Thomas Burdyny

List of Publications by Year
in descending order

520 papers	98,316 citations	209 / 147 h-index	265 / 298 g-index
537 all docs	537 docs citations	537 times ranked	47435 citing authors

#	Article	IF	Citations
1	Low trap-state density and long carrier diffusion in organolead trihalide perovskite single crystals. Science, 2015, 347, 519-522.	6.0	4,156
2	Perovskite light-emitting diodes with external quantum efficiency exceeding 20 per cent. Nature, 2018, 562, 245-248.	13.7	2,589
3	Efficient and stable solution-processed planar perovskite solar cells via contact passivation. Science, 2017, 355, 722-726.	6.0	2,019
4	Homogeneously dispersed multimetal oxygen-evolving catalysts. Science, 2016, 352, 333-337.	6.0	1,948
5	Perovskite energy funnels for efficient light-emitting diodes. Nature Nanotechnology, 2016, 11, 872-877.	15.6	1,868
6	Solution-processed PbS quantum dot infrared photodetectors and photovoltaics. Nature Materials, 2005, 4, 138-142.	13.3	1,793
7	CO ₂ electroreduction to ethylene via hydroxide-mediated copper catalysis at an abrupt interface. Science, 2018, 360, 783-787.	6.0	1,638
8	What would it take for renewably powered electrosynthesis to displace petrochemical processes?. Science, 2019, 364, .	6.0	1,505
9	Efficient and stable emission of warm-white light from lead-free halide double perovskites. Nature, 2018, 563, 541-545.	13.7	1,451
10	Enhanced electrocatalytic CO2 reduction via field-induced reagent concentration. Nature, 2016, 537, 382-386.	13.7	1,429
11	Colloidal-quantum-dot photovoltaics using atomic-ligand passivation. Nature Materials, 2011, 10, 765-771.	13.3	1,375
12	Perovskite photonic sources. Nature Photonics, 2016, 10, 295-302.	15.6	1,369
13	Challenges for commercializing perovskite solar cells. Science, 2018, 361, .	6.0	1,327
14	Ligand-Stabilized Reduced-Dimensionality Perovskites. Journal of the American Chemical Society, 2016, 138, 2649-2655.	6.6	1,157
15	Hybrid passivated colloidal quantum dot solids. Nature Nanotechnology, 2012, 7, 577-582.	15.6	1,100
16	Building devices from colloidal quantum dots. Science, 2016, 353, .	6.0	996
17	Solution-processed semiconductors for next-generation photodetectors. Nature Reviews Materials, 2017, 2, .	23.3	992
18	Colloidal Quantum Dot Solar Cells. Chemical Reviews, 2015, 115, 12732-12763.	23.0	987

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19	What Should We Make with CO2 and How Can We Make It?. Joule, 2018, 2, 825-832.	11.7	975
20	Perovskiteâ€“fullerene hybrid materials suppress hysteresis in planar diodes. Nature Communications, 2015, 6, 7081.	5.8	948
21	Highly Efficient Perovskiteâ€Quantumâ€Dot Lightâ€Emitting Diodes by Surface Engineering. Advanced Materials, 2016, 28, 8718-8725.	11.1	917
22	Managing grains and interfaces via ligand anchoring enables 22.3%-efficiency inverted perovskite solar cells. Nature Energy, 2020, 5, 131-140.	19.8	894
23	CO ₂ electrolysis to multicarbon products at activities greater than 1 A cm ^{âˆ’2}. Science, 2020, 367, 661-666.	6.0	860
24	Designing materials for electrochemical carbon dioxide recycling. Nature Catalysis, 2019, 2, 648-658.	16.1	838
25	Accelerated discovery of CO2 electrocatalysts using active machine learning. Nature, 2020, 581, 178-183.	13.7	807
26	Thin-film Sb2Se3 photovoltaics with oriented one-dimensional ribbons and benign grain boundaries. Nature Photonics, 2015, 9, 409-415.	15.6	781
27	Dopant-induced electron localization drives CO2 reduction to C2 hydrocarbons. Nature Chemistry, 2018, 10, 974-980.	6.6	781
28	Electrochemical CO₂ Reduction into Chemical Feedstocks: From Mechanistic Electrocatalysis Models to System Design. Advanced Materials, 2019, 31, e1807166.	11.1	769
29	Catalyst electro-redeposition controls morphology and oxidation state for selective carbon dioxide reduction. Nature Catalysis, 2018, 1, 103-110.	16.1	737
30	Monolithic all-perovskite tandem solar cells with 24.8% efficiency exploiting comproportionation to suppress Sn(ii) oxidation in precursor ink. Nature Energy, 2019, 4, 864-873.	19.8	736
31	Highly Oriented Low-Dimensional Tin Halide Perovskites with Enhanced Stability and Photovoltaic Performance. Journal of the American Chemical Society, 2017, 139, 6693-6699.	6.6	723
32	CO₂ reduction on gas-diffusion electrodes and why catalytic performance must be assessed at commercially-relevant conditions. Energy and Environmental Science, 2019, 12, 1442-1453.	15.6	692
33	Molecular tuning of CO2-to-ethylene conversion. Nature, 2020, 577, 509-513.	13.7	682
34	Materials Processing Routes to Trap-Free Halide Perovskites. Nano Letters, 2014, 14, 6281-6286.	4.5	671
35	Ultra-bright and highly efficient inorganic based perovskite light-emitting diodes. Nature Communications, 2017, 8, 15640.	5.8	669
36	Perovskites for Next-Generation Optical Sources. Chemical Reviews, 2019, 119, 7444-7477.	23.0	640

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37	Enhanced Nitrate-to-Ammonia Activity on Copperâ€"Nickel Alloys via Tuning of Intermediate Adsorption. Journal of the American Chemical Society, 2020, 142, 5702-5708.	6.6	638
38	Planar-integrated single-crystalline perovskite photodetectors. Nature Communications, 2015, 6, 8724.	5.8	617
39	Semiconductor quantum dots: Technological progress and future challenges. Science, 2021, 373, .	6.0	600
40	Colloidal quantum dot solar cells. Nature Photonics, 2012, 6, 133-135.	15.6	571
41	Hybrid organicâ€"inorganic inks flatten the energy landscape in colloidal quantum dotÂsolids. Nature Materials, 2017, 16, 258-263.	13.3	563
42	Suppression of atomic vacancies via incorporation of isovalent small ions to increase the stability of halide perovskite solar cells in ambient air. Nature Energy, 2018, 3, 648-654.	19.8	552
43	All-perovskite tandem solar cells with improved grain surface passivation. Nature, 2022, 603, 73-78.	13.7	544
44	Bipolar-shell resurfacing for blue LEDs based on strongly confined perovskite quantum dots. Nature Nanotechnology, 2020, 15, 668-674.	15.6	541
45	CO ₂ electrolysis to multicarbon products in strong acid. Science, 2021, 372, 1074-1078.	6.0	541
46	Steering post-Câ€"C coupling selectivity enables high efficiency electroreduction of carbon dioxide to multi-carbon alcohols. Nature Catalysis, 2018, 1, 421-428.	16.1	537
47	Color-stable highly luminescent sky-blue perovskite light-emitting diodes. Nature Communications, 2018, 9, 3541.	5.8	536
48	Air-stable n-type colloidal quantum dot solids. Nature Materials, 2014, 13, 822-828.	13.3	529
49	Efficient tandem solar cells with solution-processed perovskite on textured crystalline silicon. Science, 2020, 367, 1135-1140.	6.0	525
50	Infrared Quantum Dots. Advanced Materials, 2005, 17, 515-522.	11.1	510
51	All-perovskite tandem solar cells with 24.2% certified efficiency and area over 1â€‰cm2 using surface-anchoring zwitterionic antioxidant. Nature Energy, 2020, 5, 870-880.	19.8	497
52	Efficient Luminescence from Perovskite Quantum Dot Solids. ACS Applied Materials & Interfaces, 2015, 7, 25007-25013.	4.0	481
53	Theory-driven design of high-valence metal sites for water oxidation confirmed using in situ soft X-ray absorption. Nature Chemistry, 2018, 10, 149-154.	6.6	476
54	Electronâ€"phonon interaction in efficient perovskite blue emitters. Nature Materials, 2018, 17, 550-556.	13.3	472

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55	Multi-site electrocatalysts for hydrogen evolution in neutral media by destabilization of water molecules. Nature Energy, 2019, 4, 107-114.	19.8	470
56	Quantum-dot-in-perovskite solids. Nature, 2015, 523, 324-328.	13.7	468
57	Chiral-perovskite optoelectronics. Nature Reviews Materials, 2020, 5, 423-439.	23.3	445
58	Thermal unequilibrium of strained black CsPbI ₃ thin films. Science, 2019, 365, 679-684.	6.0	444
59	Perovskites for Light Emission. Advanced Materials, 2018, 30, e1801996.	11.1	417
60	Molecular enhancement of heterogeneous CO2 reduction. Nature Materials, 2020, 19, 266-276.	13.3	416
61	Sensitive solution-processed visible-wavelength photodetectors. Nature Photonics, 2007, 1, 531-534.	15.6	411
62	Tailoring the Energy Landscape in Quasi-2D Halide Perovskites Enables Efficient Green-Light Emission. Nano Letters, 2017, 17, 3701-3709.	4.5	409
63	Sulfur-Modulated Tin Sites Enable Highly Selective Electrochemical Reduction of CO2 to Formate. Joule, 2017, 1, 794-805.	11.7	390
64	High-valence metals improve oxygen evolution reaction performance by modulating 3d metal oxidation cycle energetics. Nature Catalysis, 2020, 3, 985-992.	16.1	390
65	Cooperative CO2-to-ethanol conversion via enriched intermediates at moleculeâ€“metal catalyst interfaces. Nature Catalysis, 2020, 3, 75-82.	16.1	390
66	Spin control in reduced-dimensional chiral perovskites. Nature Photonics, 2018, 12, 528-533.	15.6	371
67	Tandem colloidal quantum dot solar cells employing a graded recombination layer. Nature Photonics, 2011, 5, 480-484.	15.6	367
68	Efficient electrically powered CO2-to-ethanol via suppression of deoxygenation. Nature Energy, 2020, 5, 478-486.	19.8	363
69	Highly efficient quantum dot near-infrared light-emitting diodes. Nature Photonics, 2016, 10, 253-257.	15.6	361
70	Distribution control enables efficient reduced-dimensional perovskite LEDs. Nature, 2021, 599, 594-598.	13.7	358
71	Size-tunable infrared (1000â€“1600 nm) electroluminescence from PbS quantum-dot nanocrystals in a semiconducting polymer. Applied Physics Letters, 2003, 82, 2895-2897.	1.5	356
72	Copper nanocavities confine intermediates for efficient electrosynthesis of C3 alcohol fuels from carbon monoxide. Nature Catalysis, 2018, 1, 946-951.	16.1	354

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73	Compositional and orientational control in metal halide perovskites of reduced dimensionality. Nature Materials, 2018, 17, 900-907.	13.3	351
74	Continuous Carbon Dioxide Electroreduction to Concentrated Multi-carbon Products Using a Membrane Electrode Assembly. Joule, 2019, 3, 2777-2791.	11.7	350
75	Regulating strain in perovskite thin films through charge-transport layers. Nature Communications, 2020, 11, 1514.	5.8	346
76	Amineâ€Free Synthesis of Cesium Lead Halide Perovskite Quantum Dots for Efficient Lightâ€Emitting Diodes. Advanced Functional Materials, 2016, 26, 8757-8763.	7.8	344
77	Binding Site Diversity Promotes CO₂ Electroreduction to Ethanol. Journal of the American Chemical Society, 2019, 141, 8584-8591.	6.6	338
78	Heterovalent Dopant Incorporation for Bandgap and Type Engineering of Perovskite Crystals. Journal of Physical Chemistry Letters, 2016, 7, 295-301.	2.1	332
79	Facet-Dependent Selectivity of Cu Catalysts in Electrochemical CO₂ Reduction at Commercially Viable Current Densities. ACS Catalysis, 2020, 10, 4854-4862.	5.5	331
80	Infrared photovoltaics made by solution processing. Nature Photonics, 2009, 3, 325-331.	15.6	326
81	Metalâ€“Organic Frameworks Mediate Cu Coordination for Selective CO₂ Electroreduction. Journal of the American Chemical Society, 2018, 140, 11378-11386.	6.6	326
82	Catalyst synthesis under CO2 electroreduction favours faceting and promotes renewable fuels electrosynthesis. Nature Catalysis, 2020, 3, 98-106.	16.1	325
83	Continuous-wave lasing in colloidal quantum dot solids enabled by facet-selective epitaxy. Nature, 2017, 544, 75-79.	13.7	319
84	10.6% Certified Colloidal Quantum Dot Solar Cells via Solvent-Polarity-Engineered Halide Passivation. Nano Letters, 2016, 16, 4630-4634.	4.5	312
85	Passivation Using Molecular Halides Increases Quantum Dot Solar Cell Performance. Advanced Materials, 2016, 28, 299-304.	11.1	312
86	Highly Emissive Green Perovskite Nanocrystals in a Solid State Crystalline Matrix. Advanced Materials, 2017, 29, 1605945.	11.1	309
87	Perovskite seeding growth of formamidinium-lead-iodide-based perovskites for efficient and stable solar cells. Nature Communications, 2018, 9, 1607.	5.8	309
88	Halide-Dependent Electronic Structure of Organolead Perovskite Materials. Chemistry of Materials, 2015, 27, 4405-4412.	3.2	305
89	Bright colloidal quantum dot light-emitting diodes enabled by efficient chlorination. Nature Photonics, 2018, 12, 159-164.	15.6	303
90	Bright high-colour-purity deep-blue carbon dot light-emitting diodes via efficient edge amination. Nature Photonics, 2020, 14, 171-176.	15.6	303

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91	Colloidal quantum dot ligand engineering for high performance solar cells. Energy and Environmental Science, 2016, 9, 1130-1143.	15.6	297
92	Sensitive, Fast, and Stable Perovskite Photodetectors Exploiting Interface Engineering. ACS Photonics, 2015, 2, 1117-1123.	3.2	292
93	Synthetic Control over Quantum Well Width Distribution and Carrier Migration in Low-Dimensional Perovskite Photovoltaics. Journal of the American Chemical Society, 2018, 140, 2890-2896.	6.6	288
94	One-Step Synthesis of SnI₂Â·(DMSO)_{<i>x</i>} Adducts for High-Performance Tin Perovskite Solar Cells. Journal of the American Chemical Society, 2021, 143, 10970-10976.	6.6	280
95	Copper-on-nitride enhances the stable electrosynthesis of multi-carbon products from CO2. Nature Communications, 2018, 9, 3828.	5.8	279
96	Rational Design of Efficient Palladium Catalysts for Electroreduction of Carbon Dioxide to Formate. ACS Catalysis, 2016, 6, 8115-8120.	5.5	277
97	Charge-extraction strategies for colloidal quantum dot photovoltaics. Nature Materials, 2014, 13, 233-240.	13.3	273
98	Tunable Cu Enrichment Enables Designer Syngas Electrosynthesis from CO₂. Journal of the American Chemical Society, 2017, 139, 9359-9363.	6.6	260
99	Colloidal quantum dot solids for solution-processed solar cells. Nature Energy, 2016, 1, .	19.8	255
100	Two-Photon Absorption in Organometallic Bromide Perovskites. ACS Nano, 2015, 9, 9340-9346.	7.3	254
101	2D matrix engineering for homogeneous quantum dot coupling in photovoltaic solids. Nature Nanotechnology, 2018, 13, 456-462.	15.6	252
102	Photovoltaic concepts inspired by coherence effects in photosynthetic systems. Nature Materials, 2017, 16, 35-44.	13.3	243
103	Bifunctional Surface Engineering on SnO₂ Reduces Energy Loss in Perovskite Solar Cells. ACS Energy Letters, 2020, 5, 2796-2801.	8.8	239
104	Dipolar cations confer defect tolerance in wide-bandgap metal halide perovskites. Nature Communications, 2018, 9, 3100.	5.8	237
105	Gas diffusion electrodes, reactor designs and key metrics of low-temperature CO2 electrolysers. Nature Energy, 2022, 7, 130-143.	19.8	237
106	An electrochemical clamp assay for direct, rapid analysis of circulating nucleic acids in serum. Nature Chemistry, 2015, 7, 569-575.	6.6	234
107	Fast and Sensitive Solutionâ€Processed Visibleâ€Blind Perovskite UV Photodetectors. Advanced Materials, 2016, 28, 7264-7268.	11.1	234
108	Quantum-size-tuned heterostructures enable efficient and stable inverted perovskite solar cells. Nature Photonics, 2022, 16, 352-358.	15.6	233

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109	High Rate, Selective, and Stable Electroreduction of CO₂ to CO in Basic and Neutral Media. ACS Energy Letters, 2018, 3, 2835-2840.	8.8	230
110	Role of the Carbon-Based Gas Diffusion Layer on Flooding in a Gas Diffusion Electrode Cell for Electrochemical CO₂ Reduction. ACS Energy Letters, 2021, 6, 33-40.	8.8	221
111	Engineering colloidal quantum dot solids within and beyond the mobility-invariant regime. Nature Communications, 2014, 5, 3803.	5.8	214
112	Constraining CO coverage on copper promotes high-efficiency ethylene electroproduction. Nature Catalysis, 2019, 2, 1124-1131.	16.1	214
113	Combined high alkalinity and pressurization enable efficient CO₂ electroreduction to CO. Energy and Environmental Science, 2018, 11, 2531-2539.	15.6	214
114	Allâ€Inorganic Quantumâ€Dot LEDs Based on a Phaseâ€Stabilized Î±â€CsPbI₃ Perovskite. Angewandte Chemie - International Edition, 2021, 60, 16164-16170.	7.2	210
115	Designing anion exchange membranes for CO2 electrolysers. Nature Energy, 2021, 6, 339-348.	19.8	209
116	Lattice anchoring stabilizes solution-processed semiconductors. Nature, 2019, 570, 96-101.	13.7	208
117	Chlorine Vacancy Passivation in Mixed Halide Perovskite Quantum Dots by Organic Pseudohalides Enables Efficient Rec. 2020 Blue Light-Emitting Diodes. ACS Energy Letters, 2020, 5, 793-798.	8.8	208
118	Photovoltage field-effect transistors. Nature, 2017, 542, 324-327.	13.7	204
119	Stabilizing Highly Active Ru Sites by Suppressing Lattice Oxygen Participation in Acidic Water Oxidation. Journal of the American Chemical Society, 2021, 143, 6482-6490.	6.6	204
120	Pure Cubicâ€Phase Hybrid Iodobismuthates AgBi₂I₇ for Thinâ€Film Photovoltaics. Angewandte Chemie - International Edition, 2016, 55, 9586-9590.	7.2	201
121	Hydroxide promotes carbon dioxide electroreduction to ethanol on copper via tuning of adsorbed hydrogen. Nature Communications, 2019, 10, 5814.	5.8	201
122	Photon management for augmented photosynthesis. Nature Communications, 2016, 7, 12699.	5.8	200
123	A Surface Reconstruction Route to High Productivity and Selectivity in CO₂ Electroreduction toward C₂₊ Hydrocarbons. Advanced Materials, 2018, 30, e1804867.	11.1	200
124	2D Metal Oxyhalideâ€Derived Catalysts for Efficient CO₂ Electroreduction. Advanced Materials, 2018, 30, e1802858.	11.1	200
125	Highly Efficient Visible Colloidal Lead-Halide Perovskite Nanocrystal Light-Emitting Diodes. Nano Letters, 2018, 18, 3157-3164.	4.5	199
126	High-Efficiency Colloidal Quantum Dot Photovoltaics via Robust Self-Assembled Monolayers. Nano Letters, 2015, 15, 7691-7696.	4.5	198

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127	Tracking the dynamics of circulating tumour cell phenotypes using nanoparticle-mediated magnetic ranking. Nature Nanotechnology, 2017, 12, 274-281.	15.6	198
128	High carbon utilization in CO2 reduction to multi-carbon products in acidic media. Nature Catalysis, 2022, 5, 564-570.	16.1	197
129	Chloride-mediated selective electrosynthesis of ethylene and propylene oxides at high current density. Science, 2020, 368, 1228-1233.	6.0	196
130	Colloidal quantum dot electronics. Nature Electronics, 2021, 4, 548-558.	13.1	192
131	Efficient Biexciton Interaction in Perovskite Quantum Dots Under Weak and Strong Confinement. ACS Nano, 2016, 10, 8603-8609.	7.3	190
132	Efficient electrocatalytic conversion of carbon monoxide to propanol using fragmented copper. Nature Catalysis, 2019, 2, 251-258.	16.1	188
133	The Inâ€Gap Electronic State Spectrum of Methylammonium Lead Iodide Singleâ€Crystal Perovskites. Advanced Materials, 2016, 28, 3406-3410.	11.1	187
134	Profiling circulating tumour cells and other biomarkers of invasive cancers. Nature Biomedical Engineering, 2018, 2, 72-84.	11.6	187
135	Cascade surface modification of colloidal quantum dot inks enables efficient bulk homojunction photovoltaics. Nature Communications, 2020, 11, 103.	5.8	181
136	Enhanced optical path and electron diffusion length enable high-efficiency perovskite tandems. Nature Communications, 2020, 11, 1257.	5.8	180
137	Measuring Charge Carrier Diffusion in Coupled Colloidal Quantum Dot Solids. ACS Nano, 2013, 7, 5282-5290.	7.3	178
138	Colloidal Quantum Dot Photovoltaics Enhanced by Perovskite Shelling. Nano Letters, 2015, 15, 7539-7543.	4.5	173
139	Graphdiyne: An Efficient Hole Transporter for Stable Highâ€Performance Colloidal Quantum Dot Solar Cells. Advanced Functional Materials, 2016, 26, 5284-5289.	7.8	172
140	Efficient bifacial monolithic perovskite/silicon tandem solar cells via bandgap engineering. Nature Energy, 2021, 6, 167-175.	19.8	164
141	Reducing Defects in Halide Perovskite Nanocrystals for Light-Emitting Applications. Journal of Physical Chemistry Letters, 2019, 10, 2629-2640.	2.1	162
142	Can sustainable ammonia synthesis pathways compete with fossil-fuel based Haberâ€“Bosch processes?. Energy and Environmental Science, 2021, 14, 2535-2548.	15.6	162
143	Structural, optical, and electronic studies of wide-bandgap lead halide perovskites. Journal of Materials Chemistry C, 2015, 3, 8839-8843.	2.7	161
144	Self-Cleaning CO₂ Reduction Systems: Unsteady Electrochemical Forcing Enables Stability. ACS Energy Letters, 2021, 6, 809-815.	8.8	159

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145	High-Density Nanosharp Microstructures Enable Efficient CO₂ Electroreduction. Nano Letters, 2016, 16, 7224-7228.	4.5	158
146	Introductory Guide to Assembling and Operating Gas Diffusion Electrodes for Electrochemical CO₂ Reduction. ACS Energy Letters, 2019, 4, 639-643.	8.8	158
147	Cascade CO2 electroreduction enables efficient carbonate-free production of ethylene. Joule, 2021, 5, 706-719.	11.7	158
148	Detection of SARS-CoV-2 Viral Particles Using Direct, Reagent-Free Electrochemical Sensing. Journal of the American Chemical Society, 2021, 143, 1722-1727.	6.6	156
149	Single Pass CO₂ Conversion Exceeding 85% in the Electrosynthesis of Multicarbon Products via Local CO₂ Regeneration. ACS Energy Letters, 2021, 6, 2952-2959.	8.8	155
150	Efficient Methane Electrosynthesis Enabled by Tuning Local CO₂ Availability. Journal of the American Chemical Society, 2020, 142, 3525-3531.	6.6	154
151	Copper adparticle enabled selective electrosynthesis of n-propanol. Nature Communications, 2018, 9, 4614.	5.8	153
152	Engineering of CH₃NH₃PbI₃ Perovskite Crystals by Alloying Large Organic Cations for Enhanced Thermal Stability and Transport Properties. Angewandte Chemie - International Edition, 2016, 55, 10686-10690.	7.2	152
153	Hybrid membrane/cryogenic separation of oxygen from air for use in the oxy-fuel process. Energy, 2010, 35, 1884-1897.	4.5	150
154	Mixed-quantum-dot solar cells. Nature Communications, 2017, 8, 1325.	5.8	148
155	Combining Efficiency and Stability in Mixed Tinâ€"Lead Perovskite Solar Cells by Capping Grains with an Ultrathin 2D Layer. Advanced Materials, 2020, 32, e1907058.	11.1	148
156	Edge stabilization in reduced-dimensional perovskites. Nature Communications, 2020, 11, 170.	5.8	147
157	High Color Purity Leadâ€Free Perovskite Lightâ€Emitting Diodes via Sn Stabilization. Advanced Science, 2020, 7, 1903213.	5.6	146
158	Photoconductivity from PbS-nanocrystalâˆ•semiconducting polymer composites for solution-processible, quantum-size tunableinfrared photodetectors. Applied Physics Letters, 2004, 85, 2089-2091.	1.5	145
159	Stable, active CO2 reduction to formate via redox-modulated stabilization of active sites. Nature Communications, 2021, 12, 5223.	5.8	145
160	Interrogating Circulating Microsomes and Exosomes Using Metal Nanoparticles. Small, 2016, 12, 727-732.	5.2	144
161	Hydronium-Induced Switching between CO₂ Electroreduction Pathways. Journal of the American Chemical Society, 2018, 140, 3833-3837.	6.6	144
162	In Situ Backâ€Contact Passivation Improves Photovoltage and Fill Factor in Perovskite Solar Cells. Advanced Materials, 2019, 31, e1807435.	11.1	143

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163	Monolayer Perovskite Bridges Enable Strong Quantum Dot Coupling for Efficient Solar Cells. Joule, 2020, 4, 1542-1556.	11.7	143
164	The Electrical and Optical Properties of Organometal Halide Perovskites Relevant to Optoelectronic Performance. Advanced Materials, 2018, 30, 1700764.	11.1	141
165	CO₂ Electroreduction from Carbonate Electrolyte. ACS Energy Letters, 2019, 4, 1427-1431.	8.8	141
166	Chemically Addressable Perovskite Nanocrystals for Lightâ€Emitting Applications. Advanced Materials, 2017, 29, 1701153.	11.1	139
167	Pathways to Industrial-Scale Fuel Out of Thin Air from CO2 Electrolysis. Joule, 2019, 3, 1822-1834.	11.7	137
168	Bioinspiration in light harvesting and catalysis. Nature Reviews Materials, 2020, 5, 828-846.	23.3	136
169	Efficient near-infrared light-emitting diodes based on quantum dots in layered perovskite. Nature Photonics, 2020, 14, 227-233.	15.6	136
170	Advances in solution-processed near-infrared light-emitting diodes. Nature Photonics, 2021, 15, 656-669.	15.6	136
171	Nanomorphology-Enhanced Gas-Evolution Intensifies CO₂ Reduction Electrochemistry. ACS Sustainable Chemistry and Engineering, 2017, 5, 4031-4040.	3.2	135
172	Color-pure red light-emitting diodes based on two-dimensional lead-free perovskites. Science Advances, 2020, 6, .	4.7	135
173	Solution-processed upconversion photodetectors based on quantum dots. Nature Electronics, 2020, 3, 251-258.	13.1	135
174	High-Performance Perovskite Single-Junction and Textured Perovskite/Silicon Tandem Solar Cells via Slot-Die-Coating. ACS Energy Letters, 2020, 5, 3034-3040.	8.8	134
175	Intermediate Binding Control Using Metalâ€"Organic Frameworks Enhances Electrochemical CO₂ Reduction. Journal of the American Chemical Society, 2020, 142, 21513-21521.	6.6	133
176	Ultrafast narrowband exciton routing within layered perovskite nanoplatelets enables low-loss luminescent solar concentrators. Nature Energy, 2019, 4, 197-205.	19.8	132
177	Suppressed Ion Migration in Reduced-Dimensional Perovskites Improves Operating Stability. ACS Energy Letters, 2019, 4, 1521-1527.	8.8	130
178	Electrochemical upgrade of CO2 from amine capture solution. Nature Energy, 2021, 6, 46-53.	19.8	129
179	Ethylene Electrosynthesis: A Comparative Techno-economic Analysis of Alkaline vs Membrane Electrode Assembly vs CO₂â€"COâ€"C₂H₄ Tandems. ACS Energy Letters, 2021, 6, 997-1002.	8.8	129
180	High-Throughput Screening of Lead-Free Perovskite-like Materials for Optoelectronic Applications. Journal of Physical Chemistry C, 2017, 121, 7183-7187.	1.5	128

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181	Efficient and Stable Inverted Perovskite Solar Cells Incorporating Secondary Amines. Advanced Materials, 2019, 31, e1903559.	11.1	128
182	Solution-Processed Quantum Dot Photodetectors. Proceedings of the IEEE, 2009, 97, 1666-1683.	16.4	127
183	Efficient upgrading of CO to C3 fuel using asymmetric C-C coupling active sites. Nature Communications, 2019, 10, 5186.	5.8	127
184	Conventional Solvent Oxidizes Sn(II) in Perovskite Inks. ACS Energy Letters, 2020, 5, 1153-1155.	8.8	127
185	Chloride Passivation of ZnO Electrodes Improves Charge Extraction in Colloidal Quantum Dot Photovoltaics. Advanced Materials, 2017, 29, 1702350.	11.1	126
186	<i>Operando</i> EXAFS study reveals presence of oxygen in oxide-derived silver catalysts for electrochemical CO₂ reduction. Journal of Materials Chemistry A, 2019, 7, 2597-2607.	5.2	125
187	Modeling the electrical double layer to understand the reaction environment in a CO₂electrocatalytic system. Energy and Environmental Science, 2019, 12, 3380-3389.	15.6	125
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