Cherie R Kagan

List of Publications by Year
in descending order

139	13,127	31976	22166
papers	citations	53 h-index	113 g-index

142	142	142	18089
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Chemical and Physical Properties of Photonic Nobleâ€Metal Nanomaterials. Advanced Materials, 2023, 35, e2108104.	21.0	10
2	Template-Assisted Self-Assembly of Fluorescent Nanodiamonds for Scalable Quantum Technologies. ACS Nano, 2022, 16, 1847-1856.	14.6	18
3	Electrochemically deposited molybdenum disulfide surfaces enable polymer adsorption studies using quartz crystal microbalance with dissipation monitoring (QCM-D). Journal of Colloid and Interface Science, 2022, 614, 522-531.	9.4	2
4	Photophysics of Two-Dimensional Semiconducting Organicâ€“Inorganic Metal-Halide Perovskites. Annual Review of Physical Chemistry, 2022, 73, 403-428.	10.8	18
5	Special report: The Internet of Things for Precision Agriculture (IoT4Ag). Computers and Electronics in Agriculture, 2022, 196, 106742.	7.7	13
6	Sub-5 nm Anisotropic Pattern Transfer via Colloidal Lithography of a Self-Assembled GdF₃ Nanocrystal Monolayer. Nano Letters, 2022, 22, 1992-2000.	9.1	5
7	Tanks and Truth. ACS Nano, 2022, 16, 4975-4976.	14.6	0
8	Monodisperse Nanocrystal Superparticles through a Sourceâ€“Sink Emulsion System. Chemistry of Materials, 2022, 34, 2779-2789.	6.7	9
9	Dynamic magnetic field alignment and polarized emission of semiconductor nanoplatelets in a liquid crystal polymer. Nature Communications, 2022, 13, 2507.	12.8	12
10	Nanocrystal Superparticles with Whispering-Gallery Modes Tunable through Chemical and Optical Triggers. Nano Letters, 2022, 22, 4765-4773.	9.1	7
11	Enhanced Carrier Transport in Strongly Coupled, Epitaxially Fused CdSe Nanocrystal Solids. Nano Letters, 2021, 21, 3318-3324.	9.1	17
12	Broadband Circular Polarizers via Coupling in 3D Plasmonic Meta-Atom Arrays. ACS Photonics, 2021, 8, 1286-1292.	6.6	9
13	Nanocomposites of 2D-MoS₂ Exfoliated in Thermotropic Liquid Crystals. , 2021, 3, 704-712.		9
14	Impurities in Nanocrystal Thin-Film Transistors Fabricated by Cation Exchange. Journal of Physical Chemistry Letters, 2021, 12, 6514-6518.	4.6	4
15	Entrepreneurial Talent Building for 21st Century Agricultural Innovation. ACS Nano, 2021, 15, 10748-10758.	14.6	17
16	Grafted Nanoparticle Surface Wetting during Phase Separation in Polymer Nanocomposite Films. ACS Applied Materials & Interfaces, 2021, 13, 37628-37637.	8.0	12
17	Ink-Lithography for Property Engineering and Patterning of Nanocrystal Thin Films. ACS Nano, 2021, 15, 15667-15675.	14.6	23
18	IoT4Ag: MEMS-Enabled Distributed Sensing, Communications, And Information Systems for The Internet Of Things For Precision Agriculture. , 2021, , .		0

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19	Colloidal Quantum Dots as Platforms for Quantum Information Science. Chemical Reviews, 2021, 121, 3186-3233.	47.7	138
20	Heavyâ€Metalâ€Free Quantum Dotâ€Based Flexible Electronics. Information Display, 2021, 37, 24-32.	0.2	4
21	Chemo- and Thermomechanically Configurable 3D Optical Metamaterials Constructed from Colloidal Nanocrystal Assemblies. ACS Nano, 2020, 14, 1427-1435.	14.6	20
22	Self-assembly for electronics. MRS Bulletin, 2020, 45, 807-814.	3.5	10
23	What Will We Carry Forward from This Time?. ACS Nano, 2020, 14, 14253-14254.	14.6	4
24	Reproducibility in Nanocrystal Synthesis? Watch Out for Impurities!. ACS Nano, 2020, 14, 6359-6361.	14.6	53
25	Tailoring Hot Exciton Dynamics in 2D Hybrid Perovskites through Cation Modification. ACS Nano, 2020, 14, 3621-3629.	14.6	38
26	Favoring the Growth of High-Quality, Three-Dimensional Supercrystals of Nanocrystals. Journal of Physical Chemistry C, 2020, 124, 11256-11264.	3.1	21
27	Growing Contributions of Nano in 2020. ACS Nano, 2020, 14, 16163-16164.	14.6	1
28	General Synthetic Route to High-Quality Colloidal IIIâ€“V Semiconductor Quantum Dots Based on Pnictogen Chlorides. Journal of the American Chemical Society, 2019, 141, 15145-15152.	13.7	54
29	Air-Stable CuInSe₂ Nanocrystal Transistors and Circuits via Post-Deposition Cation Exchange. ACS Nano, 2019, 13, 2324-2333.	14.6	24
30	Designing Strong Optical Absorbers via Continuous Tuning of Interparticle Interaction in Colloidal Gold Nanocrystal Assemblies. ACS Nano, 2019, 13, 7493-7501.	14.6	18
31	Redefining the Experimental and Methods Sections. ACS Nano, 2019, 13, 4862-4864.	14.6	16
32	Longer Cations Increase Energetic Disorder in Excitonic 2D Hybrid Perovskites. Journal of Physical Chemistry Letters, 2019, 10, 1198-1205.	4.6	75
33	Flexible colloidal nanocrystal electronics. Chemical Society Reviews, 2019, 48, 1626-1641.	38.1	95
34	Plasmonic Optical and Chiroptical Response of Self-Assembled Au Nanorod Equilateral Trimers. ACS Nano, 2019, 13, 1617-1624.	14.6	75
35	Electrons, Excitons, and Phonons in Two-Dimensional Hybrid Perovskites: Connecting Structural, Optical, and Electronic Properties. Journal of Physical Chemistry Letters, 2018, 9, 1434-1447.	4.6	283
36	Helmuth MÃ¶hwald (1946â€“2018). ACS Nano, 2018, 12, 3053-3055.	14.6	0

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37	3D Nanofabrication via Chemoâ€Mechanical Transformation of Nanocrystal/Bulk Heterostructures. Advanced Materials, 2018, 30, e1800233.	21.0	15
38	The Effect of Dielectric Environment on Doping Efficiency in Colloidal PbSe Nanostructures. ACS Nano, 2018, 12, 1313-1320.	14.6	12
39	Preparation of silica coated and⁹⁰Y-radiolabeledÎ²-NaYF₄upconverting nanophosphors for multimodal tracing. Nano Futures, 2018, 2, 025002.	2.2	4
40	Angle-Independent Optical Moisture Sensors Based on Hydrogel-Coated Plasmonic Lattice Arrays. ACS Applied Nano Materials, 2018, 1, 1430-1437.	5.0	22
41	Ultrasensitive, Mechanically Responsive Optical Metasurfaces via Strain Amplification. ACS Nano, 2018, 12, 10683-10692.	14.6	34
42	Nanoimprinted Chiral Plasmonic Substrates with Three-Dimensional Nanostructures. Nano Letters, 2018, 18, 7389-7394.	9.1	36
43	Photocatalytic Hydrogen Evolution from Substoichiometric Colloidal WO_{3â€“x} Nanowires. ACS Energy Letters, 2018, 3, 1904-1910.	17.4	145
44	Charge Transport Modulation in PbSe Nanocrystal Solids by Au_xAg_{1â€“x} Nanoparticle Doping. ACS Nano, 2018, 12, 9091-9100.	14.6	20
45	Hierarchical Materials Design by Pattern Transfer Printing of Self-Assembled Binary Nanocrystal Superlattices. Nano Letters, 2017, 17, 1387-1394.	9.1	40
46	Unbalanced Hole and Electron Diffusion in Lead Bromide Perovskites. Nano Letters, 2017, 17, 1727-1732.	9.1	100
47	Directional Carrier Transfer in Strongly Coupled Binary Nanocrystal Superlattice Films Formed by Assembly and in Situ Ligand Exchange at a Liquidâ€“Air Interface. Journal of Physical Chemistry C, 2017, 121, 4146-4157.	3.1	19
48	Plasmon Resonances in Self-Assembled Two-Dimensional Au Nanocrystal Metamolecules. ACS Nano, 2017, 11, 2917-2927.	14.6	78
49	Nanoscience and Nanotechnology Cross Borders. ACS Nano, 2017, 11, 1123-1126.	14.6	4
50	Prof. Millie Dresselhaus (1930â€“2017), Carbon Nanomaterials Pioneer. ACS Nano, 2017, 11, 2307-2308.	14.6	2
51	The dendritic effect and magnetic permeability in dendron coated nickel and manganese zinc ferrite nanoparticles. Nanoscale, 2017, 9, 13922-13928.	5.6	9
52	Our First and Next Decades at ACS Nano. ACS Nano, 2017, 11, 7553-7555.	14.6	0
53	Rapid Large-Scale Assembly and Pattern Transfer of One-Dimensional Gold Nanorod Superstructures. ACS Applied Materials & Interfaces, 2017, 9, 25513-25521.	8.0	27
54	High-strength magnetically switchable plasmonic nanorods assembled from a binary nanocrystal mixture. Nature Nanotechnology, 2017, 12, 228-232.	31.5	75

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55	A Big Year Ahead for Nano in 2018. ACS Nano, 2017, 11, 11755-11757.	14.6	1
56	Nanoscience and Nanotechnology Impacting Diverse Fields of Science, Engineering, and Medicine. ACS Nano, 2016, 10, 10615-10617.	14.6	22
57	Alternate current magnetic property characterization of nonstoichiometric zinc ferrite nanocrystals for inductor fabrication via a solution based process. Journal of Applied Physics, 2016, 119, .	2.5	13
58	At the Nexus of Food Security and Safety: Opportunities for Nanoscience and Nanotechnology. ACS Nano, 2016, 10, 2985-2986.	14.6	47
59	Exploiting the colloidal nanocrystal library to construct electronic devices. Science, 2016, 352, 205-208.	12.6	234
60	Mapping the Competition between Exciton Dissociation and Charge Transport in Organic Solar Cells. ACS Applied Materials & Interfaces, 2016, 8, 28743-28749.	8.0	12
61	Direct Observation of Electronâ€“Phonon Coupling and Slow Vibrational Relaxation in Organicâ€“Inorganic Hybrid Perovskites. Journal of the American Chemical Society, 2016, 138, 13798-13801.	13.7	196
62	Nano Day: Celebrating the Next Decade of Nanoscience and Nanotechnology. ACS Nano, 2016, 10, 9093-9103.	14.6	77
63	Advanced Architecture for Colloidal PbS Quantum Dot Solar Cells Exploiting a CdSe Quantum Dot Buffer Layer. ACS Nano, 2016, 10, 9267-9273.	14.6	69
64	Roadmap on optical metamaterials. Journal of Optics (United Kingdom), 2016, 18, 093005.	2.2	118
65	Building devices from colloidal quantum dots. Science, 2016, 353, .	12.6	996
66	Limits of Carrier Diffusion in n-Type and p-Type CH₃NH₃PbI₃ Perovskite Single Crystals. Journal of Physical Chemistry Letters, 2016, 7, 3510-3518.	4.6	86
67	The effects of inorganic surface treatments on photogenerated carrier mobility and lifetime in PbSe quantum dot thin films. Chemical Physics, 2016, 471, 81-88.	1.9	18
68	Grand Plans for Nano. ACS Nano, 2015, 9, 11503-11505.	14.6	3
69	Ultrafast Electron Trapping in Ligand-Exchanged Quantum Dot Assemblies. ACS Nano, 2015, 9, 1440-1447.	14.6	15
70	Prospects of Nanoscience with Nanocrystals. ACS Nano, 2015, 9, 1012-1057.	14.6	1,005
71	Large-Area Nanoimprinted Colloidal Au Nanocrystal-Based Nanoantennas for Ultrathin Polarizing Plasmonic Metasurfaces. Nano Letters, 2015, 15, 5254-5260.	9.1	73
72	Selective p- and n-Doping of Colloidal PbSe Nanowires To Construct Electronic and Optoelectronic Devices. ACS Nano, 2015, 9, 7536-7544.	14.6	32

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73	Binary and Ternary Superlattices Self-Assembled from Colloidal Nanodisks and Nanorods. Journal of the American Chemical Society, 2015, 137, 6662-6669.	13.7	110
74	Deposition of Waferâ€Scale Singleâ€Component and Binary Nanocrystal Superlattice Thin Films Via Dipâ€Coating. Advanced Materials, 2015, 27, 2846-2851.	21.0	52
75	Smectic Nanorod Superlattices Assembled on Liquid Subphases: Structure, Orientation, Defects, and Optical Polarization. Chemistry of Materials, 2015, 27, 2998-3008.	6.7	69
76	Flexible, High-Speed CdSe Nanocrystal Integrated Circuits. Nano Letters, 2015, 15, 7155-7160.	9.1	52
77	Increased Carrier Mobility and Lifetime in CdSe Quantum Dot Thin Films through Surface Trap Passivation and Doping. Journal of Physical Chemistry Letters, 2015, 6, 4605-4609.	4.6	47
78	Electron and hole transport in ambipolar, thin film pentacene transistors. Journal of Applied Physics, 2015, 117, .	2.5	4
79	Spectrally-Resolved Dielectric Functions of Solution-Cast Quantum Dot Thin Films. Chemistry of Materials, 2015, 27, 6463-6469.	6.7	31
80	Substitutional doping in nanocrystal superlattices. Nature, 2015, 524, 450-453.	27.8	174
81	Charge transport in strongly coupled quantum dot solids. Nature Nanotechnology, 2015, 10, 1013-1026.	31.5	473
82	Airâ€“Liquid Interfacial Self-Assembly of Conjugated Block Copolymers into Ordered Nanowire Arrays. ACS Nano, 2014, 8, 12755-12762.	14.6	55
83	X-ray Mapping of Nanoparticle Superlattice Thin Films. ACS Nano, 2014, 8, 12843-12850.	14.6	19
84	A Year for Nanoscience. ACS Nano, 2014, 8, 11901-11903.	14.6	6
85	Air-Stable, Nanostructured Electronic and Plasmonic Materials from Solution-Processable, Silver Nanocrystal Building Blocks. ACS Nano, 2014, 8, 2746-2754.	14.6	40
86	Effects of Post-Synthesis Processing on CdSe Nanocrystals and Their Solids: Correlation between Surface Chemistry and Optoelectronic Properties. Journal of Physical Chemistry C, 2014, 118, 27097-27105.	3.1	33
87	Engineering Charge Injection and Charge Transport for High Performance PbSe Nanocrystal Thin Film Devices and Circuits. Nano Letters, 2014, 14, 6210-6216.	9.1	100
88	Synthesis of N-Type Plasmonic Oxide Nanocrystals and the Optical and Electrical Characterization of their Transparent Conducting Films. Chemistry of Materials, 2014, 26, 4579-4588.	6.7	46
89	Low-Frequency (1/f) Noise in Nanocrystal Field-Effect Transistors. ACS Nano, 2014, 8, 9664-9672.	14.6	55
90	Gate-Induced Carrier Delocalization in Quantum Dot Field Effect Transistors. Nano Letters, 2014, 14, 5948-5952.	9.1	25

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91	Plasmon-Enhanced Upconversion Luminescence in Single Nanophosphorâ€“Nanorod Heterodimers Formed through Template-Assisted Self-Assembly. ACS Nano, 2014, 8, 9482-9491.	14.6	127
92	Designing High-Performance PbS and PbSe Nanocrystal Electronic Devices through Stepwise, Post-Synthesis, Colloidal Atomic Layer Deposition. Nano Letters, 2014, 14, 1559-1566.	9.1	176
93	Solution-Processed Phase-Change VO₂ Metamaterials from Colloidal Vanadium Oxide (VO_x) Nanocrystals. ACS Nano, 2014, 8, 797-806.	14.6	112
94	Plasmonic Enhancement of Nanophosphor Upconversion Luminescence in Au Nanohole Arrays. ACS Nano, 2013, 7, 7186-7192.	14.6	199
95	In Situ Repair of High-Performance, Flexible Nanocrystal Electronics for Large-Area Fabrication and Operation in Air. ACS Nano, 2013, 7, 8275-8283.	14.6	52
96	Near-Infrared Metatronic Nanocircuits by Design. Physical Review Letters, 2013, 111, 073904.	7.8	64
97	Exciting Times for Nano. ACS Nano, 2013, 7, 10437-10439.	14.6	1
98	Solution-Based Stoichiometric Control over Charge Transport in Nanocrystalline CdSe Devices. ACS Nano, 2013, 7, 8760-8770.	14.6	43
99	Bistable Magnetoresistance Switching in Exchange-Coupled CoFe₂O₄â€“Fe₃O₄ Binary Nanocrystal Superlattices by Self-Assembly and Thermal Annealing. ACS Nano, 2013, 7, 1478-1486.	14.6	85
100	Chemically Tailored Dielectric-to-Metal Transition for the Design of Metamaterials from Nanoimprinted Colloidal Nanocrystals. Nano Letters, 2013, 13, 350-357.	9.1	87
101	Stoichiometric Control of Lead Chalcogenide Nanocrystal Solids to Enhance Their Electronic and Optoelectronic Device Performance. ACS Nano, 2013, 7, 2413-2421.	14.6	210
102	Competition of shape and interaction patchiness for self-assembling nanoplates. Nature Chemistry, 2013, 5, 466-473.	13.6	278
103	Engineering Catalytic Contacts and Thermal Stability: Gold/Iron Oxide Binary Nanocrystal Superlattices for CO Oxidation. Journal of the American Chemical Society, 2013, 135, 1499-1505.	13.7	122
104	Flexible and low-voltage integrated circuits constructed from high-performance nanocrystal transistors. Nature Communications, 2012, 3, 1216.	12.8	172
105	Remote Doping and Schottky Barrier Formation in Strongly Quantum Confined Single PbSe Nanowire Field-Effect Transistors. ACS Nano, 2012, 6, 4328-4334.	14.6	30
106	The State of Nanoparticle-Based Nanoscience and Biotechnology: Progress, Promises, and Challenges. ACS Nano, 2012, 6, 8468-8483.	14.6	211
107	Improved Size-Tunable Synthesis of Monodisperse Gold Nanorods through the Use of Aromatic Additives. ACS Nano, 2012, 6, 2804-2817.	14.6	749
108	Metal-Enhanced Upconversion Luminescence Tunable through Metal Nanoparticleâ€“Nanophosphor Separation. ACS Nano, 2012, 6, 8758-8766.	14.6	262

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109	Bandlike Transport in Strongly Coupled and Doped Quantum Dot Solids: A Route to High-Performance Thin-Film Electronics. Nano Letters, 2012, 12, 2631-2638.	9.1	340
110	Wrinkles and deep folds as photonic structures in photovoltaics. Nature Photonics, 2012, 6, 327-332.	31.4	346
111	Flexible, Low-Voltage, and Low-Hysteresis PbSe Nanowire Field-Effect Transistors. ACS Nano, 2011, 5, 10074-10083.	14.6	53
112	Multiscale Periodic Assembly of Striped Nanocrystal Superlattice Films on a Liquid Surface. Nano Letters, 2011, 11, 841-846.	9.1	79
113	Ambipolar and Unipolar PbSe Nanowire Field-Effect Transistors. ACS Nano, 2011, 5, 3230-3236.	14.6	31
114	Near-Infrared Absorption of Monodisperse Silver Telluride (Ag₂Te) Nanocrystals and Photoconductive Response of Their Self-Assembled Superlattices. Chemistry of Materials, 2011, 23, 4657-4659.	6.7	51
115	Diketopyrrolopyrrole-Based Ï€-Bridged Donorâ€“Acceptor Polymer for Photovoltaic Applications. ACS Applied Materials & Interfaces, 2011, 3, 3874-3883.	8.0	43
116	Thiocyanate-Capped Nanocrystal Colloids: Vibrational Reporter of Surface Chemistry and Solution-Based Route to Enhanced Coupling in Nanocrystal Solids. Journal of the American Chemical Society, 2011, 133, 15753-15761.	13.7	309
117	Molecular Monolayers as Semiconducting Channels in Field Effect Transistors. Topics in Current Chemistry, 2011, 312, 213-237.	4.0	9
118	Thiocyanate-Capped PbS Nanocubes: Ambipolar Transport Enables Quantum Dot Based Circuits on a Flexible Substrate. Nano Letters, 2011, 11, 4764-4767.	9.1	171
119	Flexible organic electronics for use in neural sensing. , 2011, 2011, 5400-3.		2
120	Device Configurations for Ambipolar Transport in Flexible, Pentacene Transistors. Advanced Materials, 2010, 22, 5063-5068.	21.0	27
121	Comparison of the Energy-Level Alignment of Thiolate- and Carbodithiolate-Bound Self-Assembled Monolayers on Gold. Journal of Physical Chemistry C, 2010, 114, 20843-20851.	3.1	6
122	Small-Molecule Thiophene-C₆₀ Dyads As Compatibilizers in Inverted Polymer Solar Cells. Chemistry of Materials, 2010, 22, 5762-5773.	6.7	68
123	Ambipolar transport in solution-deposited pentacene transistors enhanced by molecular engineering of device contacts. Applied Physics Letters, 2009, 95, 023301.	3.3	28
124	Report from the third workshop on future directions of solid-state chemistry: The status of solid-state chemistry and its impact in the physical sciences. Progress in Solid State Chemistry, 2008, 36, 1-133.	7.2	58
125	Chemically Assisted Directed Assembly of Carbon Nanotubes for the Fabrication of Large-Scale Device Arrays. Journal of the American Chemical Society, 2007, 129, 11964-11968.	13.7	66
126	Alignment, Electronic Properties, Doping, and On-Chip Growth of Colloidal PbSe Nanowires. Journal of Physical Chemistry C, 2007, 111, 13244-13249.	3.1	53

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127	Synergism in binary nanocrystal superlattices leads to enhanced p-type conductivity in self-assembled PbTe/Ag2Te thin films. Nature Materials, 2007, 6, 115-121.	27.5	498
128	Enforced One-Dimensional Photoconductivity in Core-Cladding Hexabenzocoronenes. Nano Letters, 2006, 6, 2838-2841.	9.1	54
129	Chemical Complementarity in the Contacts for Nanoscale Organic Field-Effect Transistors. Journal of the American Chemical Society, 2006, 128, 1788-1789.	13.7	80
130	The Role of Chemical Contacts in Molecular Conductance. Nano Letters, 2006, 6, 2955-2958.	9.1	24
131	Self-Assembly and Oligomerization of Alkyne-Terminated Molecules on Metal and Oxide Surfaces. Langmuir, 2005, 21, 11574-11577.	3.5	11
132	Electrostatic Field and Partial Fermi Level Pinning at the Pentaceneâ^'SiO2Interface. Journal of Physical Chemistry B, 2005, 109, 1834-1838.	2.6	47
133	Molecular Transport Junctions: An Introduction. MRS Bulletin, 2004, 29, 376-384.	3.5	42
134	Attaching Organic Semiconductors to Gate Oxides:Â In Situ Assembly of Monolayer Field Effect Transistors. Journal of the American Chemical Society, 2004, 126, 15048-15050.	13.7	130
135	Charge Transfer on the Nanoscale:â€‰ Current Status. Journal of Physical Chemistry B, 2003, 107, 6668-6697.	2.6	946
136	Layer-By-Layer Growth of Metalâ^'Metal Bonded Supramolecular Thin Films and Its Use in the Fabrication of Lateral Nanoscale Devices. Journal of the American Chemical Society, 2003, 125, 336-337.	13.7	97
137	Design, Structure, and Optical Properties of Organicâ^'Inorganic Perovskites Containing an Oligothiophene Chromophore. Inorganic Chemistry, 1999, 38, 6246-6256.	4.0	314
138	Unraveling the Self-Assembly Pathway of Binary Nanocrystal Superlattices. , 0, , .		0
139	In-line Production of Colloidal Microlasers. , 0, , .		0