Edward H Sargent

List of Publications by Year
in descending order

711 papers	119,822 citations	100 170 h-index	192 322 g-index
735 all docs	735 docs citations	735 times ranked	65743 citing authors

#	Article	IF	Citations
1	Synthesis, Applications, and Prospects of Quantumâ€Dotâ€inâ€Perovskite Solids. Advanced Energy Materials, 2022, 12, 2100774.	10.2	39
2	The Impact of Ion Migration on the Electroâ€Optic Effect in Hybrid Organicâ€“Inorganic Perovskites. Advanced Functional Materials, 2022, 32, 2107939.	7.8	7
3	Guanidinium-Pseudohalide Perovskite Interfaces Enable Surface Reconstruction of Colloidal Quantum Dots for Efficient and Stable Photovoltaics. ACS Nano, 2022, 16, 1649-1660.	7.3	18
4	Precursor Tailoring Enables Alkylammonium Tin Halide Perovskite Phosphors for Solidâ€State Lighting. Advanced Functional Materials, 2022, 32, .	7.8	17
5	All-perovskite tandem solar cells with improved grain surface passivation. Nature, 2022, 603, 73-78.	13.7	544
6	Efficient recovery of potent tumour-infiltrating lymphocytes through quantitative immunomagnetic cell sorting. Nature Biomedical Engineering, 2022, 6, 108-117.	11.6	31
7	Conjugated polymers with controllable interfacial order and energetics enable tunable heterojunctions in organic and colloidal quantum dot photovoltaics. Journal of Materials Chemistry A, 2022, 10, 1788-1801.	5.2	6
8	Concentrated Ethanol Electrosynthesis from CO₂ via a Porous Hydrophobic Adlayer. ACS Applied Materials & Interfaces, 2022, 14, 4155-4162.	4.0	15
9	A metal-supported single-atom catalytic site enables carbon dioxide hydrogenation. Nature Communications, 2022, 13, 819.	5.8	83
10	Efficient electrosynthesis of n-propanol from carbon monoxide using a Agâ€“Ruâ€“Cu catalyst. Nature Energy, 2022, 7, 170-176.	19.8	96
11	Redox-mediated electrosynthesis of ethylene oxide from CO2 and water. Nature Catalysis, 2022, 5, 185-192.	16.1	40
12	Gas diffusion electrodes, reactor designs and key metrics of low-temperature CO2 electrolysers. Nature Energy, 2022, 7, 130-143.	19.8	237
13	Wide-Bandgap Perovskite Quantum Dots in Perovskite Matrix for Sky-Blue Light-Emitting Diodes. Journal of the American Chemical Society, 2022, 144, 4009-4016.	6.6	92
14	Controlled Crystal Plane Orientations in the ZnO Transport Layer Enable Highâ€Responsivity, Lowâ€Darkâ€Current Infrared Photodetectors. Advanced Materials, 2022, 34, e2200321.	11.1	21
15	Dualâ€Phase Regulation for Highâ€Efficiency Perovskite Lightâ€Emitting Diodes. Advanced Functional Materials, 2022, 32, .	7.8	33
16	In Situ Inorganic Ligand Replenishment Enables Bandgap Stability in Mixedâ€Halide Perovskite Quantum Dot Solids. Advanced Materials, 2022, 34, e2200854.	11.1	82
17	Quantum-size-tuned heterostructures enable efficient and stable inverted perovskite solar cells. Nature Photonics, 2022, 16, 352-358.	15.6	233
18	Rapid On-Cell Selection of High-Performance Human Antibodies. ACS Central Science, 2022, 8, 102-109.	5.3	6

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19	Au/TiO₂ 2Dâ€Photonic Crystals as UVâ€“Visible Photocatalysts for H₂ Production. Advanced Energy Materials, 2022, 12, .	10.2	24
20	Ga doping disrupts C-C coupling and promotes methane electroproduction on CuAl catalysts. Chem Catalysis, 2022, 2, 908-916.	2.9	24
21	Energy Transfer between Size-Controlled CsPbI₃ Quantum Dots for Light-Emitting Diode Application. ACS Applied Materials & Interfaces, 2022, 14, 17691-17697.	4.0	9
22	Carbon-efficient carbon dioxide electrolysers. Nature Sustainability, 2022, 5, 563-573.	11.5	95
23	High-Throughput Evaluation of Emission and Structure in Reduced-Dimensional Perovskites. ACS Central Science, 2022, 8, 571-580.	5.3	6
24	Nanoparticle Amplification Labeling for High-Performance Magnetic Cell Sorting. Nano Letters, 2022, 22, 4774-4783.	4.5	13
25	A microchanneled solid electrolyte for carbon-efficient CO2 electrolysis. Joule, 2022, 6, 1333-1343.	11.7	51
26	Eliminating the need for anodic gas separation in CO2 electroreduction systems via liquid-to-liquid anodic upgrading. Nature Communications, 2022, 13, .	5.8	37
27	Bipolar membrane electrolyzers enable high single-pass CO2 electroreduction to multicarbon products. Nature Communications, 2022, 13, .	5.8	81
28	High carbon utilization in CO2 reduction to multi-carbon products in acidic media. Nature Catalysis, 2022, 5, 564-570.	16.1	197
29	Catalyst Regeneration via Chemical Oxidation Enables Long-Term Electrochemical Carbon Dioxide Reduction. Journal of the American Chemical Society, 2022, 144, 13254-13265.	6.6	30
30	(Digital Presentation) Assessing the Energy Intensity of Product Purification in CO₂ Electrolysis. ECS Meeting Abstracts, 2022, MA2022-01, 2445-2445.	0.0	0
31	Fast Nearâ€Infrared Photodetection Using IIIâ€“V Colloidal Quantum Dots. Advanced Materials, 2022, 34, .	11.1	34
32	Narrowing the Phase Distribution of Quasiâ€2D Perovskites for Stable Deepâ€Blue Electroluminescence. Advanced Science, 2022, 9, .	5.6	22
33	Tracking the expression of therapeutic protein targets in rare cells by antibody-mediated nanoparticle labelling and magnetic sorting. Nature Biomedical Engineering, 2021, 5, 41-52.	11.6	40
34	CO₂ Electroreduction to Formate at a Partial Current Density of 930 mA cm^{â€“2} with InP Colloidal Quantum Dot Derived Catalysts. ACS Energy Letters, 2021, 6, 79-84.	8.8	100
35	Electrochemical upgrade of CO2 from amine capture solution. Nature Energy, 2021, 6, 46-53.	19.8	129
36	Deepâ€Blue Perovskite Singleâ€Mode Lasing through Efficient Vaporâ€Assisted Chlorination. Advanced Materials, 2021, 33, e2006697.	11.1	30

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37	Linear Electroâ€Optic Modulation in Highly Polarizable Organic Perovskites. Advanced Materials, 2021, 33, e2006368.	11.1	20
38	3Dâ€Printable Fluoropolymer Gas Diffusion Layers for CO₂ Electroreduction. Advanced Materials, 2021, 33, e2003855.	11.1	65
39	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
40	Accurate and Affordable Explicit Solvent Quantum Mechanics for Electrocatalysis Investigations. Matter, 2021, 4, 12-14.	5.0	4
41	An antibonding valence band maximum enables defect-tolerant and stable GeSe photovoltaics. Nature Communications, 2021, 12, 670.	5.8	58
42	Efficient bifacial monolithic perovskite/silicon tandem solar cells via bandgap engineering. Nature Energy, 2021, 6, 167-175.	19.8	164
43	Suppressing the liquid product crossover in electrochemical CO₂ reduction. SmartMat, 2021, 2, 12-16.	6.4	90
44	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
45	Band Engineering via Gradient Molecular Dopants for CsFA Perovskite Solar Cells. Advanced Functional Materials, 2021, 31, 2010572.	7.8	12
46	Self-Cleaning CO₂ Reduction Systems: Unsteady Electrochemical Forcing Enables Stability. ACS Energy Letters, 2021, 6, 809-815.	8.8	159
47	Designing anion exchange membranes for CO2 electrolysers. Nature Energy, 2021, 6, 339-348.	19.8	209
48	Grain Transformation and Degradation Mechanism of Formamidinium and Cesium Lead Iodide Perovskite under Humidity and Light. ACS Energy Letters, 2021, 6, 934-940.	8.8	90
49	Accelerated Discovery of Optoelectronic Materials. ACS Photonics, 2021, 8, 699-701.	3.2	1
50	Solventâ€Assisted Kinetic Trapping in Quaternary Perovskites. Advanced Materials, 2021, 33, e2008690.	11.1	6
51	Reagentless biomolecular analysis using a molecular pendulum. Nature Chemistry, 2021, 13, 428-434.	6.6	70
52	Cascade CO2 electroreduction enables efficient carbonate-free production of ethylene. Joule, 2021, 5, 706-719.	11.7	158
53	Colloidal quantum dot photodetectors with 10-ns response time and 80% quantum efficiency at 1,550Ânm. Matter, 2021, 4, 1042-1053.	5.0	88
54	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

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55	Discovery of temperature-induced stability reversal in perovskites using high-throughput robotic learning. Nature Communications, 2021, 12, 2191.	5.8	77
56	Dopant-Assisted Matrix Stabilization Enables Thermoelectric Performance Enhancement in n-Type Quantum Dot Films. ACS Applied Materials & Interfaces, 2021, 13, 18999-19007.	4.0	3
57	Electro-Optic Modulation Using Metal-Free Perovskites. ACS Applied Materials & Interfaces, 2021, 13, 19042-19047.	4.0	12
58	Silica-copper catalyst interfaces enable carbon-carbon coupling towards ethylene electrosynthesis. Nature Communications, 2021, 12, 2808.	5.8	91
59	Low coordination number copper catalysts for electrochemical CO2 methanation in a membrane electrode assembly. Nature Communications, 2021, 12, 2932.	5.8	97
60	Dealloying Ni-Co-Se Electrocatalysts for Efficient and Stable Oxygen Evolution at High Current Densities. ECS Meeting Abstracts, 2021, MA2021-01, 1848-1848.	0.0	1
61	Nanocrystal Quantum Dot Devices: How the Lead Sulfide (PbS) System Teaches Us the Importance of Surfaces. Chimia, 2021, 75, 398.	0.3	13
62	Gold-in-copper at low *CO coverage enables efficient electromethanation of CO2. Nature Communications, 2021, 12, 3387.	5.8	70
63	Allâ€Inorganic Quantumâ€Dot LEDs Based on a Phaseâ€Stabilized Îâ€CsPbI 3 Perovskite. Angewandte Chemie, 2021, 133, 16300-16306.	1.6	1
64	CO ₂ electrolysis to multicarbon products in strong acid. Science, 2021, 372, 1074-1078.	6.0	541
65	Reply to: Perovskite decomposition and missing crystal planes in HRTEM. Nature, 2021, 594, E8-E9.	13.7	2
66	Multication perovskite 2D/3D interfaces form via progressive dimensional reduction. Nature Communications, 2021, 12, 3472.	5.8	89
67	Allâ€Inorganic Quantumâ€Dot LEDs Based on a Phaseâ€Stabilized Îâ€CsPbI₃ Perovskite. Angewandte Chemie - International Edition, 2021, 60, 16164-16170.	7.2	210
68	Toward Stable Monolithic Perovskite/Silicon Tandem Photovoltaics: A Six-Month Outdoor Performance Study in a Hot and Humid Climate. ACS Energy Letters, 2021, 6, 2944-2951.	8.8	42
69	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
70	Solvent Engineering of Colloidal Quantum Dot Inks for Scalable Fabrication of Photovoltaics. ACS Applied Materials & Interfaces, 2021, 13, 36992-37003.	4.0	17
71	Gold Adparticles on Silver Combine Low Overpotential and High Selectivity in Electrochemical CO₂ Conversion. ACS Applied Energy Materials, 2021, 4, 7504-7512.	2.5	18
72	Facetâ€Oriented Coupling Enables Fast and Sensitive Colloidal Quantum Dot Photodetectors. Advanced Materials, 2021, 33, e2101056.	11.1	42

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73	Boosting photoelectrochemical efficiency by near-infrared-active lattice-matched morphological heterojunctions. Nature Communications, 2021, 12, 4296.	5.8	23
74	Ligand Exchange at a Covalent Surface Enables Balanced Stoichiometry in IIIâ€“V Colloidal Quantum Dots. Nano Letters, 2021, 21, 6057-6063.	4.5	34
75	One-Step Synthesis of SnI₂Â·(DMSO)_x Adducts for High-Performance Tin Perovskite Solar Cells. Journal of the American Chemical Society, 2021, 143, 10970-10976.	6.6	280
76	Passivation of the Buried Interface via Preferential Crystallization of 2D Perovskite on Metal Oxide Transport Layers. Advanced Materials, 2021, 33, e2103394.	11.1	99
77	Reducing the crossover of carbonate and liquid products during carbon dioxide electroreduction. Cell Reports Physical Science, 2021, 2, 100522.	2.8	38
78	Advances in solution-processed near-infrared light-emitting diodes. Nature Photonics, 2021, 15, 656-669.	15.6	136
79	Quantum Dot Selfâ€Assembly Enables Lowâ€Threshold Lasing. Advanced Science, 2021, 8, e2101125.	5.6	28
80	Semiconductor quantum dots: Technological progress and future challenges. Science, 2021, 373, .	6.0	600
81	Colloidal quantum dot electronics. Nature Electronics, 2021, 4, 548-558.	13.1	192
82	Abnormal Phase Transition and Band Renormalization of Guanidinium-Based Organicâ€“Inorganic Hybrid Perovskite. ACS Applied Materials & Interfaces, 2021, 13, 44964-44971.	4.0	8
83	In Situ Formation of Nano Niâ€“Co Oxyhydroxide Enables Water Oxidation Electrocatalysts Durable at High Current Densities. Advanced Materials, 2021, 33, e2103812.	11.1	78
84	Glycerol Oxidation Pairs with Carbon Monoxide Reduction for Low-Voltage Generation of C₂ and C₃ Product Streams. ACS Energy Letters, 2021, 6, 3538-3544.	8.8	36
85	Electroosmotic flow steers neutral products and enables concentrated ethanol electroproduction from CO2. Joule, 2021, 5, 2742-2753.	11.7	37
86	Stable, active CO2 reduction to formate via redox-modulated stabilization of active sites. Nature Communications, 2021, 12, 5223.	5.8	145
87	Bright and Stable Light-Emitting Diodes Based on Perovskite Quantum Dots in Perovskite Matrix. Journal of the American Chemical Society, 2021, 143, 15606-15615.	6.6	94
88	Single-step-fabricated disordered metasurfaces for enhanced light extraction from LEDs. Light: Science and Applications, 2021, 10, 180.	7.7	23
89	Ultrasensitive Detection and Depletion of Rare Leukemic B Cells in T Cell Populations via Immunomagnetic Cell Ranking. Analytical Chemistry, 2021, 93, 2327-2335.	3.2	10
90	Control Over Ligand Exchange Reactivity in Hole Transport Layer Enables High-Efficiency Colloidal Quantum Dot Solar Cells. ACS Energy Letters, 2021, 6, 468-476.	8.8	32

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91	Ligand-bridged charge extraction and enhanced quantum efficiency enable efficient nâ€“iâ€“p perovskite/silicon tandem solar cells. Energy and Environmental Science, 2021, 14, 4377-4390.	15.6	79
92	Can sustainable ammonia synthesis pathways compete with fossil-fuel based Haberâ€“Bosch processes?. Energy and Environmental Science, 2021, 14, 2535-2548.	15.6	162
93	A microfluidic platform enables comprehensive gene expression profiling of mouse retinal stem cells. Lab on A Chip, 2021, 21, 4464-4476.	3.1	3
94	Thiophene- and selenophene-based conjugated polymeric mixed ionic/electronic conductors. Journal of Chemical Physics, 2021, 155, 134704.	1.2	2
95	Ternary Alloys Enable Efficient Production of Methoxylated Chemicals via Selective Electrocatalytic Hydrogenation of Lignin Monomers. Journal of the American Chemical Society, 2021, 143, 17226-17235.	6.6	43
96	Boride-derived oxygen-evolution catalysts. Nature Communications, 2021, 12, 6089.	5.8	51
97	Light and Humidity Induced Degradation and Grain Transformation in Mixed Cation Perovskites. , 2021, , .		1
98	Recombination Dynamics in PbS Nanocrystal Quantum Dot Solar Cells Studied through Driftâ€“Diffusion Simulations. ACS Applied Electronic Materials, 2021, 3, 4977-4989.	2.0	8
99	Early Transition-Metal-Based Binary Oxide/Nitride for Efficient Electrocatalytic Hydrogen Evolution from Saline Water in Different pH Environments. ACS Applied Materials & Interfaces, 2021, 13, 53702-53716.	4.0	22
100	Defect Tolerance of Mixed B-Site Organicâ€“Inorganic Halide Perovskites. ACS Energy Letters, 2021, 6, 4220-4227.	8.8	30
101	Monitoring of Cardiac Disease with Reagent-free Molecular Pendulum Aptasensors. ECS Meeting Abstracts, 2021, MA2021-02, 1563-1563.	0.0	0
102	Rigid Conjugated Diamine Templates for Stable Dionâ€“Jacobson-Type Two-Dimensional Perovskites. Journal of the American Chemical Society, 2021, 143, 19901-19908.	6.6	39
103	Downstream of the CO₂ Electrolyzer: Assessing the Energy Intensity of Product Separation. ACS Energy Letters, 2021, 6, 4405-4412.	8.8	53
104	Distribution control enables efficient reduced-dimensional perovskite LEDs. Nature, 2021, 599, 594-598.	13.7	358
105	Bound State in the Continuum in Nanoantenna-Coupled Slab Waveguide Enables Low-Threshold Quantum-Dot Lasing. Nano Letters, 2021, 21, 9754-9760.	4.5	30
106	Active Sulfur Sites in Semimetallic Titanium Disulfide Enable CO₂ Electroreduction. ACS Catalysis, 2020, 10, 66-72.	5.5	25
107	Stabilizing Surface Passivation Enables Stable Operation of Colloidal Quantum Dot Photovoltaic Devices at Maximum Power Point in an Air Ambient. Advanced Materials, 2020, 32, e1906497.	11.1	47
108	Edge stabilization in reduced-dimensional perovskites. Nature Communications, 2020, 11, 170.	5.8	147

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109	Oxygen-tolerant electroproduction of C₂ products from simulated flue gas. Energy and Environmental Science, 2020, 13, 554-561.	15.6	113
110	Efficient electrocatalytic conversion of carbon dioxide in a low-resistance pressurized alkaline electrolyzer. Applied Energy, 2020, 261, 114305.	5.1	65
111	Catalyst synthesis under CO2 electroreduction favours faceting and promotes renewable fuels electrosynthesis. Nature Catalysis, 2020, 3, 98-106.	16.1	325
112	Spatial Collection in Colloidal Quantum Dot Solar Cells. Advanced Functional Materials, 2020, 30, 1908200.	7.8	24
113	Tuning OH binding energy enables selective electrochemical oxidation of ethylene to ethylene glycol. Nature Catalysis, 2020, 3, 14-22.	16.1	120
114	Bright high-colour-purity deep-blue carbon dot light-emitting diodes via efficient edge amination. Nature Photonics, 2020, 14, 171-176.	15.6	303
115	Nanostructured Architectures for Biomolecular Detection inside and outside the Cell. Advanced Functional Materials, 2020, 30, 1907701.	7.8	19
116	Narrow Emission from Rb₃Sb₂I₉ Nanoparticles. Advanced Optical Materials, 2020, 8, 1901606.	3.6	18
117	Cascade surface modification of colloidal quantum dot inks enables efficient bulk homojunction photovoltaics. Nature Communications, 2020, 11, 103.	5.8	181
118	High-valence metals improve oxygen evolution reaction performance by modulating 3d metal oxidation cycle energetics. Nature Catalysis, 2020, 3, 985-992.	16.1	390
119	All-Perovskite Tandem Solar Cells: A Roadmap to Uniting High Efficiency with High Stability. Accounts of Materials Research, 2020, 1, 63-76.	5.9	57
120	Naphthalenediimide Cations Inhibit 2D Perovskite Formation and Facilitate Subpicosecond Electron Transfer. Journal of Physical Chemistry C, 2020, 124, 24379-24390.	1.5	17
121	Color-pure red light-emitting diodes based on two-dimensional lead-free perovskites. Science Advances, 2020, 6, .	4.7	135
122	Autonomous atmospheric water seeping MOF matrix. Science Advances, 2020, 6, .	4.7	120
123	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
124	Chelating-agent-assisted control of CsPbBr3 quantum well growth enables stable blue perovskite emitters. Nature Communications, 2020, 11, 3674.	5.8	112
125	Magnetic Ranking Cytometry: Profiling Rare Cells at the Single-Cell Level. Accounts of Chemical Research, 2020, 53, 1445-1457.	7.6	18
126	Promoting CO2 methanation via ligand-stabilized metal oxide clusters as hydrogen-donating motifs. Nature Communications, 2020, 11, 6190.	5.8	93

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127	Structural Distortion and Bandgap Increase of Two-Dimensional Perovskites Induced by Trifluoromethyl Substitution on Spacer Cations. Journal of Physical Chemistry Letters, 2020, 11, 10144-10149.	2.1	22
128	Bioinspiration in light harvesting and catalysis. Nature Reviews Materials, 2020, 5, 828-846.	23.3	136
129	Enhanced multi-carbon alcohol electroproduction from CO via modulated hydrogen adsorption. Nature Communications, 2020, 11, 3685.	5.8	72
130	Highâ€Throughput Nanofabrication of Metasurfaces with Polarizationâ€Dependent Response. Advanced Optical Materials, 2020, 8, 2000786.	3.6	13
131	A Multi-functional Molecular Modifier Enabling Efficient Large-Area Perovskite Light-Emitting Diodes. Joule, 2020, 4, 1977-1987.	11.7	111
132	Bifunctional Surface Engineering on SnO₂ Reduces Energy Loss in Perovskite Solar Cells. ACS Energy Letters, 2020, 5, 2796-2801.	8.8	239
133	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
134	High-Rate and Efficient Ethylene Electrosynthesis Using a Catalyst/Promoter/Transport Layer. ACS Energy Letters, 2020, 5, 2811-2818.	8.8	106
135	Bromine Incorporation and Suppressed Cation Rotation in Mixed-Halide Perovskites. ACS Nano, 2020, 14, 15107-15118.	7.3	23
136	A Tuned Alternating Dâ€“A Copolymer Holeâ€Transport Layer Enables Colloidal Quantum Dot Solar Cells with Superior Fill Factor and Efficiency. Advanced Materials, 2020, 32, e2004985.	11.1	56
137	Colloidal Quantum Dot Solar Cell Band Alignment using Two-Step Ionic Doping. , 2020, 2, 1583-1589.		15
138	Efficient and Stable Colloidal Quantum Dot Solar Cells with a Greenâ€Solvent Holeâ€Transport Layer. Advanced Energy Materials, 2020, 10, 2002084.	10.2	23
139	Orthogonal colloidal quantum dot inks enable efficient multilayer optoelectronic devices. Nature Communications, 2020, 11, 4814.	5.8	48
140	Monolithic Organic/Colloidal Quantum Dot Hybrid Tandem Solar Cells via Buffer Engineering. Advanced Materials, 2020, 32, e2004657.	11.1	16
141	Perovskite Single-Crystal Thin Film Devices Using Lithography Assisted Epitaxy. Matter, 2020, 3, 619-620.	5.0	7
142	CO₂ Electroreduction to Methane at Production Rates Exceeding 100 mA/cm². ACS Sustainable Chemistry and Engineering, 2020, 8, 14668-14673.	3.2	41
143	Dual Coordination of Ti and Pb Using Bilinkable Ligands Improves Perovskite Solar Cell Performance and Stability. Advanced Functional Materials, 2020, 30, 2005155.	7.8	33
144	Suppression of Auger Recombination by Gradient Alloying in InAs/CdSe/CdS QDs. Chemistry of Materials, 2020, 32, 7703-7709.	3.2	15

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145	Intermediate Binding Control Using Metalâ€“Organic Frameworks Enhances Electrochemical CO₂ Reduction. Journal of the American Chemical Society, 2020, 142, 21513-21521.	6.6	133
146	InP-Quantum-Dot-in-ZnS-Matrix Solids for Thermal and Air Stability. Chemistry of Materials, 2020, 32, 9584-9590.	3.2	8
147	Nanostructured Architectures Promote the Mesenchymalâ€“Epithelial Transition for Invasive Cells. ACS Nano, 2020, 14, 5324-5336.	7.3	17
148	Metalâ€Free Hydrogenâ€Bonded Polymers Mimic Noble Metal Electrocatalysts. Advanced Materials, 2020, 32, e1902177.	11.1	24
149	Crystal Site Feature Embedding Enables Exploration of Large Chemical Spaces. Matter, 2020, 3, 433-448.	5.0	33
150	Mechanisms of LiF Interlayer Enhancements of Perovskite Light-Emitting Diodes. Journal of Physical Chemistry Letters, 2020, 11, 4213-4220.	2.1	12
151	Thiophene Cation Intercalation to Improve Bandâ€Edge Integrity in Reducedâ€Dimensional Perovskites. Angewandte Chemie - International Edition, 2020, 59, 13977-13983.	7.2	36
152	Efficient electrically powered CO2-to-ethanol via suppression of deoxygenation. Nature Energy, 2020, 5, 478-486.	19.8	363
153	Thiophene Cation Intercalation to Improve Bandâ€Edge Integrity in Reducedâ€Dimensional Perovskites. Angewandte Chemie, 2020, 132, 14081-14087.	1.6	16
154	Ultrasensitive and rapid quantification of rare tumorigenic stem cells in hPSC-derived cardiomyocyte populations. Science Advances, 2020, 6, eaay7629.	4.7	28
155	Accelerated discovery of CO2 electrocatalysts using active machine learning. Nature, 2020, 581, 178-183.	13.7	807
156	Multiple Self-Trapped Emissions in the Lead-Free Halide Cs₃Cu₂I₅. Journal of Physical Chemistry Letters, 2020, 11, 4326-4330.	2.1	79
157	High-Throughput Screening of Antisolvents for the Deposition of High-Quality Perovskite Thin Films. ACS Applied Materials & Interfaces, 2020, 12, 26026-26032.	4.0	11
158	Colloidal Quantum Dot Photovoltaics Using Ultrathin, Solution-Processed Bilayer In₂O₃/ZnO Electron Transport Layers with Improved Stability. ACS Applied Energy Materials, 2020, 3, 5135-5141.	2.5	13
159	Chloride-mediated selective electrosynthesis of ethylene and propylene oxides at high current density. Science, 2020, 368, 1228-1233.	6.0	196
160	Near infrared organic photodetectors based on enhanced charge transfer state absorption by photonic architectures. Journal of Materials Chemistry C, 2020, 8, 9688-9696.	2.7	11
161	Micron Thick Colloidal Quantum Dot Solids. Nano Letters, 2020, 20, 5284-5291.	4.5	47
162	Stable, Bromine-Free, Tetragonal Perovskites with 1.7 eV Bandgaps via A-Site Cation Substitution. , 2020, 2, 869-872.		18

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163	Colloidal Quantum Dot Bulk Heterojunction Solids with Nearâ€Unity Charge Extraction Efficiency. Advanced Science, 2020, 7, 2000894.	5.6	22
164	Dimensional Mixing Increases the Efficiency of 2D/3D Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2020, 11, 5115-5119.	2.1	34
165	Monolayer Perovskite Bridges Enable Strong Quantum Dot Coupling for Efficient Solar Cells. Joule, 2020, 4, 1542-1556.	11.7	143
166	A Chemically Orthogonal Hole Transport Layer for Efficient Colloidal Quantum Dot Solar Cells. Advanced Materials, 2020, 32, e1906199.	11.1	59
167	Single-Precursor Intermediate Shelling Enables Bright, Narrow Line Width InAs/InZnP-Based QD Emitters. Chemistry of Materials, 2020, 32, 2919-2925.	3.2	13
168	Chloride Insertionâ€“Immobilization Enables Bright, Narrowband, and Stable Blue-Emitting Perovskite Diodes. Journal of the American Chemical Society, 2020, 142, 5126-5134.	6.6	116
169	Chiral-perovskite optoelectronics. Nature Reviews Materials, 2020, 5, 423-439.	23.3	445
170	Machine-Learning-Accelerated Perovskite Crystallization. Matter, 2020, 2, 938-947.	5.0	91
171	Efficient tandem solar cells with solution-processed perovskite on textured crystalline silicon. Science, 2020, 367, 1135-1140.	6.0	525
172	Enhanced optical path and electron diffusion length enable high-efficiency perovskite tandems. Nature Communications, 2020, 11, 1257.	5.8	180
173	Conventional Solvent Oxidizes Sn(II) in Perovskite Inks. ACS Energy Letters, 2020, 5, 1153-1155.	8.8	127
174	Regulating strain in perovskite thin films through charge-transport layers. Nature Communications, 2020, 11, 1514.	5.8	346
175	Solution-processed upconversion photodetectors based on quantum dots. Nature Electronics, 2020, 3, 251-258.	13.1	135
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