Maksym Kovalenko

List of Publications by Year in Descending Order

330 papers	36,988 citations	81 h-index	188 g-index
397 ext. papers	43,496 ext. citations	12.2 avg, IF	7.88 L-index

#	Paper	IF	Citations
330	Perspective on design and technical challenges of Li-garnet solid-state batteries.. *Science and Technology of Advanced Materials*, **2022**, 23, 2018919	7.1	2
329	Size Segregation and Atomic Structural Coherence in Spontaneous Assemblies of Colloidal Cesium Lead Halide Nanocrystals. *Chemistry of Materials*, **2022**, 34, 594-608	9.6	3
328	On the feasibility of all-solid-state batteries with LLZO as a single electrolyte.. *Scientific Reports*, **2022**, 12, 1177	4.9	4
327	Seed crystal induced cold sintering toward metal halide transparent ceramic scintillators.. *Advanced Materials*, **2022**, e2110420	24	15
326	Three Millennia of Nanocrystals.. *ACS Nano*, **2022**,	16.7	8
325	Structural Diversity in Multicomponent Nanocrystal Superlattices Comprising Lead Halide Perovskite Nanocubes.. *ACS Nano*, **2022**,	16.7	4
324	Silicon oxycarbide-tin nanocomposite derived from a UV crosslinked single source preceramic precursor as high-performance anode materials for Li-ion batteries. *Applied Materials Today*, **2022**, 27, 101424	6.6	0
323	Atomic-Level Description of Thermal Fluctuations in Inorganic Lead Halide Perovskites.. *Journal of Physical Chemistry Letters*, **2022**, 3382-3391	6.4	2
322	Reconfigurable halide perovskite nanocrystal memristors for neuromorphic computing.. *Nature Communications*, **2022**, 13, 2074	17.4	15
321	Ultra-narrow room-temperature emission from single CsPbBr perovskite quantum dots.. *Nature Communications*, **2022**, 13, 2587	17.4	8
320	Highly Concentrated, Zwitterionic Ligand-Capped Mn:CsPb(Br Cl) Nanocrystals as Bright Scintillators for Fast Neutron Imaging.. *ACS Energy Letters*, **2021**, 6, 4365-4373	20.1	10
319	Scalable fabrication of efficient p-n junction lead sulfide quantum dot solar cells. *Cell Reports Physical Science*, **2021**, 100655	6.1	2
318	To nano or not to nano for bright halide perovskite emitters. *Nature Nanotechnology*, **2021**, 16, 1164-1168	38.7	8
317	Luminescent Lead Halide Ionic Liquids for High-Spatial-Resolution Fast Neutron Imaging. *ACS Photonics*, **2021**, 8, 3357-3364	6.3	1
316	Optical Probing of Crystal Lattice Configurations in Single CsPbBr Nanoplatelets. *Nano Letters*, **2021**, 21, 9085-9092	11.5	5
315	Lead-Dominated Hyperfine Interaction Impacting the Carrier Spin Dynamics in Halide Perovskites. *Advanced Materials*, **2021**, 34, e2105263	24	6
314	Unraveling the shell growth pathways of Pd-Pt core-shell nanocubes at atomic level by in situ liquid cell electron microscopy. *Applied Physics Reviews*, **2021**, 8, 041407	17.3	1

313	Monodisperse Long-Chain Sulfobetaine-Capped CsPbBr Nanocrystals and Their Superfluorescent Assemblies. *ACS Central Science*, **2021**, 7, 135-144	16.8	22
312	Lone-Pair-Induced Structural Ordering in the Mixed-Valent 0D Metal-Halides RbBi Sb Sb Cl (0). *Chemistry of Materials*, **2021**, 33, 2408-2419	9.6	2
311	Light-Induced Paramagnetism in Colloidal Ag-Doped CdSe Nanoplatelets. *Journal of Physical Chemistry Letters*, **2021**, 12, 2892-2899	6.4	9
310	Perovskite-type superlattices from lead halide perovskite nanocubes. *Nature*, **2021**, 593, 535-542	50.4	49
309	Break-Even Analysis of All-Solid-State Batteries with Li-Garnet Solid Electrolytes. *ACS Energy Letters* , **2021**, 6, 2202-2207	20.1	11
308	Surface Functionalization of CsPbBr3 nocrystals for Photonic Applications. *ACS Applied Nano Materials*, **2021**, 4, 5084-5097	5.6	8
307	State of the Art and Prospects for Halide Perovskite Nanocrystals. *ACS Nano*, **2021**, 15, 10775-10981	16.7	222
306	Perovskite Quantum Dots for Super-Resolution Optical Microscopy: Where Strong Photoluminescence Blinking Matters. *Advanced Optical Materials*, **2021**, 9, 2100620	8.1	3
305	Quantifying Photoinduced Polaronic Distortions in Inorganic Lead Halide Perovskite Nanocrystals. *Journal of the American Chemical Society*, **2021**, 143, 9048-9059	16.4	11
304	On the Mechanism of Alkylammonium Ligands Binding to the Surface of CsPbBr Nanocrystals. *Chemistry of Materials*, **2021**, 33, 5962-5973	9.6	10
303	An overview and prospective on Al and Al-ion battery technologies. *Journal of Power Sources*, **2021**, 481, 228870	8.9	36
302	Expanding the 0D Rb7M3X16 (M=Sb, Bi; X=Br, I) Family: Dual-Band Luminescence in Rb7Sb3Br16. *Helvetica Chimica Acta*, **2021**, 104, e2000206	2	4
301	S-Rich PbS Quantum Dots: A Promising p-Type Material for Optoelectronic Devices. *Chemistry of Materials*, **2021**, 33, 320-326	9.6	5
300	Temperature-Dependent Charge Carrier Transfer in Colloidal Quantum Dot/Graphene Infrared Photodetectors. *ACS Applied Materials & Interfaces*, **2021**, 13, 848-856	9.5	5
299	Laser Patterning of High-Mass-Loading Graphite Anodes for High-Performance Li-Ion Batteries. *Batteries and Supercaps*, **2021**, 4, 464-468	5.6	5
298	Enhanced Room-Temperature Photoluminescence Quantum Yield in Morphology Controlled J-Aggregates. *Advanced Science*, **2021**, 8, 1903080	13.6	8
297	Exploiting the Lability of Metal Halide Perovskites for Doping Semiconductor Nanocomposites. *ACS Energy Letters*, **2021**, 6, 581-587	20.1	6
296	Pressure-Induced Perovskite-to-non-Perovskite Phase Transition in CsPbBr3. *Helvetica Chimica Acta* , **2021**, 104, e2000222	2	3

295	AlCl3-Saturated Ionic Liquid Anolyte with an Excess of AlCl3 for Al□Graphite Dual-Ion Batteries. *Batteries and Supercaps*, **2021**, 4, 929-933	5.6	1
294	Radiative lifetime-encoded unicolour security tags using perovskite nanocrystals. *Nature Communications*, **2021**, 12, 981	17.4	19
293	Colloidal HgTe Quantum Dot/Graphene Phototransistor with a Spectral Sensitivity Beyond 3□μm. *Advanced Science*, **2021**, 8, 2003360	13.6	17
292	Efficient Amplified Spontaneous Emission from Solution-Processed CsPbBr3 Nanocrystal Microcavities under Continuous Wave Excitation. *ACS Photonics*, **2021**, 8, 2120-2129	6.3	8
291	Temperature-Independent Dielectric Constant in CsPbBr Nanocrystals Revealed by Linear Absorption Spectroscopy. *Journal of Physical Chemistry Letters*, **2021**, 12, 8088-8095	6.4	3
290	Local Structure of Multinary Hybrid Lead Halide Perovskites Investigated by Nuclear Quadrupole Resonance Spectroscopy. *Chemistry of Materials*, **2021**, 33, 6965-6973	9.6	3
289	Perovskite Quantum Dots for Super-Resolution Optical Microscopy: Where Strong Photoluminescence Blinking Matters (Advanced Optical Materials 18/2021). *Advanced Optical Materials*, **2021**, 9, 2170073	8.1	
288	Shape-Directed Co-Assembly of Lead Halide Perovskite Nanocubes with Dielectric Nanodisks into Binary Nanocrystal Superlattices. *ACS Nano*, **2021**, 15, 16488-16500	16.7	6
287	Scalable PbS Quantum Dot Solar Cell Production by Blade Coating from Stable Inks. *ACS Applied Materials & Interfaces*, **2021**, 13, 5195-5207	9.5	25
286	Hybrid 0D Antimony Halides as Air-Stable Luminophores for High-Spatial-Resolution Remote Thermography. *Advanced Materials*, **2021**, 33, e2007355	24	35
285	Exciton□ligand Interactions in PbS Quantum Dots Capped with Metal Chalcogenides. *Journal of Physical Chemistry C*, **2020**, 124, 27848-27857	3.8	3
284	Lead-Halide Scalar Couplings in Pb NMR of APbX Perovskites (A = Cs, Methylammonium, Formamidinium; X = Cl, Br, I). *Scientific Reports*, **2020**, 10, 8229	4.9	39
283	Evidence of Large Polarons in Photoemission Band Mapping of the Perovskite Semiconductor CsPbBr_{3}. *Physical Review Letters*, **2020**, 124, 206402	7.4	36
282	The Rb7Bi3□xSb3xCl16 Family: A Fully Inorganic Solid Solution with Room-Temperature Luminescent Members. *Angewandte Chemie*, **2020**, 132, 14598-14605	3.6	3
281	The Rb Bi Sb Cl Family: A Fully Inorganic Solid Solution with Room-Temperature Luminescent Members. *Angewandte Chemie - International Edition*, **2020**, 59, 14490-14497	16.4	30
280	White CsPbBr3: Characterizing the One-Dimensional Cesium Lead Bromide Polymorph. *Helvetica Chimica Acta*, **2020**, 103, e2000080	2	9
279	Nano-domains assisted energy transfer in amphiphilic polymer conetworks for wearable luminescent solar concentrators. *Nano Energy*, **2020**, 76, 105039	17.1	20
278	Supramolecular Approach for Fine-Tuning of the Bright Luminescence from Zero-Dimensional Antimony(III) Halides **2020**, 2, 845-852		38

277	Bright Blue and Green Luminescence of Sb(III) in Double Perovskite CsMInCl (M = Na, K) Matrices. *Chemistry of Materials*, **2020**, 32, 5118-5124	9.6	80
276	Silicon oxycarbide-antimony nanocomposites for high-performance Li-ion battery anodes. *Nanoscale*, **2020**, 12, 13540-13547	7.7	11
275	Memories in the photoluminescence intermittency of single cesium lead bromide nanocrystals. *Nanoscale*, **2020**, 12, 6795-6802	7.7	11
274	Hot Carrier Dynamics in Perovskite Nanocrystal Solids: Role of the Cold Carriers, Nanoconfinement, and the Surface. *Nano Letters*, **2020**, 20, 2271-2278	11.5	24
273	CsPbBr3 Nanocrystal Films: Deviations from Bulk Vibrational and Optoelectronic Properties. *Advanced Functional Materials*, **2020**, 30, 1909904	15.6	17
272	Negative Thermal Quenching in FASnI3 Perovskite Single Crystals and Thin Films. *ACS Energy Letters*, **2020**, 5, 2512-2519	20.1	31
271	Bulk and Nanocrystalline Cesium Lead-Halide Perovskites as Seen by Halide Magnetic Resonance. *ACS Central Science*, **2020**, 6, 1138-1149	16.8	24
270	InGaN Nanohole Arrays Coated by Lead Halide Perovskite Nanocrystals for Solid-State Lighting. *ACS Applied Nano Materials*, **2020**, 3, 2167-2175	5.6	2
269	Vibrational dynamics in lead halide hybrid perovskites investigated by Raman spectroscopy. *Physical Chemistry Chemical Physics*, **2020**, 22, 5604-5614	3.6	21
268	Exclusive Electron Transport in Core@Shell PbTe@PbS Colloidal Semiconductor Nanocrystal Assemblies. *ACS Nano*, **2020**, 14, 3242-3250	16.7	11
267	Colloidal Antimony Sulfide Nanoparticles as a High-Performance Anode Material for Li-ion and Na-ion Batteries. *Scientific Reports*, **2020**, 10, 2554	4.9	16
266	Colloidal-ALD-Grown Core/Shell CdSe/CdS Nanoplatelets as Seen by DNP Enhanced PASS-PIETA NMR Spectroscopy. *Nano Letters*, **2020**, 20, 3003-3018	11.5	16
265	Challenges and benefits of post-lithium-ion batteries. *New Journal of Chemistry*, **2020**, 44, 1677-1683	3.6	66
264	Structural Evolution of Iron(III) Trifluoroacetate upon Thermal Decomposition: Chains, Layers, and Rings. *Chemistry of Materials*, **2020**, 32, 2482-2488	9.6	3
263	Limitations of Chloroaluminate Ionic Liquid Anolytes for Aluminum□Graphite Dual-Ion Batteries. *ACS Energy Letters*, **2020**, 5, 545-549	20.1	26
262	Stable Cesium Formamidinium Lead Halide Perovskites: A Comparison of Photophysics and Phase Purity in Thin Films and Single Crystals. *Energy Technology*, **2020**, 8, 1901041	3.5	11
261	Self-Assembly of Proteinaceous Shells around Positively Charged Gold Nanomaterials Enhances Colloidal Stability in High-Ionic-Strength Buffers. *ChemBioChem*, **2020**, 21, 74-79	3.8	6
260	Improved Reproducibility of PbS Colloidal Quantum Dots Solar Cells Using Atomic Layer-Deposited TiO. *Energy Technology*, **2020**, 8, 1900887	3.5	5

259	A Small Cationic Organo-Copper Cluster as Thermally Robust Highly Photo- and Electroluminescent Material. *Journal of the American Chemical Society*, **2020**, 142, 373-381	16.4	41
258	Tracking the Fluorescence Lifetimes of Cesium Lead Halide Perovskite Nanocrystals During Their Synthesis Using a Fully Automated Optofluidic Platform. *Chemistry of Materials*, **2020**, 32, 27-37	9.6	27
257	Solid-State NMR and NQR Spectroscopy of Lead-Halide Perovskite Materials. *Journal of the American Chemical Society*, **2020**, 142, 19413-19437	16.4	47
256	Polaron and Spin Dynamics in Organic–Inorganic Lead Halide Perovskite Nanocrystals. *Advanced Optical Materials*, **2020**, 8, 2001016	8.1	7
255	The Pitfalls in Nonaqueous Electrochemistry of Al-Ion and Al Dual-Ion Batteries. *Advanced Energy Materials*, **2020**, 10, 2002151	21.8	25
254	Electrophoretic Deposition of Nanoporous Oxide Coatings from Concentrated CuO Nanoparticle Dispersions. *Langmuir*, **2020**, 36, 8075-8085	4	5
253	The dark exciton ground state promotes photon-pair emission in individual perovskite nanocrystals. *Nature Communications*, **2020**, 11, 6001	17.4	27
252	Unraveling the Origin of the Long Fluorescence Decay Component of Cesium Lead Halide Perovskite Nanocrystals. *ACS Nano*, **2020**, 14, 14939-14946	16.7	8
251	On the Colloidal Stability of PbS Quantum Dots Capped with Methylammonium Lead Iodide Ligands. *ACS Applied Materials & Interfaces*, **2020**, 12, 52959-52966	9.5	7
250	Kinetic modelling of intraband carrier relaxation in bulk and nanocrystalline lead-halide perovskites. *Physical Chemistry Chemical Physics*, **2020**, 22, 17605-17611	3.6	4
249	Efficient Lone-Pair-Driven Luminescence: Structure-Property Relationships in Emissive 5s Metal Halides **2020**, 2, 1218-1232		83
248	Electron transport in iodide-capped core@shell PbTe@PbS colloidal nanocrystal solids. *Applied Physics Letters*, **2020**, 117, 173101	3.4	2
247	Monodisperse CoSb nanocrystals as high-performance anode material for Li-ion batteries. *Chemical Communications*, **2020**, 56, 13872-13875	5.8	1
246	Building better dual-ion batteries. *MRS Energy & Sustainability*, **2020**, 7, 1	2.2	2
245	Aluminum electrolytes for Al dual-ion batteries. *Communications Chemistry*, **2020**, 3,	6.3	20
244	Fast Neutron Imaging with Semiconductor Nanocrystal Scintillators. *ACS Nano*, **2020**, 14, 14686-14697	16.7	12
243	Hybrid Metal Halides with Multiple Photoluminescence Centers. *Angewandte Chemie*, **2019**, 131, 18843-18848	3.6	21
242	Cost-effective sol-gel synthesis of porous CuO nanoparticle aggregates with tunable specific surface area. *Scientific Reports*, **2019**, 9, 11758	4.9	33

241	Building better all-solid-state batteries with Li-garnet solid electrolytes and metalloid anodes. *Journal of Materials Chemistry A*, **2019**, 7, 21299-21308	13	29
240	Anatase TiO2 Nanorods as Cathode Materials for Aluminum-Ion Batteries. *ACS Applied Nano Materials*, **2019**, 2, 6428-6435	5.6	29
239	Setting an Upper Bound to the Biexciton Binding Energy in CsPbBr Perovskite Nanocrystals. *Journal of Physical Chemistry Letters*, **2019**, 10, 5680-5686	6.4	19
238	Microcarrier-Assisted Inorganic Shelling of Lead Halide Perovskite Nanocrystals. *ACS Nano*, **2019**, 13, 11642-11652	16.7	26
237	Zeolite-Templated Carbon as a Stable, High Power Magnesium-Ion Cathode Material. *ACS Applied Materials & Interfaces*, **2019**, 11, 39902-39909	9.5	13
236	Highly Stable, Near-Unity Efficiency Atomically Flat Semiconductor Nanocrystals of CdSe/ZnS Hetero-Nanoplatelets Enabled by ZnS-Shell Hot-Injection Growth. *Small*, **2019**, 15, e1804854	11	49
235	Tunability and Scalability of Single-Atom Catalysts Based on Carbon Nitride. *ACS Sustainable Chemistry and Engineering*, **2019**, 7, 5223-5230	8.3	17
234	Underestimated Effect of a Polymer Matrix on the Light Emission of Single CsPbBr Nanocrystals. *Nano Letters*, **2019**, 19, 3648-3653	11.5	56
233	Disphenoidal Zero-Dimensional Lead, Tin, and Germanium Halides: Highly Emissive Singlet and Triplet Self-Trapped Excitons and X-ray Scintillation. *Journal of the American Chemical Society*, **2019**, 141, 9764-9768	16.4	186
232	Tuning Transport Properties in Thermoelectric Nanocomposites through Inorganic Ligands and Heterostructured Building Blocks. *ACS Nano*, **2019**, 13, 6572-6580	16.7	17
231	Copper sulfide nanoparticles as high-performance cathode materials for Mg-ion batteries. *Scientific Reports*, **2019**, 9, 7988	4.9	42
230	Engineering Color-Stable Blue Light-Emitting Diodes with Lead Halide Perovskite Nanocrystals. *ACS Applied Materials & Interfaces*, **2019**, 11, 21655-21660	9.5	70
229	Unraveling the Radiative Pathways of Hot Carriers upon Intense Photoexcitation of Lead Halide Perovskite Nanocrystals. *ACS Nano*, **2019**, 13, 5799-5809	16.7	10
228	The ground exciton state of formamidinium lead bromide perovskite nanocrystals is a singlet dark state. *Nature Materials*, **2019**, 18, 717-724	27	131
227	Transition metal trifluoroacetates (M = Fe, Co, Mn) as precursors for uniform colloidal metal difluoride and phosphide nanoparticles. *Scientific Reports*, **2019**, 9, 6613	4.9	6
226	Zeolite-Templated Carbon as the Cathode for a High Energy Density Dual-Ion Battery. *ACS Applied Materials & Interfaces*, **2019**, 11, 17686-17696	9.5	27
225	Ligand-Mediated Band Engineering in Bottom-Up Assembled SnTe Nanocomposites for Thermoelectric Energy Conversion. *Journal of the American Chemical Society*, **2019**, 141, 8025-8029	16.4	28
224	Nanoprinted Quantum Dot□raphene Photodetectors. *Advanced Optical Materials*, **2019**, 7, 1900019	8.1	37

223	Overcoming the High-Voltage Limitations of Li-Ion Batteries Using a Titanium Nitride Current Collector. *ACS Applied Energy Materials*, **2019**, 2, 974-978	6.1	10
222	Coherent spin dynamics of electrons and holes in CsPbBr perovskite crystals. *Nature Communications*, **2019**, 10, 673	17.4	54
221	Robust Hydrophobic and Hydrophilic Polymer Fibers Sensitized by Inorganic and Hybrid Lead Halide Perovskite Nanocrystal Emitters. *Frontiers in Chemistry*, **2019**, 7, 87	5	15
220	Rechargeable Dual-Ion Batteries with Graphite as a Cathode: Key Challenges and Opportunities. *Advanced Energy Materials*, **2019**, 9, 1901749	21.8	75
219	Patterned Quantum Dot Photosensitive FETs for Medium Frequency Optoelectronics. *Advanced Materials Technologies*, **2019**, 4, 1900054	6.8	6
218	A high-voltage concept with sodium-ion conducting □alumina for magnesium-sodium dual-ion batteries. *Communications Chemistry*, **2019**, 2,	6.3	13
217	Silicon Oxycarbide-Tin Nanocomposite as a High-Power-Density Anode for Li-Ion Batteries. *Advanced Science*, **2019**, 6, 1901220	13.6	16
216	High-resolution remote thermometry and thermography using luminescent low-dimensional tin-halide perovskites. *Nature Materials*, **2019**, 18, 846-852	27	149
215	Energy Transfer from Perovskite Nanocrystals to Dye Molecules Does Not Occur by FRET. *Nano Letters*, **2019**, 19, 8896-8902	11.5	11
214	Hybrid Metal Halides with Multiple Photoluminescence Centers. *Angewandte Chemie - International Edition*, **2019**, 58, 18670-18675	16.4	93
213	Direct Synthesis of Quaternary Alkylammonium-Capped Perovskite Nanocrystals for Efficient Blue and Green Light-Emitting Diodes. *ACS Energy Letters*, **2019**, 4, 2703-2711	20.1	89
212	Size-Dependent Biexciton Spectrum in CsPbBr3 Perovskite Nanocrystals. *ACS Energy Letters*, **2019**, 4, 2639-2645	20.1	30
211	Silicon Oxycarbide: Silicon Oxycarbide□Tin Nanocomposite as a High-Power-Density Anode for Li-Ion Batteries (Adv. Sci. 19/2019). *Advanced Science*, **2019**, 6, 1970116	13.6	0
210	Manganese(II) in Tetrahedral Halide Environment: Factors Governing Bright Green Luminescence. *Chemistry of Materials*, **2019**, 31, 10161-10169	9.6	78
209	Exciton Gating and Triplet Deshelving in Single Dye Molecules Excited by Perovskite Nanocrystal FRET Antennae. *Journal of Physical Chemistry Letters*, **2019**, 10, 1055-1062	6.4	10
208	Coherent single-photon emission from colloidal lead halide perovskite quantum dots. *Science*, **2019**, 363, 1068-1072	33.3	218
207	Guanidinium and Mixed Cesium-Guanidinium Tin(II) Bromides: Effects of Quantum Confinement and Out-of-Plane Octahedral Tilting. *Chemistry of Materials*, **2019**, 31, 2121-2129	9.6	18
206	Crystal Structure, Morphology, and Surface Termination of Cyan-Emissive, Six-Monolayers-Thick CsPbBr Nanoplatelets from X-ray Total Scattering. *ACS Nano*, **2019**, 13, 14294-14307	16.7	47

205	Colloidal CdSe Quantum Wells with Graded Shell Composition for Low-Threshold Amplified Spontaneous Emission and Highly Efficient Electroluminescence. *ACS Nano*, **2019**, 13, 13899-13909	16.7	35
204	Stable Ultraconcentrated and Ultradilute Colloids of CsPbX (X = Cl, Br) Nanocrystals Using Natural Lecithin as a Capping Ligand. *Journal of the American Chemical Society*, **2019**, 141, 19839-19849	16.4	71
203	Amplified Spontaneous Emission Threshold Reduction and Operational Stability Improvement in CsPbBr Nanocrystals Films by Hydrophobic Functionalization of the Substrate. *Scientific Reports*, **2019**, 9, 17964	4.9	28
202	Rationalizing and Controlling the Surface Structure and Electronic Passivation of Cesium Lead Halide Nanocrystals. *ACS Energy Letters*, **2019**, 4, 63-74	20.1	197
201	Temperature Dependence of the Amplified Spontaneous Emission from CsPbBr3 Nanocrystal Thin Films. *Journal of Physical Chemistry C*, **2018**, 122, 5813-5819	3.8	51
200	Polypyrenes as High-Performance Cathode Materials for Aluminum Batteries. *Advanced Materials*, **2018**, 30, e1705644	24	122
199	Guanidinium-Formamidinium Lead Iodide: A Layered Perovskite-Related Compound with Red Luminescence at Room Temperature. *Journal of the American Chemical Society*, **2018**, 140, 3850-3853	16.4	98
198	Low-Cost Synthesis of Highly Luminescent Colloidal Lead Halide Perovskite Nanocrystals by Wet Ball Milling. *ACS Applied Nano Materials*, **2018**, 1, 1300-1308	5.6	104
197	Genesis, challenges and opportunities for colloidal lead halide perovskite nanocrystals. *Nature Materials*, **2018**, 17, 394-405	27	1074
196	Popcorn-Shaped Fe O (W□stite) Nanoparticles from a Single-Source Precursor: Colloidal Synthesis and Magnetic Properties. *Chemistry of Materials*, **2018**, 30, 1249-1256	9.6	19
195	Oxidized Co-Sn nanoparticles as long-lasting anode materials for lithium-ion batteries. *Nanoscale*, **2018**, 10, 3777-3783	7.7	22
194	Unveiling the Shape Evolution and Halide-Ion-Segregation in Blue-Emitting Formamidinium Lead Halide Perovskite Nanocrystals Using an Automated Microfluidic Platform. *Nano Letters*, **2018**, 18, 1246-1252	11.5	81
193	Colloidal CsPbX (X = Cl, Br, I) Nanocrystals 2.0: Zwitterionic Capping Ligands for Improved Durability and Stability. *ACS Energy Letters*, **2018**, 3, 641-646	20.1	435
192	Aluminum Chloride-Graphite Batteries with Flexible Current Collectors Prepared from Earth-Abundant Elements. *Advanced Science*, **2018**, 5, 1700712	13.6	60
191	Colloidal Quantum Dot Inks for Single-Step-Fabricated Field-Effect Transistors: The Importance of Postdeposition Ligand Removal. *ACS Applied Materials & Interfaces*, **2018**, 10, 5626-5632	9.5	33
190	Efficient Optical Amplification in the Nanosecond Regime from Formamidinium Lead Iodide Nanocrystals. *ACS Photonics*, **2018**, 5, 907-917	6.3	23
189	Bright triplet excitons in caesium lead halide perovskites. *Nature*, **2018**, 553, 189-193	50.4	517
188	Full-color tuning in binary polymer:perovskite nanocrystals organic-inorganic hybrid blends. *Applied Physics Letters*, **2018**, 112, 171904	3.4	10

187	Monodisperse CoSn and FeSn nanocrystals as high-performance anode materials for lithium-ion batteries. *Nanoscale*, **2018**, 10, 6827-6831	7.7	41
186	Crystallographically Textured Nanomaterials Produced from the Liquid Phase Sintering of Bi SbTe Nanocrystal Building Blocks. *Nano Letters*, **2018**, 18, 2557-2563	11.5	63
185	NaFeF3 Nanoplates as Low-Cost Sodium and Lithium Cathode Materials for Stationary Energy Storage. *Chemistry of Materials*, **2018**, 30, 1825-1829	9.6	26
184	Bulk Phosphorus-Doped Graphitic Carbon. *Chemistry of Materials*, **2018**, 30, 4580-4589	9.6	10
183	Electron Mobility of 24 cm V s in PbSe Colloidal-Quantum-Dot Superlattices. *Advanced Materials*, **2018**, 30, e1802265	24	31
182	Highly Emissive Self-Trapped Excitons in Fully Inorganic Zero-Dimensional Tin Halides. *Angewandte Chemie - International Edition*, **2018**, 57, 11329-11333	16.4	162
181	Electrostatic-Driven Gelation of Colloidal Nanocrystals. *Langmuir*, **2018**, 34, 9167-9174	4	9
180	Ni-Al-Cr superalloy as high temperature cathode current collector for advanced thin film Li batteries.. *RSC Advances*, **2018**, 8, 20304-20313	3.7	14
179	Highly Emissive Self-Trapped Excitons in Fully Inorganic Zero-Dimensional Tin Halides. *Angewandte Chemie*, **2018**, 130, 11499-11503	3.6	31
178	Exploration of Near-Infrared-Emissive Colloidal Multinary Lead Halide Perovskite Nanocrystals Using an Automated Microfluidic Platform. *ACS Nano*, **2018**, 12, 5504-5517	16.7	99
177	Unraveling exciton-phonon coupling in individual FAPbI nanocrystals emitting near-infrared single photons. *Nature Communications*, **2018**, 9, 3318	17.4	84
176	Colloidal Bismuth Nanocrystals as a Model Anode Material for Rechargeable Mg-Ion Batteries: Atomistic and Mesoscale Insights. *ACS Nano*, **2018**, 12, 8297-8307	16.7	41
175	Growth of Au-PdSn Nanorods via Galvanic Replacement and Their Catalytic Performance on Hydrogenation and Sonogashira Coupling Reactions. *Langmuir*, **2018**, 34, 10634-10643	4	8
174	Phonon Interaction and Phase Transition in Single Formamidinium Lead Bromide Quantum Dots. *Nano Letters*, **2018**, 18, 4440-4446	11.5	41
173	Impact of Crystal Structure and Particles Shape on the Photoluminescence Intensity of CdSe/CdS Core/Shell Nanocrystals. *Frontiers in Chemistry*, **2018**, 6, 672	5	10
172	The effect of PbS nanocrystal additives on the charge transfer state recombination in a bulk heterojunction blend. *Organic Photonics and Photovoltaics*, **2018**, 6, 1-7	5	
171	Comparing Halide Ligands in PbS Colloidal Quantum Dots for Field-Effect Transistors and Solar Cells. *ACS Applied Nano Materials*, **2018**, 1, 6882-6889	5.6	41
170	Superfluorescence from lead halide perovskite quantum dot superlattices. *Nature*, **2018**, 563, 671-675	50.4	240

169	Long Exciton Dephasing Time and Coherent Phonon Coupling in CsPbBrCl Perovskite Nanocrystals. *Nano Letters*, **2018**, 18, 7546-7551	11.5	34
168	Size-Dependent Fault-Driven Relaxation and Faceting in Zincblende CdSe Colloidal Quantum Dots. *ACS Nano*, **2018**, 12, 12558-12570	16.7	22
167	Superweak Coordinating Anion as Superstrong Enhancer of Cyanine Organic Semiconductor Properties. *ChemPhysChem*, **2018**, 19, 3356-3363	3.2	4
166	Electroluminescence Generation in PbS Quantum Dot Light-Emitting Field-Effect Transistors with Solid-State Gating. *ACS Nano*, **2018**, 12, 12805-12813	16.7	34
165	Enhancing Quantum Dot Solar Cells Stability with a Semiconducting Single-Walled Carbon Nanotubes Interlayer Below the Top Anode. *Advanced Materials Interfaces*, **2018**, 5, 1801155	4.6	18
164	High-energy-density dual-ion battery for stationary storage of electricity using concentrated potassium fluorosulfonylimide. *Nature Communications*, **2018**, 9, 4469	17.4	140
163	SnP nanocrystals as anode materials for Na-ion batteries. *Journal of Materials Chemistry A*, **2018**, 6, 10958-10966	8.3	43
162	Pick a Color MARIA: Adaptive Sampling Enables the Rapid Identification of Complex Perovskite Nanocrystal Compositions with Defined Emission Characteristics. *ACS Applied Materials & Interfaces*, **2018**, 10, 18869-18878	9.5	54
161	Material Dimensionality Effects on Electron Transfer Rates Between CsPbBr and CdSe Nanoparticles. *Nano Letters*, **2018**, 18, 4771-4776	11.5	36
160	Resolving the Core and the Surface of CdSe Quantum Dots and Nanoplatelets Using Dynamic Nuclear Polarization Enhanced PASS-PIETA NMR Spectroscopy. *ACS Central Science*, **2018**, 4, 1113-1125	16.8	31
159	High Thermoelectric Performance in Crystallographically Textured n-Type BiTeSe Produced from Asymmetric Colloidal Nanocrystals. *ACS Nano*, **2018**, 12, 7174-7184	16.7	73
158	Zeolite-Templated Carbon as an Ordered Microporous Electrode for Aluminum Batteries. *ACS Nano* , **2017**, 11, 1911-1919	16.7	119
157	Localized holes and delocalized electrons in photoexcited inorganic perovskites: Watching each atomic actor by picosecond X-ray absorption spectroscopy. *Structural Dynamics*, **2017**, 4, 044002	3.2	52
156	Dismantling the "Red Wall" of Colloidal Perovskites: Highly Luminescent Formamidinium and Formamidinium-Cesium Lead Iodide Nanocrystals. *ACS Nano*, **2017**, 11, 3119-3134	16.7	291
155	Coherent Nanotwins and Dynamic Disorder in Cesium Lead Halide Perovskite Nanocrystals. *ACS Nano*, **2017**, 11, 3819-3831	16.7	181
154	Single crystals of caesium formamidinium lead halide perovskites: solution growth and gamma dosimetry. *NPG Asia Materials*, **2017**, 9, e373-e373	10.3	114
153	Efficient Aluminum Chloride-Natural Graphite Battery. *Chemistry of Materials*, **2017**, 29, 4484-4492	9.6	157
152	Bottom-up engineering of thermoelectric nanomaterials and devices from solution-processed nanoparticle building blocks. *Chemical Society Reviews*, **2017**, 46, 3510-3528	58.5	127

151	Strongly Red-Shifted Photoluminescence Band Induced by Molecular Twisting in Cyanine (Cy3) Dye Films. *Journal of Physical Chemistry C*, **2017**, 121, 9587-9593	3.8	16
150	Tuning Branching in Ceria Nanocrystals. *Chemistry of Materials*, **2017**, 29, 4418-4424	9.6	14
149	Long-Lived Hot Carriers in Formamidinium Lead Iodide Nanocrystals. *Journal of Physical Chemistry C* , **2017**, 121, 12434-12440	3.8	48
148	Exciton Recombination in Formamidinium Lead Triiodide: Nanocrystals versus Thin Films. *Small*, **2017**, 13, 1700673	11	54
147	Chromium nitride as a stable cathode current collector for all-solid-state thin film Li-ion batteries. *RSC Advances*, **2017**, 7, 26960-26967	3.7	8
146	Increased efficiency in pn-junction PbS QD solar cells via NaHS treatment of the p-type layer. *Applied Physics Letters*, **2017**, 110, 103904	3.4	24
145	High-Temperature Photoluminescence of CsPbX3 (X = Cl, Br, I) Nanocrystals. *Advanced Functional Materials*, **2017**, 27, 1606750	15.6	173
144	Direct Synthesis of Bulk Boron-Doped Graphitic Carbon. *Chemistry of Materials*, **2017**, 29, 3211-3218	9.6	40
143	Nanocrystalline FeF3 and MF2 (M = Fe, Co, and Mn) from metal trifluoroacetates and their Li(Na)-ion storage properties. *Journal of Materials Chemistry A*, **2017**, 5, 7383-7393	13	42
142	Solution-based synthesis and processing of Sn- and Bi-doped Cu3SbSe4 nanocrystals, nanomaterials and ring-shaped thermoelectric generators. *Journal of Materials Chemistry A*, **2017**, 5, 2592-2602	13	53
141	Stoichiometric control of the density of states in PbS colloidal quantum dot solids. *Science Advances* , **2017**, 3, eaao1558	14.3	50
140	Surface-Engineered Cationic Nanocrystals Stable in Biological Buffers and High Ionic Strength Solutions. *Chemistry of Materials*, **2017**, 29, 9416-9428	9.6	23
139	Tuning -Type Transport in Bottom-Up-Engineered Nanocrystalline Pb Chalcogenides Using Alkali Metal Chalcogenides as Capping Ligands. *Chemistry of Materials*, **2017**, 29, 7093-7097	9.6	21
138	Passivation of edge states in etched InAs sidewalls. *Applied Physics Letters*, **2017**, 111, 082101	3.4	9
137	Non-dissipative internal optical filtering with solution-grown perovskite single crystals for full-colour imaging. *NPG Asia Materials*, **2017**, 9, e431-e431	10.3	33
136	Microfluidic Reactors Provide Preparative and Mechanistic Insights into the Synthesis of Formamidinium Lead Halide Perovskite Nanocrystals. *Chemistry of Materials*, **2017**, 29, 8433-8439	9.6	65
135	Luminescent and Photoconductive Layered Lead Halide Perovskite Compounds Comprising Mixtures of Cesium and Guanidinium Cations. *Inorganic Chemistry*, **2017**, 56, 11552-11564	5.1	96
134	Polarized emission in II–VI and perovskite colloidal quantum dots. *Journal of Physics B: Atomic, Molecular and Optical Physics*, **2017**, 50, 214001	1.3	2

133	An All-Solution-Based Hybrid CMOS-Like Quantum Dot/Carbon Nanotube Inverter. *Advanced Materials*, **2017**, 29, 1701764	24	29
132	Kish Graphite Flakes as a Cathode Material for an Aluminum Chloride-Graphite Battery. *ACS Applied Materials & Interfaces*, **2017**, 9, 28478-28485	9.5	83
131	Lead Halide Perovskite Nanocrystals in the Research Spotlight: Stability and Defect Tolerance. *ACS Energy Letters*, **2017**, 2, 2071-2083	20.1	656
130	Design and Synthesis of Heteroleptic Iridium(III) Phosphors for Efficient Organic Light-Emitting Devices. *Inorganic Chemistry*, **2017**, 56, 15304-15313	5.1	18
129	Spontaneous emission enhancement of colloidal perovskite nanocrystals by a photonic crystal cavity. *Applied Physics Letters*, **2017**, 111, 221104	3.4	11
128	Properties and potential optoelectronic applications of lead halide perovskite nanocrystals. *Science* , **2017**, 358, 745-750	33.3	1190
127	Rashba Effect in a Single Colloidal CsPbBr Perovskite Nanocrystal Detected by Magneto-Optical Measurements. *Nano Letters*, **2017**, 17, 5020-5026	11.5	143
126	Aggregation-induced emission in lamellar solids of colloidal perovskite quantum wells. *Science Advances*, **2017**, 3, eaaq0208	14.3	51
125	Lead Halide Perovskite Nanocrystals: From Discovery to Self-assembly and Applications. *Chimia*, **2017**, 71, 461-470	1.3	46
124	Harnessing Defect-Tolerance at the Nanoscale: Highly Luminescent Lead Halide Perovskite Nanocrystals in Mesoporous Silica Matrixes. *Nano Letters*, **2016**, 16, 5866-74	11.5	396
123	Solution-Grown CsPbBr Perovskite Single Crystals for Photon Detection. *Chemistry of Materials*, **2016**, 28, 8470-8474	9.6	224
122	Polymer-Enhanced Stability of Inorganic Perovskite Nanocrystals and Their Application in Color Conversion LEDs. *ACS Applied Materials & Interfaces*, **2016**, 8, 19579-86	9.5	243
121	Detection of gamma photons using solution-grown single crystals of hybrid lead halide perovskites. *Nature Photonics*, **2016**, 10, 585-589	33.9	331
120	High-performance thermoelectric nanocomposites from nanocrystal building blocks. *Nature Communications*, **2016**, 7, 10766	17.4	184
119	Hydrogen-like Wannier-Mott Excitons in Single Crystal of Methylammonium Lead Bromide Perovskite. *ACS Nano*, **2016**, 10, 6363-71	16.7	114
118	Crystal symmetry breaking and vacancies in colloidal lead chalcogenide quantum dots. *Nature Materials*, **2016**, 15, 987-94	27	80
117	Highly Dynamic Ligand Binding and Light Absorption Coefficient of Cesium Lead Bromide Perovskite Nanocrystals. *ACS Nano*, **2016**, 10, 2071-81	16.7	1033
116	Porous Ge@C materials via twin polymerization of germanium(II) salicyl alcoholates for Li-ion batteries. *Journal of Materials Chemistry A*, **2016**, 4, 2705-2719	13	19

115	Single Cesium Lead Halide Perovskite Nanocrystals at Low Temperature: Fast Single-Photon Emission, Reduced Blinking, and Exciton Fine Structure. *ACS Nano*, **2016**, 10, 2485-90	16.7	239
114	Scalable Heating-Up Synthesis of Monodisperse Cu2ZnSnS4 Nanocrystals. *Chemistry of Materials*, **2016**, 28, 720-726	9.6	39
113	Inexpensive colloidal SnSb nanoalloys as efficient anode materials for lithium- and sodium-ion batteries. *Journal of Materials Chemistry A*, **2016**, 4, 7053-7059	13	75
112	Synthesis of Cesium Lead Halide Perovskite Nanocrystals in a Droplet-Based Microfluidic Platform: Fast Parametric Space Mapping. *Nano Letters*, **2016**, 16, 1869-77	11.5	349
111	Polar-solvent-free colloidal synthesis of highly luminescent alkylammonium lead halide perovskite nanocrystals. *Nanoscale*, **2016**, 8, 6278-83	7.7	196
110	Double Gate PbS Quantum Dot Field-Effect Transistors for Tuneable Electrical Characteristics. *Advanced Electronic Materials*, **2016**, 2, 1500467	6.4	43
109	Air-Stable, Near- to Mid-Infrared Emitting Solids of PbTe/CdTe Core-Shell Colloidal quantum dots. *ChemPhysChem*, **2016**, 17, 670-4	3.2	11
108	Free carrier generation and recombination in PbS quantum dot solar cells. *Applied Physics Letters*, **2016**, 108, 103102	3.4	11
107	Thermoelectric properties of semiconductor-metal composites produced by particle blending. *APL Materials*, **2016**, 4, 104813	5.7	38
106	Energy Transfer between Inorganic Perovskite Nanocrystals. *Journal of Physical Chemistry C*, **2016**, 120, 13310-13315	3.8	86
105	From molecular germanates to microporous Ge@C via twin polymerization. *Dalton Transactions*, **2016**, 45, 5741-51	4.3	8
104	Colloidal AgSbSe2 nanocrystals: surface analysis, electronic doping and processing into thermoelectric nanomaterials. *Journal of Materials Chemistry C*, **2016**, 4, 4756-4762	7.1	20
103	Probing the molecular character of periodic mesoporous organosilicates via photoluminescence of Lewis acid-base adducts. *Physical Chemistry Chemical Physics*, **2016**, 18, 13746-9	3.6	3
102	Synthesis and Thermoelectric Properties of Noble Metal Ternary Chalcogenide Systems of Ag□Au□e in the Forms of Alloyed Nanoparticles and Colloidal Nanoheterostructures. *Chemistry of Materials*, **2016**, 28, 7017-7028	9.6	18
101	Monodisperse Formamidinium Lead Bromide Nanocrystals with Bright and Stable Green Photoluminescence. *Journal of the American Chemical Society*, **2016**, 138, 14202-14205	16.4	297
100	Magnetic Manipulation of Spontaneous Emission from Inorganic CsPbBr3 Perovskites Nanocrystals. *Advanced Optical Materials*, **2016**, 4, 2004-2008	8.1	9
99	Efficient Blue Electroluminescence Using Quantum-Confined Two-Dimensional Perovskites. *ACS Nano*, **2016**, 10, 9720-9729	16.7	239
98	Temperature dependent behaviour of lead sulfide quantum dot solar cells and films. *Energy and Environmental Science*, **2016**, 9, 2916-2924	35.4	98

97	Prospects of nanoscience with nanocrystals. *ACS Nano*, **2015**, 9, 1012-57	16.7	849
96	Fast Anion-Exchange in Highly Luminescent Nanocrystals of Cesium Lead Halide Perovskites (CsPbX3, X = Cl, Br, I). *Nano Letters*, **2015**, 15, 5635-40	11.5	1515
95	Temperature-Dependent Optical Properties of PbS/CdS Core/Shell Quantum Dot Thin Films: Probing the Wave Function Delocalization. *Journal of Physical Chemistry C*, **2015**, 119, 17480-17486	3.8	16
94	Pyrite (FeS2) nanocrystals as inexpensive high-performance lithium-ion cathode and sodium-ion anode materials. *Nanoscale*, **2015**, 7, 9158-63	7.7	151
93	Opto-electronics of PbS quantum dot and narrow bandgap polymer blends. *Journal of Materials Chemistry C*, **2015**, 3, 5499-5505	7.1	25
92	Inexpensive antimony nanocrystals and their composites with red phosphorus as high-performance anode materials for Na-ion batteries. *Scientific Reports*, **2015**, 5, 8418	4.9	57
91	Counterion-Mediated Ligand Exchange for PbS Colloidal Quantum Dot Superlattices. *ACS Nano*, **2015**, 9, 11951-9	16.7	97
90	Efficient and Inexpensive Sodium–Magnesium Hybrid Battery. *Chemistry of Materials*, **2015**, 27, 7452-7458	9.6	81
89	Structure of Colloidal Quantum Dots from Dynamic Nuclear Polarization Surface Enhanced NMR Spectroscopy. *Journal of the American Chemical Society*, **2015**, 137, 13964-71	16.4	86
88	Low-threshold amplified spontaneous emission and lasing from colloidal nanocrystals of caesium lead halide perovskites. *Nature Communications*, **2015**, 6, 8056	17.4	1058
87	Random Lasing with Systematic Threshold Behavior in Films of CdSe/CdS Core/Thick-Shell Colloidal Quantum Dots. *ACS Nano*, **2015**, 9, 9792-801	16.7	41
86	Colloidal BiF3 nanocrystals: a bottom-up approach to conversion-type Li-ion cathodes. *Nanoscale*, **2015**, 7, 16601-5	7.7	17
85	Organic-Inorganic Hybrid Solution-Processed H2-Evolving Photocathodes. *ACS Applied Materials & Interfaces*, **2015**, 7, 19083-90	9.5	28
84	A General Synthesis Strategy for Monodisperse Metallic and Metalloid Nanoparticles (In, Ga, Bi, Sb, Zn, Cu, Sn, and Their Alloys) via in Situ Formed Metal Long-Chain Amides. *Chemistry of Materials*, **2015**, 27, 635-647	9.6	78
83	Origin of the increased open circuit voltage in PbS–CdS core–shell quantum dot solar cells. *Journal of Materials Chemistry A*, **2015**, 3, 1450-1457	13	81
82	Monodisperse SnSb nanocrystals for Li-ion and Na-ion battery anodes: synergy and dissonance between Sn and Sb. *Nanoscale*, **2015**, 7, 455-9	7.7	118
81	Increasing photon absorption and stability of PbS quantum dot solar cells using a ZnO interlayer. *Applied Physics Letters*, **2015**, 107, 183901	3.4	16
80	Detection of X-ray photons by solution-processed organic-inorganic perovskites. *Nature Photonics*, **2015**, 9, 444-449	33.9	685

79	Considerations on the model-free shape retrieval of inorganic nanocrystals from small-angle scattering data. *Journal of Applied Crystallography*, **2015**, 48, 857-868	3.8	11
78	Host-guest chemistry for tuning colloidal solubility, self-organization and photoconductivity of inorganic-capped nanocrystals. *Nature Communications*, **2015**, 6, 10142	17.4	20
77	Opportunities and challenges for quantum dot photovoltaics. *Nature Nanotechnology*, **2015**, 10, 994-7	28.7	64
76	Evaluation of Metal Phosphide Nanocrystals as Anode Materials for Na-ion Batteries. *Chimia*, **2015**, 69, 724-728	1.3	35
75	Nanocrystals of Cesium Lead Halide Perovskites (CsPbX□X = Cl, Br, and I): Novel Optoelectronic Materials Showing Bright Emission with Wide Color Gamut. *Nano Letters*, **2015**, 15, 3692-6	11.5	4888
74	Surface Chemistry of Colloidal Semiconductor Nanocrystals: Organic, Inorganic, and Hybrid **2015**, 233-271		4
73	Atomistic description of thiostannate-capped CdSe nanocrystals: retention of four-coordinate SnS4 motif and preservation of Cd-rich stoichiometry. *Journal of the American Chemical Society*, **2015**, 137, 1862-74	16.4	40
72	Facile Droplet-based Microfluidic Synthesis of Monodisperse IVVI Semiconductor Nanocrystals with Coupled In-Line NIR Fluorescence Detection. *Chemistry of Materials*, **2014**, 26, 2975-2982	9.6	82
71	Sensitized solar cells with colloidal PbS-CdS core-shell quantum dots. *Physical Chemistry Chemical Physics*, **2014**, 16, 736-42	3.6	117
70	Colloidal tin-germanium nanorods and their Li-ion storage properties. *ACS Nano*, **2014**, 8, 2360-8	16.7	62
69	Unraveling the core-shell structure of ligand-capped Sn/SnOx nanoparticles by surface-enhanced nuclear magnetic resonance, Mßsbauer, and X-ray absorption spectroscopies. *ACS Nano*, **2014**, 8, 2639-48	16.7	81
68	Surface functionalization of semiconductor and oxide nanocrystals with small inorganic oxoanions (PO4(3-), MoO4(2-)) and polyoxometalate ligands. *ACS Nano*, **2014**, 8, 9388-402	16.7	80
67	Monodisperse colloidal gallium nanoparticles: synthesis, low temperature crystallization, surface plasmon resonance and Li-ion storage. *Journal of the American Chemical Society*, **2014**, 136, 12422-30	16.4	87
66	Precisely Engineered Colloidal Nanoparticles and Nanocrystals for Li-Ion and Na-Ion Batteries: Model Systems or Practical Solutions?. *Chemistry of Materials*, **2014**, 26, 5422-5432	9.6	57
65	Infrared Emitting PbS Nanocrystal Solids through Matrix Encapsulation. *Chemistry of Materials*, **2014**, 26, 4256-4264	9.6	42
64	Monodisperse antimony nanocrystals for high-rate Li-ion and Na-ion battery anodes: nano versus bulk. *Nano Letters*, **2014**, 14, 1255-62	11.5	380
63	Lead halide perovskites and other metal halide complexes as inorganic capping ligands for colloidal nanocrystals. *Journal of the American Chemical Society*, **2014**, 136, 6550-3	16.4	215
62	Hybrid inorganic-organic tandem solar cells for broad absorption of the solar spectrum. *Physical Chemistry Chemical Physics*, **2014**, 16, 7672-6	3.6	17

61	Photophysics of PbS Quantum Dot Films Capped with Arsenic Sulfide Ligands. *Advanced Energy Materials*, **2014**, 4, 1301547	21.8	14
60	High infrared photoconductivity in films of arsenic-sulfide-encapsulated lead-sulfide nanocrystals. *ACS Nano*, **2014**, 8, 12883-94	16.7	54
59	High performance photoelectrochemical hydrogen generation and solar cells with a double type II heterojunction. *Physical Chemistry Chemical Physics*, **2014**, 16, 7531-7	3.6	20
58	5.2% efficient PbS nanocrystal Schottky solar cells. *Energy and Environmental Science*, **2013**, 6, 3054	35.4	114
57	Precision synthesis of colloidal inorganic nanocrystals using metal and metalloid amides. *Nanoscale*, **2013**, 5, 8398-410	7.7	36
56	Monodisperse and inorganically capped Sn and Sn/SnO2 nanocrystals for high-performance Li-ion battery anodes. *Journal of the American Chemical Society*, **2013**, 135, 4199-202	16.4	314
55	Tuning the magnetic properties of metal oxide nanocrystal heterostructures by cation exchange. *Nano Letters*, **2013**, 13, 586-93	11.5	83
54	Binary superlattices from colloidal nanocrystals and giant polyoxometalate clusters. *Nano Letters*, **2013**, 13, 1699-705	11.5	38
53	Colloidal Synthesis of InSb Nanocrystals with Controlled Polymorphism Using Indium and Antimony Amides. *Chemistry of Materials*, **2013**, 25, 1788-1792	9.6	39
52	Chemical design of nanocrystal solids. *Chimia*, **2013**, 67, 316-21	1.3	4
51	Inorganically functionalized PbS-CdS colloidal nanocrystals: integration into amorphous chalcogenide glass and luminescent properties. *Journal of the American Chemical Society*, **2012**, 134, 2457-60	16.4	130
50	Metal-free inorganic ligands for colloidal nanocrystals: S2-, HS-, Se2-, HSe-, Te2-, HTe-, TeS3(2-), OH-, and NH2- as surface ligands. *Journal of the American Chemical Society*, **2011**, 133, 10612-20	16.4	564
49	Band-like transport, high electron mobility and high photoconductivity in all-inorganic nanocrystal arrays. *Nature Nanotechnology*, **2011**, 6, 348-52	28.7	597
48	Temperature dependent photoresponse from colloidal PbS quantum dot sensitized inorganic/organic hybrid photodiodes. *Applied Physics Letters*, **2011**, 98, 053304	3.4	17
47	AFM-based photocurrent imaging of epitaxial and colloidal QDs. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2011**, 8, 426-428		1
46	Optical Properties of Organic Semiconductor Blends with Near-Infrared Quantum-Dot Sensitizers for Light Harvesting Applications. *Advanced Energy Materials*, **2011**, 1, 802-812	21.8	84
45	Evaluation of ordering in single-component and binary nanocrystal superlattices by analysis of their autocorrelation functions. *ACS Nano*, **2011**, 5, 1703-12	16.7	24
44	Scanning microwave microscopy and scanning capacitance microscopy on colloidal nanocrystals. *Journal of Applied Physics*, **2011**, 109, 064313	2.5	8

43	Enhanced color conversion from colloidal CdSe/CdS dot/rods by vertical microcavities. *Applied Physics Letters*, **2010**, 97, 111115	3.4	6
42	Energetic and entropic contributions to self-assembly of binary nanocrystal superlattices: temperature as the structure-directing factor. *Journal of the American Chemical Society*, **2010**, 132, 11967-77	16.4	184
41	Large-area ordered superlattices from magnetic Wustite/cobalt ferrite core/shell nanocrystals by doctor blade casting. *ACS Nano*, **2010**, 4, 423-31	16.7	76
40	Highly monodisperse bismuth nanoparticles and their three-dimensional superlattices. *Journal of the American Chemical Society*, **2010**, 132, 15158-9	16.4	76
39	Alkyl chains of surface ligands affect polytypism of cdse nanocrystals and play an important role in the synthesis of anisotropic nanoheterostructures. *Journal of the American Chemical Society*, **2010**, 132, 15866-8	16.4	99
38	Nanocrystal superlattices with thermally degradable hybrid inorganic-organic capping ligands. *Journal of the American Chemical Society*, **2010**, 132, 15124-6	16.4	71
37	Langmuir-Schaefer deposition of quantum dot multilayers. *Langmuir*, **2010**, 26, 7732-6	4	50
36	Semiconductor nanocrystals functionalized with antimony telluride zintl ions for nanostructured thermoelectrics. *Journal of the American Chemical Society*, **2010**, 132, 6686-95	16.4	140
35	Expanding the chemical versatility of colloidal nanocrystals capped with molecular metal chalcogenide ligands. *Journal of the American Chemical Society*, **2010**, 132, 10085-92	16.4	239
34	Prospects of colloidal nanocrystals for electronic and optoelectronic applications. *Chemical Reviews* , **2010**, 110, 389-458	68.1	3354
33	Damascene process for controlled positioning of magnetic colloidal nanocrystals. *Advanced Materials*, **2010**, 22, 1364-8	24	7
32	Enhanced infrared emission from colloidal HgTe nanocrystal quantum dots on silicon-on-insulator photonic crystals. *Applied Physics Letters*, **2009**, 95, 053107	3.4	6
31	Solution-Processable Near-IR Photodetectors Based on Electron Transfer from PbS Nanocrystals to Fullerene Derivatives. *Advanced Materials*, **2009**, 21, 683-687	24	106
30	Exciton-Exciton Interaction and Optical Gain in Colloidal CdSe/CdS Dot/Rod Nanocrystals. *Advanced Materials*, **2009**, 21, 4942-4946	24	76
29	Exchange-coupled bimagnetic wüstite/metal ferrite core/shell nanocrystals: size, shape, and compositional control. *Small*, **2009**, 5, 2247-52	11	69
28	Near-infrared imaging with quantum-dot-sensitized organic photodiodes. *Nature Photonics*, **2009**, 3, 332-336	33.9	512
27	Colloidal nanocrystals with molecular metal chalcogenide surface ligands. *Science*, **2009**, 324, 1417-20	33.3	852
26	Highly efficient (infra)red conversion of InGaN light emitting diodes by nanocrystals, enhanced by colour selective mirrors. *Nanotechnology*, **2008**, 19, 355205	3.4	2

25	Energy transfer in close-packed PbS nanocrystal films. *Physical Review B*, **2008**, 77,	3.3	45
24	Quantum dot nanocolumn photodetectors for light detection in the infrared. *Applied Physics Letters*, **2008**, 92, 261113	3.4	14
23	Preparation of catalytic nano-particles and growth of aligned CNTs with HF-CVD. *Journal of Physics: Conference Series*, **2008**, 100, 052092	0.3	1
22	Quasi-seeded growth of ligand-tailored PbSe nanocrystals through cation-exchange-mediated nucleation. *Angewandte Chemie - International Edition*, **2008**, 47, 3029-33	16.4	97
21	Gold/Iron Oxide Core/Hollow-Shell Nanoparticles. *Advanced Materials*, **2008**, 20, 4323-4329	24	284
20	Inkjet-Printed Nanocrystal Photodetectors Operating up to 3 Ħn Wavelengths. *Advanced Materials*, **2007**, 19, 3574-3578	24	163
19	Quantum confinement in layer-by-layer deposited colloidal HgTe nanocrystals determined by spectroscopic ellipsometry. *Applied Surface Science*, **2007**, 254, 291-294	6.7	10
18	Fatty acid salts as stabilizers in size- and shape-controlled nanocrystal synthesis: the case of inverse spinel iron oxide. *Journal of the American Chemical Society*, **2007**, 129, 6352-3	16.4	336
17	SnTe nanocrystals: a new example of narrow-gap semiconductor quantum dots. *Journal of the American Chemical Society*, **2007**, 129, 11354-5	16.4	146
16	Hybrid Solar Cells Using HgTe Nanocrystals and Nanoporous TiO2 Electrodes. *Advanced Functional Materials*, **2006**, 16, 1095-1099	15.6	63
15	Effect of quantum confinement on higher transitions in HgTe nanocrystals. *Applied Physics Letters*, **2006**, 89, 193114	3.4	17
14	Two- and one-dimensional light propagations and gain in layer-by-layer-deposited colloidal nanocrystal waveguides. *Applied Physics Letters*, **2006**, 89, 111120	3.4	12
13	Colloidal HgTe nanocrystals with widely tunable narrow band gap energies: from telecommunications to molecular vibrations. *Journal of the American Chemical Society*, **2006**, 128, 3516-7	16.4	152
12	Spectroscopic ellipsometry of layer by layer deposited colloidal HgTe nanocrystals exhibiting quantum confinement. *Physica E: Low-Dimensional Systems and Nanostructures*, **2006**, 32, 104-107	3	9
11	Nanocrystal-based microcavity light-emitting devices operating in the telecommunication wavelength range. *Applied Physics Letters*, **2005**, 86, 241104	3.4	16
10	Spectral, Optical, and Photocatalytic Characteristics of Quantum-Sized Particles of CdTe. *Theoretical and Experimental Chemistry*, **2004**, 40, 220-225	1.3	14
9	Photoinduced Electron Transfer between CdS and CdTe Nanoparticles in Colloidal Solutions. *Theoretical and Experimental Chemistry*, **2004**, 40, 287-292	1.3	8
8	Engineering colloidal quantum dots1-29		2

7	Ligand-induced symmetry breaking, size and morphology in colloidal lead sulfide QDs: from classic to thiourea precursors2, 1		6
6	Building a Better Li-Garnet Solid Electrolyte/Metallic Li Interface with Antimony. *Advanced Energy Materials*,2102086	21.8	16
5	Energy harvesting textiles: using wearable luminescent solar concentrators to improve the efficiency of fiber solar cells. *Journal of Materials Chemistry A*,	13	3
4	Heterostructure from PbS Quantum Dot and Carbon Nanotube Inks for High-Efficiency Near-Infrared Light-Emitting Field-Effect Transistors. *Advanced Electronic Materials*,2101126	6.4	0
3	Amphiphilic Polymer Co-Network: A Versatile Matrix for Tailoring the Photonic Energy Transfer in Wearable Energy Harvesting Devices. *Advanced Energy Materials*,2200441	21.8	2
2	Ultrafast Electro-Absorption Switching in Colloidal CdSe/CdS Core/Shell Quantum Dots Driven by Intense THz Pulses. *Advanced Optical Materials*,2102407	8.1	2
1	Ligands Mediate Anion Exchange between Colloidal Lead-Halide Perovskite Nanocrystals. *Nano Letters*,	11.5	3