between Pt and LaFeO ₃ Films Stabilize Pt Dispersion. <i>Journal of the American Chemical Society</i> , 2020, 142, 10373-10382.	6.6	58
58	Maximization of carbon nanotube yield by solid carbon-assisted dewetting of iron catalyst films. <i>Carbon</i> , 2020, 165, 251-258.	5.4	10
59	Direct visualization of out-of-equilibrium structural transformations in atomically thin chalcogenides. <i>Npj 2D Materials and Applications</i> , 2020, 4, .	3.9	31
60	Stabilization of a nanoporous NiCu dilute alloy catalyst for non-oxidative ethanol dehydrogenation. <i>Catalysis Science and Technology</i> , 2020, 10, 5207-5217.	2.1	17
61	Changes in Ni-NiO Equilibrium Due to LaFeO ₃ and the Effect on Dry Reforming of CH ₄ . <i>Applied Catalysis B: Environmental</i> , 2020, , 118798.	10.8	0
62	Low-Power Switching through Disorder and Carrier Localization in Bismuth-Doped Germanium Telluride Phase Change Memory Nanowires. <i>ACS Nano</i> , 2020, 14, 2162-2171.	7.3	13
63	Insights into the Promotion with Ru of Co/TiO ₂ Fischer-Tropsch Catalysts: An In Situ Spectroscopic Study. <i>ACS Catalysis</i> , 2020, 10, 6042-6057.	5.5	39
64	Decomposition of Hydrogen Peroxide Catalyzed by AuPd Nanocatalysts during Methane Oxidation to Methanol. <i>ACS Catalysis</i> , 2020, 10, 5115-5123.	5.5	25
65	Enhancing catalytic performance of dilute metal alloy nanomaterials. <i>Communications Chemistry</i> , 2020, 3, .	2.0	41
66	Environmental TEM Studies Reveal Catalyst/Support Registry on 2D Zeolites. <i>Microscopy and Microanalysis</i> , 2019, 25, 1458-1459.	0.2	1
67	Using In-Situ Methods to Characterize Phase Changes in Charged Lithium Nickel Cobalt Aluminum Oxide Cathode Materials. <i>Microscopy and Microanalysis</i> , 2019, 25, 2030-2031.	0.2	2
68	Operando Electrochemical TEM of Solid-State Energy Storage Materials Using a Probe-Based Biasing Holder. <i>Microscopy and Microanalysis</i> , 2019, 25, 2108-2109.	0.2	0
69	Development of a Method to Characterize Active Sites in Photocatalysis using <i>operando</i> Transmission Electron Microscopy. <i>Microscopy and Microanalysis</i> , 2019, 25, 1444-1445.	0.2	1
70	Expanded lithiation of titanium disulfide: Reaction kinetics of multi-step conversion reaction. <i>Nano Energy</i> , 2019, 63, 103882.	8.2	21
71	Patterning Si at the 1 nm Length Scale with Aberration-Corrected Electron-Beam Lithography: Tuning of Plasmonic Properties by Design. <i>Advanced Functional Materials</i> , 2019, 29, 1903429.	7.8	39
72	Tuning the Electrocatalytic Oxygen Reduction Reaction Activity of Pt-Co Nanocrystals by Cobalt Concentration with Atomic-Scale Understanding. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 26789-26797.	4.0	40

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73	â€œIntelligentâ€•Pt Catalysts Studied on High-Surface-Area CaTiO ₃ Films. ACS Catalysis, 2019, 9, 7318-7327.	5.5	39
74	Isolating the Roles of Hydrogen Exposure and Trace Carbon Contamination on the Formation of Active Catalyst Populations for Carbon Nanotube Growth. ACS Nano, 2019, 13, 8736-8748.	7.3	28
75	â€œIntelligentâ€•Pt Catalysts Based on Thin LaCoO ₃ Films Prepared by Atomic Layer Deposition. Inorganics, 2019, 7, 113.	1.2	16
76	Characterization and Modeling of Coarsening Mechanisms in Supported Nanoparticle Ensemble.. Microscopy and Microanalysis, 2019, 25, 1420-1421.	0.2	0
77	Evolution of steady-state material properties during catalysis: Oxidative coupling of methanol over nanoporous Ag _{0.03} Au _{0.97} . Journal of Catalysis, 2019, 380, 366-374.	3.1	24
78	Optimized High-Temperature In-Situ Transmission Electron Microscopy Double-Tilt Sample Heating Platform. Microscopy and Microanalysis, 2019, 25, 1540-1541.	0.2	0
79	Carbon-assisted catalyst pretreatment enables straightforward synthesis of high-density carbon nanotube forests. Carbon, 2019, 153, 196-205.	5.4	31
80	Phase evolution of conversion-type electrode for lithium ion batteries. Nature Communications, 2019, 10, 2224.	5.8	99
81	Quantification of Charge Transfer at the Interfaces of Oxide Thin Films. Journal of Physical Chemistry A, 2019, 123, 4632-4637.	1.1	5
82	Impact of Synthesis Method on Phase Transformations of Layered Lithium Vanadium Oxide upon Electrochemical (De)lithiation. Journal of the Electrochemical Society, 2019, 166, A771-A778.	1.3	10
83	The Influence of Surface Platinum Deposits on the Photocatalytic Activity of Anatase TiO ₂ Nanocrystals. Journal of Physical Chemistry C, 2019, 123, 10477-10486.	1.5	7
84	Cathodoluminescence as an effective probe of carrier transport and deep level defects in droop-mitigating InGaN/GaN quantum well heterostructures. Applied Physics Express, 2019, 12, 034003.	1.1	2
85	A Study of Support Effects for CH ₄ and CO Oxidation over Pd Catalysts on ALD-Modified Al ₂ O ₃ . Catalysis Letters, 2019, 149, 905-915.	1.4	30
86	1â€•nm Si Patterning: Patterning Si at the 1 nm Length Scale with Aberrationâ€•Corrected Electronâ€•Beam Lithography: Tuning of Plasmonic Properties by Design (Adv. Funct. Mater. 52/2019). Advanced Functional Materials, 2019, 29, 1970353.	7.8	2
87	Quantitative measurement of contact area and electron transport across platinum nanocontacts for scanning probe microscopy and electrical nanodevices. Nanotechnology, 2019, 30, 045705.	1.3	14
88	Size-dependent kinetics during non-equilibrium lithiation of nano-sized zinc ferrite. Nature Communications, 2019, 10, 93.	5.8	39
89	Order in one dimension. Nature Materials, 2019, 18, 4-6.	13.3	4
90	Surface Crystallization of Liquid Auâ€•Si and Its Impact on Catalysis. Advanced Materials, 2019, 31, 1806544.	11.1	23

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91	Synthesis and Characterization of CuFe ₂ O ₄ Nano/Submicron Wire-Carbon Nanotube Composites as Binder-free Anodes for Li-Ion Batteries. ACS Applied Materials & Interfaces, 2018, 10, 8770-8785.	4.0	42
92	Synthesis, Structural Characterization, and Growth Mechanism of Li _{1+x} V ₃ O ₈ Submicron Fibers for Lithium-Ion Batteries. Crystal Growth and Design, 2018, 18, 2055-2066.	1.4	13
93	In situ imaging of the soldering reactions in nanoscale Cu/Sn/Cu and Sn/Cu/Sn diffusion couples. Journal of Applied Physics, 2018, 123, 024302.	1.1	3
94	Growth of Nanoparticles with Desired Catalytic Functions by Controlled Doping-Segregation of Metal in Oxide. Chemistry of Materials, 2018, 30, 1585-1592.	3.2	11
95	Evolution and stabilization of subnanometric metal species in confined space by in situ TEM. Nature Communications, 2018, 9, 574.	5.8	140
96	Structural and Electrochemical Characteristics of Ca-Doped Flower-like Li ₄ Ti ₅ O ₁₂ Motifs as High-Rate Anode Materials for Lithium-Ion Batteries. Chemistry of Materials, 2018, 30, 671-684.	3.2	76
97	Two-Dimensional Holey Nanoarchitectures Created by Confined Self-Assembly of Nanoparticles via Block Copolymers: From Synthesis to Energy Storage Property. ACS Nano, 2018, 12, 820-828.	7.3	62
98	Capacity Fading Mechanism of the Commercial 18650 LiFePO ₄ -Based Lithium-Ion Batteries: An in Situ Time-Resolved High-Energy Synchrotron XRD Study. ACS Applied Materials & Interfaces, 2018, 10, 4622-4629.	4.0	40
99	Atomic-Scale Insights into the Oxidation of Aluminum. ACS Applied Materials & Interfaces, 2018, 10, 2230-2235.	4.0	95
100	Identifying Dynamic Structural Changes of Active Sites in Pt-Ni Bimetallic Catalysts Using Multimodal Approaches. ACS Catalysis, 2018, 8, 4120-4131.	5.5	54
101	Molecular structure and sour gas surface chemistry of supported K ₂ O/WO ₃ /Al ₂ O ₃ catalysts. Applied Catalysis B: Environmental, 2018, 232, 146-154.	10.8	19
102	Dislocation nucleation facilitated by atomic segregation. Nature Materials, 2018, 17, 56-63.	13.3	99
103	In-situ Atomic-Resolution Observations of Oxide-Reduction Induced Formation of Nano-Holes in Cu ₂ O Thin Films. Microscopy and Microanalysis, 2018, 24, 1816-1817.	0.2	0
104	Probing enhanced lithium-ion transport kinetics in 2D holey nanoarchitected electrodes. Nano Futures, 2018, 2, 035008.	1.0	15
105	Revisiting Conversion Reaction Mechanisms in Lithium Batteries: Lithiation-Driven Topotactic Transformation in Fe ₂ . Journal of the American Chemical Society, 2018, 140, 17915-17922.	6.6	41
106	Carbon Nanotubes and Related Nanomaterials: Critical Advances and Challenges for Synthesis toward Mainstream Commercial Applications. ACS Nano, 2018, 12, 11756-11784.	7.3	388
107	Single-Digit Nanometer Electron-Beam Lithography with an Aberration-Corrected Scanning Transmission Electron Microscope. Journal of Visualized Experiments, 2018, , .	0.2	4
108	Segregation induced order-disorder transition in Cu(Au) surface alloys. Acta Materialia, 2018, 154, 220-227.	3.8	11

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109	Highly active subnanometer Rh clusters derived from Rh-doped SrTiO ₃ for CO ₂ reduction. Applied Catalysis B: Environmental, 2018, 237, 1003-1011.	10.8	67
110	Improved Coking Resistance of α -Ni Catalysts Prepared by Atomic Layer Deposition. ACS Catalysis, 2018, 8, 7679-7687.	5.5	59
111	Towards Real Time Quantitative Analysis of Supported Nanoparticle Ensemble Evolution Investigated by Environmental TEM. Microscopy and Microanalysis, 2018, 24, 540-541.	0.2	2
112	Using Operando Characterization, Data Analytics, and Artificial Intelligence to Understand Mechanistic Links between Processing and Structure. Microscopy and Microanalysis, 2018, 24, 258-259.	0.2	0
113	Achieving High Cycling Rates via In Situ Generation of Active Nanocomposite Metal Anodes. ACS Applied Energy Materials, 2018, 1, 4651-4661.	2.5	19
114	Anatomy of a Visible Light Activated Photocatalyst for Water Splitting. ACS Catalysis, 2018, 8, 6650-6658.	5.5	24
115	<i>In situ</i> atomic-scale observation of inhomogeneous oxide reduction. Chemical Communications, 2018, 54, 7342-7345.	2.2	8
116	Atomic Insight into the Layered/Spinel Phase Transformation in Charged LiNi _{0.80} Co _{0.15} Al _{0.05} O ₂ Cathode Particles. Journal of Physical Chemistry C, 2017, 121, 1421-1430.	1.5	52
117	Plasmonic Titanium Nitride Nanostructures via Nitridation of Nanopatterned Titanium Dioxide. Advanced Optical Materials, 2017, 5, 1600717.	3.6	42
118	Length-dependent melting behavior of Sn nanowires. Journal of Materials Research, 2017, 32, 1194-1202.	1.2	9
119	Investigation of Structural Evolution of Li _{1.1} V ₃ O ₈ by <i>In Situ</i> X-ray Diffraction and Density Functional Theory Calculations. Chemistry of Materials, 2017, 29, 2364-2373.	3.2	40
120	Importance of Low Dimensional CeO _x Nanostructures in Pt/CeO _x /TiO ₂ Catalysts for the Water-Gas Shift Reaction. Journal of Physical Chemistry C, 2017, 121, 6635-6642.	1.5	17
121	Correlating Preparative Approaches with Electrochemical Performance of Fe ₃ O ₄ -MWNT Composites Used as Anodes in Li-Ion Batteries. ECS Journal of Solid State Science and Technology, 2017, 6, M3122-M3131.	0.9	13
122	Plasmonics: Plasmonic Titanium Nitride Nanostructures via Nitridation of Nanopatterned Titanium Dioxide (Advanced Optical Materials 7/2017). Advanced Optical Materials, 2017, 5, .	3.6	0
123	Aberration-Corrected Electron Beam Lithography at the One Nanometer Length Scale. Nano Letters, 2017, 17, 4562-4567.	4.5	80
124	Strain Coupling of Conversion-type Fe ₃ O ₄ Thin Films for Lithium Ion Batteries. Angewandte Chemie - International Edition, 2017, 56, 7813-7816.	7.2	59
125	Strain Coupling of Conversion-type Fe ₃ O ₄ Thin Films for Lithium Ion Batteries. Angewandte Chemie, 2017, 129, 7921-7924.	1.6	2
126	Visualization of structural evolution and phase distribution of a lithium vanadium oxide (Li _{1.1} V ₃ O ₈) electrode via an operando and in situ energy dispersive X-ray diffraction technique. Physical Chemistry Chemical Physics, 2017, 19, 14160-14169.	1.3	25

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127	Conductive Polymers: A Tunable 3D Nanostructured Conductive Gel Framework Electrode for High-Performance Lithium Ion Batteries (Adv. Mater. 22/2017). Advanced Materials, 2017, 29, .	11.1	1
128	Lithium Vanadium Oxide ($\text{Li}_{1.1}\text{V}_3\text{O}_8$) Coated with Amorphous Lithium Phosphorous Oxynitride (LiPON): Role of Material Morphology and Interfacial Structure on Resulting Electrochemistry. Journal of the Electrochemical Society, 2017, 164, A1503-A1513.	1.3	9
129	Intergranular Cracking as a Major Cause of Long-Term Capacity Fading of Layered Cathodes. Nano Letters, 2017, 17, 3452-3457.	4.5	361
130	Energy Dispersive X-ray Diffraction (EDXRD) of $\text{Li}_{1.1}\text{V}_3\text{O}_8$ Electrochemical Cell. MRS Advances, 2017, 2, 401-406.	0.5	8
131	A Tunable 3D Nanostructured Conductive Gel Framework Electrode for High-Performance Lithium Ion Batteries. Advanced Materials, 2017, 29, 1603922.	11.1	175
132	Dynamic restructuring drives catalytic activity on nanoporous gold-silver alloy catalysts. Nature Materials, 2017, 16, 558-564.	13.3	243
133	Interface dynamics in one-dimensional nanoscale Cu/Sn couples. Acta Materialia, 2017, 125, 136-144.	3.8	24
134	Structural Change of a Cu/ZnO Catalyst under Methanol Observed by ETEM. Microscopy and Microanalysis, 2017, 23, 2100-2101.	0.2	2
135	In-Situ TEM Study of Phase Evolution in Individual Battery Materials. Microscopy and Microanalysis, 2017, 23, 2008-2009.	0.2	0
136	The Intermediate State of the Layered $\text{LiNi}_{0.80}\text{Co}_{0.15}\text{Al}_{0.05}\text{O}_2$ Cathode. Microscopy and Microanalysis, 2017, 23, 2014-2015.	0.2	1
137	In situ atomic-scale imaging of the metal/oxide interfacial transformation. Nature Communications, 2017, 8, 307.	5.8	79
138	Atomic level cleaning of poly-methyl-methacrylate residues from the graphene surface using radiolized water at high temperatures. Applied Physics Letters, 2017, 111, .	1.5	13
139	A Microporous and Naturally Nanostructured Thermoelectric Metal-Organic Framework with Ultralow Thermal Conductivity. Joule, 2017, 1, 168-177.	11.7	159
140	Signature of Metallic Behavior in the Metal-Organic Frameworks $\text{M}_3(\text{hexaiminobenzene})_2$ (M = Ni, Cu). Journal of the American Chemical Society, 2017, 139, 13608-13611.	6.6	324
141	Enhanced Carbon Dioxide Electroreduction to Carbon Monoxide over Defect-Rich Plasma-Activated Silver Catalysts. Angewandte Chemie, 2017, 129, 11552-11556.	1.6	58
142	Enhanced Carbon Dioxide Electroreduction to Carbon Monoxide over Defect-Rich Plasma-Activated Silver Catalysts. Angewandte Chemie - International Edition, 2017, 56, 11394-11398.	7.2	180
143	Multimodal Study of the Speciations and Activities of Supported Pd Catalysts During the Hydrogenation of Ethylene. Journal of Physical Chemistry C, 2017, 121, 18962-18972.	1.5	24
144	Atomically Visualizing Elemental Segregation-Induced Surface Alloying and Restructuring. Journal of Physical Chemistry Letters, 2017, 8, 6035-6040.	2.1	10

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145	Visualization of Phase Evolution of Ternary Spinel Transition Metal Oxides (CuFe ₂ O ₄) during Lithiation. <i>Microscopy and Microanalysis</i> , 2017, 23, 2022-2023.	0.2	1
146	Experimental Study of the Detection Limit in Dual-Gate Biosensors Using Ultrathin Silicon Transistors. <i>ACS Nano</i> , 2017, 11, 7142-7147.	7.3	28
147	Making Li-metal electrodes rechargeable by controlling the dendrite growth direction. <i>Nature Energy</i> , 2017, 2, .	19.8	355
148	Nanoscale structural oscillations in perovskite oxides induced by oxygen evolution. <i>Nature Materials</i> , 2017, 16, 121-126.	13.3	149
149	Operando and multimodal studies of speciation and activity of Pt catalysts during the hydrogenation of ethylene. <i>Microscopy and Microanalysis</i> , 2017, 23, 892-893.	0.2	0
150	The Stability of Sapphire in the Presence of Water: an Environmental TEM Study. <i>Microscopy and Microanalysis</i> , 2017, 23, 964-965.	0.2	1
151	Automated image acquisition and analysis of beam sensitive samples. <i>Microscopy and Microanalysis</i> , 2017, 23, 1788-1789.	0.2	0
152	Glucose sensing using dual-gated BioFETs with 5nm-thick silicon body. , 2017, , .		0
153	Near real time ETEM streaming video analysis. , 2017, , .		0
154	Investigating load-dependent conduction through platinum nanocontacts using in situ electromechanical testing inside a transmission electron microscope. , 2017, , .		1
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