Thomas Burdyny

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#	Paper	IF	Citations
498	Solar cells. Low trap-state density and long carrier diffusion in organolead trihalide perovskite single crystals. <i>Science</i> , 2015 , 347, 519-22	33.3	3307
497	Perovskite light-emitting diodes with external quantum efficiency exceeding 20 per cent. <i>Nature</i> , 2018 , 562, 245-248	50.4	1802
496	Efficient and stable solution-processed planar perovskite solar cells via contact passivation. <i>Science</i> , 2017 , 355, 722-726	33.3	1667
495	Solution-processed PbS quantum dot infrared photodetectors and photovoltaics. <i>Nature Materials</i> , 2005 , 4, 138-42	27	1620
494	Perovskite energy funnels for efficient light-emitting diodes. <i>Nature Nanotechnology</i> , 2016 , 11, 872-877	7 28.7	1484
493	Homogeneously dispersed multimetal oxygen-evolving catalysts. <i>Science</i> , 2016 , 352, 333-7	33.3	1459
492	Colloidal-quantum-dot photovoltaics using atomic-ligand passivation. <i>Nature Materials</i> , 2011 , 10, 765-7	127	1206
491	Perovskite photonic sources. <i>Nature Photonics</i> , 2016 , 10, 295-302	33.9	1079
490	Enhanced electrocatalytic CO reduction via field-induced reagent concentration. <i>Nature</i> , 2016 , 537, 382	!-38.4 !	997
489	Hybrid passivated colloidal quantum dot solids. <i>Nature Nanotechnology</i> , 2012 , 7, 577-82	28.7	993
488	CO electroreduction to ethylene via hydroxide-mediated copper catalysis at an abrupt interface. <i>Science</i> , 2018 , 360, 783-787	33.3	980
487	Ligand-Stabilized Reduced-Dimensionality Perovskites. <i>Journal of the American Chemical Society</i> , 2016 , 138, 2649-55	16.4	889
486	Challenges for commercializing perovskite solar cells. <i>Science</i> , 2018 , 361,	33.3	853
485	Efficient and stable emission of warm-white light from lead-free halide double perovskites. <i>Nature</i> , 2018 , 563, 541-545	50.4	835
484	Perovskite-fullerene hybrid materials suppress hysteresis in planar diodes. <i>Nature Communications</i> , 2015 , 6, 7081	17.4	815
483	Colloidal Quantum Dot Solar Cells. <i>Chemical Reviews</i> , 2015 , 115, 12732-63	68.1	812
482	What would it take for renewably powered electrosynthesis to displace petrochemical processes?. <i>Science</i> , 2019 , 364,	33.3	749

(2020-2016)

481	Building devices from colloidal quantum dots. <i>Science</i> , 2016 , 353,	33.3	718
480	Highly Efficient Perovskite-Quantum-Dot Light-Emitting Diodes by Surface Engineering. <i>Advanced Materials</i> , 2016 , 28, 8718-8725	24	700
479	Solution-processed semiconductors for next-generation photodetectors. <i>Nature Reviews Materials</i> , 2017 , 2,	73.3	674
478	Materials processing routes to trap-free halide perovskites. <i>Nano Letters</i> , 2014 , 14, 6281-6	11.5	567
477	Highly Oriented Low-Dimensional Tin Halide Perovskites with Enhanced Stability and Photovoltaic Performance. <i>Journal of the American Chemical Society</i> , 2017 , 139, 6693-6699	16.4	558
476	Ultra-bright and highly efficient inorganic based perovskite light-emitting diodes. <i>Nature Communications</i> , 2017 , 8, 15640	17.4	557
475	Managing grains and interfaces via ligand anchoring enables 22.3%-efficiency inverted perovskite solar cells. <i>Nature Energy</i> , 2020 , 5, 131-140	62.3	552
474	Thin-film Sb2Se3 photovoltaics with oriented one-dimensional ribbons and benign grain boundaries. <i>Nature Photonics</i> , 2015 , 9, 409-415	33.9	548
473	What Should We Make with CO2 and How Can We Make It?. Joule, 2018, 2, 825-832	27.8	546
472	Planar-integrated single-crystalline perovskite photodetectors. <i>Nature Communications</i> , 2015 , 6, 8724	17.4	497
47 ²	Planar-integrated single-crystalline perovskite photodetectors. <i>Nature Communications</i> , 2015 , 6, 8724 Catalyst electro-redeposition controls morphology and oxidation state for selective carbon dioxide reduction. <i>Nature Catalysis</i> , 2018 , 1, 103-110	17.4 36.5	497 479
	Catalyst electro-redeposition controls morphology and oxidation state for selective carbon dioxide		
471	Catalyst electro-redeposition controls morphology and oxidation state for selective carbon dioxide reduction. <i>Nature Catalysis</i> , 2018 , 1, 103-110	36.5	479
47 ¹ 47 ⁰	Catalyst electro-redeposition controls morphology and oxidation state for selective carbon dioxide reduction. <i>Nature Catalysis</i> , 2018 , 1, 103-110 Air-stable n-type colloidal quantum dot solids. <i>Nature Materials</i> , 2014 , 13, 822-8 Monolithic all-perovskite tandem solar cells with 24.8% efficiency exploiting comproportionation	36.5	479
47 ¹ 47 ⁰ 469	Catalyst electro-redeposition controls morphology and oxidation state for selective carbon dioxide reduction. <i>Nature Catalysis</i> , 2018 , 1, 103-110 Air-stable n-type colloidal quantum dot solids. <i>Nature Materials</i> , 2014 , 13, 822-8 Monolithic all-perovskite tandem solar cells with 24.8% efficiency exploiting comproportionation to suppress Sn(ii) oxidation in precursor ink. <i>Nature Energy</i> , 2019 , 4, 864-873	36.5 27 62.3	479 466 463
471 470 469 468	Catalyst electro-redeposition controls morphology and oxidation state for selective carbon dioxide reduction. <i>Nature Catalysis</i> , 2018 , 1, 103-110 Air-stable n-type colloidal quantum dot solids. <i>Nature Materials</i> , 2014 , 13, 822-8 Monolithic all-perovskite tandem solar cells with 24.8% efficiency exploiting comproportionation to suppress Sn(ii) oxidation in precursor ink. <i>Nature Energy</i> , 2019 , 4, 864-873 Infrared Quantum Dots. <i>Advanced Materials</i> , 2005 , 17, 515-522	36.5 27 62.3	479 466 463 452
471 470 469 468 467	Catalyst electro-redeposition controls morphology and oxidation state for selective carbon dioxide reduction. <i>Nature Catalysis</i> , 2018 , 1, 103-110 Air-stable n-type colloidal quantum dot solids. <i>Nature Materials</i> , 2014 , 13, 822-8 Monolithic all-perovskite tandem solar cells with 24.8% efficiency exploiting comproportionation to suppress Sn(ii) oxidation in precursor ink. <i>Nature Energy</i> , 2019 , 4, 864-873 Infrared Quantum Dots. <i>Advanced Materials</i> , 2005 , 17, 515-522 Designing materials for electrochemical carbon dioxide recycling. <i>Nature Catalysis</i> , 2019 , 2, 648-658 Dopant-induced electron localization drives CO reduction to C hydrocarbons. <i>Nature Chemistry</i> ,	36.5 27 62.3 24 36.5	479 466 463 452 442

463	Efficient Luminescence from Perovskite Quantum Dot Solids. <i>ACS Applied Materials & Amp; Interfaces</i> , 2015 , 7, 25007-13	9.5	401
462	Electrochemical CO Reduction into Chemical Feedstocks: From Mechanistic Electrocatalysis Models to System Design. <i>Advanced Materials</i> , 2019 , 31, e1807166	24	396
461	Perovskites for Next-Generation Optical Sources. <i>Chemical Reviews</i> , 2019 , 119, 7444-7477	68.1	391
460	CO2 reduction on gas-diffusion electrodes and why catalytic performance must be assessed at commercially-relevant conditions. <i>Energy and Environmental Science</i> , 2019 , 12, 1442-1453	35.4	385
459	Quantum-dot-in-perovskite solids. <i>Nature</i> , 2015 , 523, 324-8	50.4	382
45 ⁸	Color-stable highly luminescent sky-blue perovskite light-emitting diodes. <i>Nature Communications</i> , 2018 , 9, 3541	17.4	370
457	Suppression of atomic vacancies via incorporation of isovalent small ions to increase the stability of halide perovskite solar cells in ambient air. <i>Nature Energy</i> , 2018 , 3, 648-654	62.3	355
456	Steering post-CII coupling selectivity enables high efficiency electroreduction of carbon dioxide to multi-carbon alcohols. <i>Nature Catalysis</i> , 2018 , 1, 421-428	36.5	348
455	Sensitive solution-processed visible-wavelength photodetectors. <i>Nature Photonics</i> , 2007 , 1, 531-534	33.9	342
454	Tandem colloidal quantum dot solar cells employing a graded recombination layer. <i>Nature Photonics</i> , 2011 , 5, 480-484	33.9	336
453	Accelerated discovery of CO electrocatalysts using active machine learning. <i>Nature</i> , 2020 , 581, 178-183	50.4	328
452	Theory-driven design of high-valence metal sites for water oxidation confirmed using in situ soft X-ray absorption. <i>Nature Chemistry</i> , 2018 , 10, 149-154	17.6	328
451	Molecular tuning of CO-to-ethylene conversion. <i>Nature</i> , 2020 , 577, 509-513	50.4	321
450	Size-tunable infrared (1000¶600 nm) electroluminescence from PbS quantum-dot nanocrystals in a semiconducting polymer. <i>Applied Physics Letters</i> , 2003 , 82, 2895-2897	3.4	312
449	Electron-phonon interaction in efficient perovskite blue emitters. <i>Nature Materials</i> , 2018 , 17, 550-556	27	310
448	Tailoring the Energy Landscape in Quasi-2D Halide Perovskites Enables Efficient Green-Light Emission. <i>Nano Letters</i> , 2017 , 17, 3701-3709	11.5	309
447	Efficient tandem solar cells with solution-processed perovskite on textured crystalline silicon. <i>Science</i> , 2020 , 367, 1135-1140	33.3	298
446	Highly efficient quantum dot near-infrared light-emitting diodes. <i>Nature Photonics</i> , 2016 , 10, 253-257	33.9	295

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445	Infrared photovoltaics made by solution processing. <i>Nature Photonics</i> , 2009 , 3, 325-331	33.9	294
444	Bipolar-shell resurfacing for blue LEDs based on strongly confined perovskite quantum dots. Nature Nanotechnology, 2020 , 15, 668-674	28.7	281
443	Passivation Using Molecular Halides Increases Quantum Dot Solar Cell Performance. <i>Advanced Materials</i> , 2016 , 28, 299-304	24	279
442	10.6% Certified Colloidal Quantum Dot Solar Cells via Solvent-Polarity-Engineered Halide Passivation. <i>Nano Letters</i> , 2016 , 16, 4630-4	11.5	275
441	Thermal unequilibrium of strained black CsPbI thin films. <i>Science</i> , 2019 , 365, 679-684	33.3	272
440	Perovskites for Light Emission. <i>Advanced Materials</i> , 2018 , 30, e1801996	24	270
439	Heterovalent Dopant Incorporation for Bandgap and Type Engineering of Perovskite Crystals. Journal of Physical Chemistry Letters, 2016 , 7, 295-301	6.4	268
438	Amine-Free Synthesis of Cesium Lead Halide Perovskite Quantum Dots for Efficient Light-Emitting Diodes. <i>Advanced Functional Materials</i> , 2016 , 26, 8757-8763	15.6	265
437	Multi-site electrocatalysts for hydrogen evolution in neutral media by destabilization of water molecules. <i>Nature Energy</i> , 2019 , 4, 107-114	62.3	264
436	Sulfur-Modulated Tin Sites Enable Highly Selective Electrochemical Reduction of CO2 to Formate. <i>Joule</i> , 2017 , 1, 794-805	27.8	263
435	Highly Emissive Green Perovskite Nanocrystals in a Solid State Crystalline Matrix. <i>Advanced Materials</i> , 2017 , 29, 1605945	24	252
434	Charge-extraction strategies for colloidal quantum dot photovoltaics. <i>Nature Materials</i> , 2014 , 13, 233-4	0 27	252
433	Compositional and orientational control in metal halide perovskites of reduced dimensionality. <i>Nature Materials</i> , 2018 , 17, 900-907	27	252
432	Halide-Dependent Electronic Structure of Organolead Perovskite Materials. <i>Chemistry of Materials</i> , 2015 , 27, 4405-4412	9.6	251
431	Sensitive, Fast, and Stable Perovskite Photodetectors Exploiting Interface Engineering. <i>ACS Photonics</i> , 2015 , 2, 1117-1123	6.3	247
430	Colloidal quantum dot ligand engineering for high performance solar cells. <i>Energy and Environmental Science</i> , 2016 , 9, 1130-1143	35.4	235
429	All-perovskite tandem solar cells with 24.2% certified efficiency and area over 1 cm2 using surface-anchoring zwitterionic antioxidant. <i>Nature Energy</i> , 2020 , 5, 870-880	62.3	233
428	Continuous-wave lasing in colloidal quantum dot solids enabled by facet-selective epitaxy. <i>Nature</i> , 2017 , 544, 75-79	50.4	225

427	Perovskite seeding growth of formamidinium-lead-iodide-based perovskites for efficient and stable solar cells. <i>Nature Communications</i> , 2018 , 9, 1607	17.4	218
426	Rational Design of Efficient Palladium Catalysts for Electroreduction of Carbon Dioxide to Formate. <i>ACS Catalysis</i> , 2016 , 6, 8115-8120	13.1	212
425	Synthetic Control over Quantum Well Width Distribution and Carrier Migration in Low-Dimensional Perovskite Photovoltaics. <i>Journal of the American Chemical Society</i> , 2018 , 140, 2890-2896	16.4	211
424	Colloidal quantum dot solids for solution-processed solar cells. <i>Nature Energy</i> , 2016 , 1,	62.3	210
423	Two-Photon Absorption in Organometallic Bromide Perovskites. ACS Nano, 2015, 9, 9340-6	16.7	208
422	Bright colloidal quantum dot light-emitting diodes enabled by efficient chlorination. <i>Nature Photonics</i> , 2018 , 12, 159-164	33.9	206
421	Spin control in reduced-dimensional chiral perovskites. <i>Nature Photonics</i> , 2018 , 12, 528-533	33.9	205
420	Copper nanocavities confine intermediates for efficient electrosynthesis of C3 alcohol fuels from carbon monoxide. <i>Nature Catalysis</i> , 2018 , 1, 946-951	36.5	205
419	An electrochemical clamp assay for direct, rapid analysis of circulating nucleic acids in serum. <i>Nature Chemistry</i> , 2015 , 7, 569-75	17.6	198
418	2D matrix engineering for homogeneous quantum dot coupling in photovoltaic solids. <i>Nature Nanotechnology</i> , 2018 , 13, 456-462	28.7	196
417	Molecular enhancement of heterogeneous CO reduction. <i>Nature Materials</i> , 2020 , 19, 266-276	27	195
416	Enhanced Nitrate-to-Ammonia Activity on Copper-Nickel Alloys via Tuning of Intermediate Adsorption. <i>Journal of the American Chemical Society</i> , 2020 , 142, 5702-5708	16.4	192
415	Fast and Sensitive Solution-Processed Visible-Blind Perovskite UV Photodetectors. <i>Advanced Materials</i> , 2016 , 28, 7264-8	24	192
414	Photovoltaic concepts inspired by coherence effects in photosynthetic systems. <i>Nature Materials</i> , 2016 , 16, 35-44	27	191
413	Chiral-perovskite optoelectronics. <i>Nature Reviews Materials</i> , 2020 , 5, 423-439	73.3	191
412	Metal-Organic Frameworks Mediate Cu Coordination for Selective CO Electroreduction. <i>Journal of the American Chemical Society</i> , 2018 , 140, 11378-11386	16.4	188
411	Engineering colloidal quantum dot solids within and beyond the mobility-invariant regime. <i>Nature Communications</i> , 2014 , 5, 3803	17.4	188
410	Tunable Cu Enrichment Enables Designer Syngas Electrosynthesis from CO. <i>Journal of the American Chemical Society</i> , 2017 , 139, 9359-9363	16.4	183

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409	Binding Site Diversity Promotes CO Electroreduction to Ethanol. <i>Journal of the American Chemical Society</i> , 2019 , 141, 8584-8591	16.4	178	
408	High-Efficiency Colloidal Quantum Dot Photovoltaics via Robust Self-Assembled Monolayers. <i>Nano Letters</i> , 2015 , 15, 7691-6	11.5	175	
407	Dipolar cations confer defect tolerance in wide-bandgap metal halide perovskites. <i>Nature Communications</i> , 2018 , 9, 3100	17.4	171	
406	Regulating strain in perovskite thin films through charge-transport layers. <i>Nature Communications</i> , 2020 , 11, 1514	17.4	165	
405	Facet-Dependent Selectivity of Cu Catalysts in Electrochemical CO Reduction at Commercially Viable Current Densities. <i>ACS Catalysis</i> , 2020 , 10, 4854-4862	13.1	164	
404	Cooperative CO2-to-ethanol conversion via enriched intermediates at moleculefhetal catalyst interfaces. <i>Nature Catalysis</i> , 2020 , 3, 75-82	36.5	164	
403	Copper-on-nitride enhances the stable electrosynthesis of multi-carbon products from CO. <i>Nature Communications</i> , 2018 , 9, 3828	17.4	164	
402	Efficient electrically powered CO2-to-ethanol via suppression of deoxygenation. <i>Nature Energy</i> , 2020 , 5, 478-486	62.3	163	
401	Measuring charge carrier diffusion in coupled colloidal quantum dot solids. ACS Nano, 2013, 7, 5282-90	16.7	163	
400	Highly Efficient Visible Colloidal Lead-Halide Perovskite Nanocrystal Light-Emitting Diodes. <i>Nano Letters</i> , 2018 , 18, 3157-3164	11.5	160	
399	Catalyst synthesis under CO2 electroreduction favours faceting and promotes renewable fuels electrosynthesis. <i>Nature Catalysis</i> , 2020 , 3, 98-106	36.5	158	
398	Pure Cubic-Phase Hybrid Iodobismuthates AgBi2 I7 for Thin-Film Photovoltaics. <i>Angewandte Chemie - International Edition</i> , 2016 , 55, 9586-90	16.4	156	
397	Continuous Carbon Dioxide Electroreduction to Concentrated Multi-carbon Products Using a Membrane Electrode Assembly. <i>Joule</i> , 2019 , 3, 2777-2791	27.8	155	
396	Colloidal Quantum Dot Photovoltaics Enhanced by Perovskite Shelling. <i>Nano Letters</i> , 2015 , 15, 7539-43	11.5	155	
395	The In-Gap Electronic State Spectrum of Methylammonium Lead Iodide Single-Crystal Perovskites. <i>Advanced Materials</i> , 2016 , 28, 3406-10	24	151	
394	Lattice anchoring stabilizes solution-processed semiconductors. <i>Nature</i> , 2019 , 570, 96-101	50.4	149	
393	Tracking the dynamics of circulating tumour cell phenotypes using nanoparticle-mediated magnetic ranking. <i>Nature Nanotechnology</i> , 2017 , 12, 274-281	28.7	149	
392	High-valence metals improve oxygen evolution reaction performance by modulating 3d metal oxidation cycle energetics. <i>Nature Catalysis</i> , 2020 , 3, 985-992	36.5	149	

391	Combined high alkalinity and pressurization enable efficient CO2 electroreduction to CO. <i>Energy and Environmental Science</i> , 2018 , 11, 2531-2539	35.4	147
390	Photovoltage field-effect transistors. <i>Nature</i> , 2017 , 542, 324-327	50.4	144
389	Bright high-colour-purity deep-blue carbon dot light-emitting diodes via efficient edge amination. <i>Nature Photonics</i> , 2020 , 14, 171-176	33.9	144
388	Efficient Biexciton Interaction in Perovskite Quantum Dots Under Weak and Strong Confinement. <i>ACS Nano</i> , 2016 , 10, 8603-9	16.7	142
387	Photon management for augmented photosynthesis. <i>Nature Communications</i> , 2016 , 7, 12699	17.4	142
386	Graphdiyne: An Efficient Hole Transporter for Stable High-Performance Colloidal Quantum Dot Solar Cells. <i>Advanced Functional Materials</i> , 2016 , 26, 5284-5289	15.6	140
385	Semiconductor quantum dots: Technological progress and future challenges. <i>Science</i> , 2021 , 373,	33.3	138
384	High Rate, Selective, and Stable Electroreduction of CO2 to CO in Basic and Neutral Media. <i>ACS Energy Letters</i> , 2018 , 3, 2835-2840	20.1	136
383	A Surface Reconstruction Route to High Productivity and Selectivity in CO Electroreduction toward C Hydrocarbons. <i>Advanced Materials</i> , 2018 , 30, e1804867	24	131
382	Structural, optical, and electronic studies of wide-bandgap lead halide perovskites. <i>Journal of Materials Chemistry C</i> , 2015 , 3, 8839-8843	7.1	129
381	Profiling circulating tumour cells and other biomarkers of invasive cancers. <i>Nature Biomedical Engineering</i> , 2018 , 2, 72-84	19	128
380	Hybrid membrane/cryogenic separation of oxygen from air for use in the oxy-fuel process. <i>Energy</i> , 2010 , 35, 1884-1897	7.9	128
379	High-Density Nanosharp Microstructures Enable Efficient CO Electroreduction. <i>Nano Letters</i> , 2016 , 16, 7224-7228	11.5	126
378	Photoconductivity from PbS-nanocrystalBemiconducting polymer composites for solution-processible, quantum-size tunableinfrared photodetectors. <i>Applied Physics Letters</i> , 2004 , 85, 2089-2091	3.4	125
377	2D Metal Oxyhalide-Derived Catalysts for Efficient CO Electroreduction. <i>Advanced Materials</i> , 2018 , 30, e1802858	24	123
376	Reducing Defects in Halide Perovskite Nanocrystals for Light-Emitting Applications. <i>Journal of Physical Chemistry Letters</i> , 2019 , 10, 2629-2640	6.4	122
375	Engineering of CH3 NH3 PbI3 Perovskite Crystals by Alloying Large Organic Cations for Enhanced Thermal Stability and Transport Properties. <i>Angewandte Chemie - International Edition</i> , 2016 , 55, 10686-	.96.4	121
374	CO electrolysis to multicarbon products in strong acid. <i>Science</i> , 2021 , 372, 1074-1078	33.3	115

(2013-2020)

373	Enhanced optical path and electron diffusion length enable high-efficiency perovskite tandems. <i>Nature Communications</i> , 2020 , 11, 1257	17.4	114
372	Mixed-quantum-dot solar cells. <i>Nature Communications</i> , 2017 , 8, 1325	17.4	113
371	In Situ Back-Contact Passivation Improves Photovoltage and Fill Factor in Perovskite Solar Cells. <i>Advanced Materials</i> , 2019 , 31, e1807435	24	112
370	All-perovskite tandem solar cells with improved grain surface passivation <i>Nature</i> , 2022 ,	50.4	112
369	Efficient electrocatalytic conversion of carbon monoxide to propanol using fragmented copper. <i>Nature Catalysis</i> , 2019 , 2, 251-258	36.5	111
368	Cascade surface modification of colloidal quantum dot inks enables efficient bulk homojunction photovoltaics. <i>Nature Communications</i> , 2020 , 11, 103	17.4	110
367	Interrogating Circulating Microsomes and Exosomes Using Metal Nanoparticles. <i>Small</i> , 2016 , 12, 727-32	11	107
366	Chemically Addressable Perovskite Nanocrystals for Light-Emitting Applications. <i>Advanced Materials</i> , 2017 , 29, 1701153	24	106
365	Solution-Processed Quantum Dot Photodetectors. <i>Proceedings of the IEEE</i> , 2009 , 97, 1666-1683	14.3	105
364	Bifunctional Surface Engineering on SnO2 Reduces Energy Loss in Perovskite Solar Cells. <i>ACS Energy Letters</i> , 2020 , 5, 2796-2801	20.1	104
363	Record Charge Carrier Diffusion Length in Colloidal Quantum Dot Solids via Mutual Dot-To-Dot Surface Passivation. <i>Advanced Materials</i> , 2015 , 27, 3325-30	24	103
362	The Electrical and Optical Properties of Organometal Halide Perovskites Relevant to Optoelectronic Performance. <i>Advanced Materials</i> , 2018 , 30, 1700764	24	101
361	Chlorine Vacancy Passivation in Mixed Halide Perovskite Quantum Dots by Organic Pseudohalides Enables Efficient Rec. 2020 Blue Light-Emitting Diodes. <i>ACS Energy Letters</i> , 2020 , 5, 793-798	20.1	100
360	Hydronium-Induced Switching between CO Electroreduction Pathways. <i>Journal of the American Chemical Society</i> , 2018 , 140, 3833-3837	16.4	100
359	Double-Sided Junctions Enable High-Performance Colloidal-Quantum-Dot Photovoltaics. <i>Advanced Materials</i> , 2016 , 28, 4142-8	24	100
358	Colloidal CdSe(1-x)S(x) Nanoplatelets with Narrow and Continuously-Tunable Electroluminescence. <i>Nano Letters</i> , 2015 , 15, 4611-5	11.5	100
357	Chloride Passivation of ZnO Electrodes Improves Charge Extraction in Colloidal Quantum Dot Photovoltaics. <i>Advanced Materials</i> , 2017 , 29, 1702350	24	97
356	Interface Recombination in Depleted Heterojunction Photovoltaics based on Colloidal Quantum Dots. <i>Advanced Energy Materials</i> , 2013 , 3, 917-922	21.8	97

355	Introductory Guide to Assembling and Operating Gas Diffusion Electrodes for Electrochemical CO Reduction. <i>ACS Energy Letters</i> , 2019 , 4, 639-643	20.1	95
354	Dynamic Trap Formation and Elimination in Colloidal Quantum Dots. <i>Journal of Physical Chemistry Letters</i> , 2013 , 4, 987-92	6.4	95
353	Hydroxide promotes carbon dioxide electroreduction to ethanol on copper via tuning of adsorbed hydrogen. <i>Nature Communications</i> , 2019 , 10, 5814	17.4	95
352	Crosslinked Remote-Doped Hole-Extracting Contacts Enhance Stability under Accelerated Lifetime Testing in Perovskite Solar Cells. <i>Advanced Materials</i> , 2016 , 28, 2807-15	24	94
351	Combining Efficiency and Stability in Mixed Tin-Lead Perovskite Solar Cells by Capping Grains with an Ultrathin 2D Layer. <i>Advanced Materials</i> , 2020 , 32, e1907058	24	92
350	Microsecond-sustained lasing from colloidal quantum dot solids. <i>Nature Communications</i> , 2015 , 6, 8694	17.4	91
349	Efficient near-infrared light-emitting diodes based on quantum dots in layered perovskite. <i>Nature Photonics</i> , 2020 , 14, 227-233	33.9	91
348	Pathways to Industrial-Scale Fuel Out of Thin Air from CO2 Electrolysis. <i>Joule</i> , 2019 , 3, 1822-1834	27.8	90
347	Suppressed Ion Migration in Reduced-Dimensional Perovskites Improves Operating Stability. <i>ACS Energy Letters</i> , 2019 , 4, 1521-1527	20.1	89
346	Constraining CO coverage on copper promotes high-efficiency ethylene electroproduction. <i>Nature Catalysis</i> , 2019 , 2, 1124-1131	36.5	89
345	One-Step Synthesis of SnI[(DMSO) Adducts for High-Performance Tin Perovskite Solar Cells. <i>Journal of the American Chemical Society</i> , 2021 , 143, 10970-10976	16.4	89
344	High-Throughput Screening of Lead-Free Perovskite-like Materials for Optoelectronic Applications. Journal of Physical Chemistry C, 2017 , 121, 7183-7187	3.8	87
343	Ultrafast narrowband exciton routing within layered perovskite nanoplatelets enables low-loss luminescent solar concentrators. <i>Nature Energy</i> , 2019 , 4, 197-205	62.3	87
342	Directly deposited quantum dot solids using a colloidally stable nanoparticle ink. <i>Advanced Materials</i> , 2013 , 25, 5742-9	24	87
341	Copper adparticle enabled selective electrosynthesis of n-propanol. <i>Nature Communications</i> , 2018 , 9, 4614	17.4	86
340	Monolayer Perovskite Bridges Enable Strong Quantum Dot Coupling for Efficient Solar Cells. <i>Joule</i> , 2020 , 4, 1542-1556	27.8	85
339	High Color Purity Lead-Free Perovskite Light-Emitting Diodes via Sn Stabilization. <i>Advanced Science</i> , 2020 , 7, 1903213	13.6	85
338	Efficient and Stable Inverted Perovskite Solar Cells Incorporating Secondary Amines. <i>Advanced Materials</i> , 2019 , 31, e1903559	24	85

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337	Engineering charge transport by heterostructuring solution-processed semiconductors. <i>Nature Reviews Materials</i> , 2017 , 2,	73.3	84	
336	Nanomorphology-Enhanced Gas-Evolution Intensifies CO2 Reduction Electrochemistry. <i>ACS Sustainable Chemistry and Engineering</i> , 2017 , 5, 4031-4040	8.3	84	
335	Mobile-Ion-Induced Degradation of Organic Hole-Selective Layers in Perovskite Solar Cells. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 14517-14523	3.8	83	
334	Distribution control enables efficient reduced-dimensional perovskite LEDs. <i>Nature</i> , 2021 , 599, 594-598	3 50.4	81	
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	Stable, active CO reduction to formate via redox-modulated stabilization of active sites. <i>Nature</i>		25
183	Stable, active CO reduction to formate via redox-modulated stabilization of active sites. <i>Nature Communications</i> , 2021 , 12, 5223 Electro-optic Response in Germanium Halide Perovskites. <i>Journal of Physical Chemistry Letters</i> ,	17.4	25
183	Stable, active CO reduction to formate via redox-modulated stabilization of active sites. <i>Nature Communications</i> , 2021 , 12, 5223 Electro-optic Response in Germanium Halide Perovskites. <i>Journal of Physical Chemistry Letters</i> , 2018 , 9, 1018-1027 Fractal circuit sensors enable rapid quantification of biomarkers for donor lung assessment for	17.4 6.4	25
183 182 181	Stable, active CO reduction to formate via redox-modulated stabilization of active sites. <i>Nature Communications</i> , 2021 , 12, 5223 Electro-optic Response in Germanium Halide Perovskites. <i>Journal of Physical Chemistry Letters</i> , 2018 , 9, 1018-1027 Fractal circuit sensors enable rapid quantification of biomarkers for donor lung assessment for transplantation. <i>Science Advances</i> , 2015 , 1, e1500417 Third-order optical nonlinearity and figure of merit of CdS nanocrystals chemically stabilized in	17.4 6.4 14.3	25 24 24
183 182 181	Stable, active CO reduction to formate via redox-modulated stabilization of active sites. <i>Nature Communications</i> , 2021 , 12, 5223 Electro-optic Response in Germanium Halide Perovskites. <i>Journal of Physical Chemistry Letters</i> , 2018 , 9, 1018-1027 Fractal circuit sensors enable rapid quantification of biomarkers for donor lung assessment for transplantation. <i>Science Advances</i> , 2015 , 1, e1500417 Third-order optical nonlinearity and figure of merit of CdS nanocrystals chemically stabilized in spin-processable polymeric films. <i>Journal of Materials Science</i> , 2004 , 39, 993-996 Electronic properties of semiconducting poly(ferrocenylsilane) thin films with vapor-phase iodine	17.4 6.4 14.3	25 24 24 24
183 182 181 180	Stable, active CO reduction to formate via redox-modulated stabilization of active sites. <i>Nature Communications</i> , 2021 , 12, 5223 Electro-optic Response in Germanium Halide Perovskites. <i>Journal of Physical Chemistry Letters</i> , 2018 , 9, 1018-1027 Fractal circuit sensors enable rapid quantification of biomarkers for donor lung assessment for transplantation. <i>Science Advances</i> , 2015 , 1, e1500417 Third-order optical nonlinearity and figure of merit of CdS nanocrystals chemically stabilized in spin-processable polymeric films. <i>Journal of Materials Science</i> , 2004 , 39, 993-996 Electronic properties of semiconducting poly(ferrocenylsilane) thin films with vapor-phase iodine diffusion doping. <i>Journal of Materials Science: Materials in Electronics</i> , 2001 , 12, 21-25 Multication perovskite 2D/3D interfaces form via progressive dimensional reduction. <i>Nature</i>	17.4 6.4 14.3 4.3	25 24 24 24

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16	Recombination Dynamics in PbS Nanocrystal Quantum Dot Solar Cells Studied through Drift D iffusion Simulations. <i>ACS Applied Electronic Materials</i> ,	4	1
15	Solvent-Assisted Kinetic Trapping in Quaternary Perovskites. <i>Advanced Materials</i> , 2021 , 33, e2008690	24	1
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13	Vapor-Phase Deposition of Highly Luminescent Embedded Perovskite Nanocrystals. <i>Advanced Optical Materials</i> ,2102809	8.1	1
12	Rapid On-Cell Selection of High-Performance Human Antibodies ACS Central Science, 2022, 8, 102-109	16.8	1
11	A microfluidic platform enables comprehensive gene expression profiling of mouse retinal stem cells. <i>Lab on A Chip</i> , 2021 , 21, 4464-4476	7.2	0
10	Thiophene- and selenophene-based conjugated polymeric mixed ionic/electronic conductors. <i>Journal of Chemical Physics</i> , 2021 , 155, 134704	3.9	0
9	Dopant-Assisted Matrix Stabilization Enables Thermoelectric Performance Enhancement in n-Type Quantum Dot Films. <i>ACS Applied Materials & Dopanty Communication Stabilization Enables Thermoelectric Performance Enhancement in n-Type Quantum Dot Films. ACS Applied Materials & Dopanty Communication (No. 1) (1997)</i>	9.5	0
8	Nanoparticle Amplification Labeling for High-Performance Magnetic Cell Sorting. <i>Nano Letters</i> ,	11.5	0
7	Single-Layer Sheets of Alkylammonium Lead Iodide Perovskites with Tunable and Stable Green Emission for White Light-Emitting Devices. <i>Advanced Optical Materials</i> ,2200217	8.1	О
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