

Cherie R Kagan

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119
papers

10,830
citations

50
h-index

103
g-index

142
ext. papers

12,006
ext. citations

14.2
avg, IF

6.48
L-index

#	Paper	IF	Citations
119	Charge Transfer on the Nanoscale: Current Status. <i>Journal of Physical Chemistry B</i> , 2003 , 107, 6668-6697	3.4	895
118	Prospects of nanoscience with nanocrystals. <i>ACS Nano</i> , 2015 , 9, 1012-57	16.7	849
117	Building devices from colloidal quantum dots. <i>Science</i> , 2016 , 353,	33.3	718
116	Improved size-tunable synthesis of monodisperse gold nanorods through the use of aromatic additives. <i>ACS Nano</i> , 2012 , 6, 2804-17	16.7	641
115	Synergism in binary nanocrystal superlattices leads to enhanced p-type conductivity in self-assembled PbTe/Ag ₂ Te thin films. <i>Nature Materials</i> , 2007 , 6, 115-21	27	460
114	Charge transport in strongly coupled quantum dot solids. <i>Nature Nanotechnology</i> , 2015 , 10, 1013-26	28.7	364
113	Bandlike transport in strongly coupled and doped quantum dot solids: a route to high-performance thin-film electronics. <i>Nano Letters</i> , 2012 , 12, 2631-8	11.5	310
112	Wrinkles and deep folds as photonic structures in photovoltaics. <i>Nature Photonics</i> , 2012 , 6, 327-332	33.9	310
111	Thiocyanate-capped nanocrystal colloids: vibrational reporter of surface chemistry and solution-based route to enhanced coupling in nanocrystal solids. <i>Journal of the American Chemical Society</i> , 2011 , 133, 15753-61	16.4	278
110	Design, Structure, and Optical Properties of Organic-Inorganic Perovskites Containing an Oligothiophene Chromophore. <i>Inorganic Chemistry</i> , 1999 , 38, 6246-6256	5.1	264
109	Competition of shape and interaction patchiness for self-assembling nanoplates. <i>Nature Chemistry</i> , 2013 , 5, 466-73	17.6	253
108	Metal-enhanced upconversion luminescence tunable through metal nanoparticle-nanophosphor separation. <i>ACS Nano</i> , 2012 , 6, 8758-66	16.7	240
107	Electrons, Excitons, and Phonons in Two-Dimensional Hybrid Perovskites: Connecting Structural, Optical, and Electronic Properties. <i>Journal of Physical Chemistry Letters</i> , 2018 , 9, 1434-1447	6.4	199
106	Exploiting the colloidal nanocrystal library to construct electronic devices. <i>Science</i> , 2016 , 352, 205-8	33.3	189
105	The state of nanoparticle-based nanoscience and biotechnology: progress, promises, and challenges. <i>ACS Nano</i> , 2012 , 6, 8468-83	16.7	188
104	Stoichiometric control of lead chalcogenide nanocrystal solids to enhance their electronic and optoelectronic device performance. <i>ACS Nano</i> , 2013 , 7, 2413-21	16.7	188
103	Plasmonic enhancement of nanophosphor upconversion luminescence in Au nanohole arrays. <i>ACS Nano</i> , 2013 , 7, 7186-92	16.7	174

102	Designing high-performance PbS and PbSe nanocrystal electronic devices through stepwise, post-synthesis, colloidal atomic layer deposition. <i>Nano Letters</i> , 2014 , 14, 1559-66	11.5	166
101	Thiocyanate-capped PbS nanocubes: ambipolar transport enables quantum dot based circuits on a flexible substrate. <i>Nano Letters</i> , 2011 , 11, 4764-7	11.5	160
100	Flexible and low-voltage integrated circuits constructed from high-performance nanocrystal transistors. <i>Nature Communications</i> , 2012 , 3, 1216	17.4	159
99	Direct Observation of Electron-Phonon Coupling and Slow Vibrational Relaxation in Organic-Inorganic Hybrid Perovskites. <i>Journal of the American Chemical Society</i> , 2016 , 138, 13798-13801	16.4	147
98	Substitutional doping in nanocrystal superlattices. <i>Nature</i> , 2015 , 524, 450-3	50.4	133
97	Attaching organic semiconductors to gate oxides: in situ assembly of monolayer field effect transistors. <i>Journal of the American Chemical Society</i> , 2004 , 126, 15048-50	16.4	124
96	Photocatalytic Hydrogen Evolution from Substoichiometric Colloidal WO ₃ Nanowires. <i>ACS Energy Letters</i> , 2018 , 3, 1904-1910	20.1	109
95	Engineering catalytic contacts and thermal stability: gold/iron oxide binary nanocrystal superlattices for CO oxidation. <i>Journal of the American Chemical Society</i> , 2013 , 135, 1499-505	16.4	107
94	Plasmon-enhanced upconversion luminescence in single nanophosphor-nanorod heterodimers formed through template-assisted self-assembly. <i>ACS Nano</i> , 2014 , 8, 9482-91	16.7	105
93	Solution-processed phase-change VO(2) metamaterials from colloidal vanadium oxide (VO(x)) nanocrystals. <i>ACS Nano</i> , 2014 , 8, 797-806	16.7	96
92	Engineering charge injection and charge transport for high performance PbSe nanocrystal thin film devices and circuits. <i>Nano Letters</i> , 2014 , 14, 6210-6	11.5	90
91	Binary and ternary superlattices self-assembled from colloidal nanodisks and nanorods. <i>Journal of the American Chemical Society</i> , 2015 , 137, 6662-9	16.4	89
90	Roadmap on optical metamaterials. <i>Journal of Optics (United Kingdom)</i> , 2016 , 18, 093005	1.7	89
89	Layer-by-layer growth of metal-metal bonded supramolecular thin films and its use in the fabrication of lateral nanoscale devices. <i>Journal of the American Chemical Society</i> , 2003 , 125, 336-7	16.4	88
88	Flexible colloidal nanocrystal electronics. <i>Chemical Society Reviews</i> , 2019 , 48, 1626-1641	58.5	77
87	Chemical complementarity in the contacts for nanoscale organic field-effect transistors. <i>Journal of the American Chemical Society</i> , 2006 , 128, 1788-9	16.4	76
86	Unbalanced Hole and Electron Diffusion in Lead Bromide Perovskites. <i>Nano Letters</i> , 2017 , 17, 1727-1732	11.5	75
85	Chemically tailored dielectric-to-metal transition for the design of metamaterials from nanoimprinted colloidal nanocrystals. <i>Nano Letters</i> , 2013 , 13, 350-7	11.5	75

84	Bistable magnetoresistance switching in exchange-coupled CoFe ₂ O ₄ /Fe ₃ O ₄ binary nanocrystal superlattices by self-assembly and thermal annealing. <i>ACS Nano</i> , 2013 , 7, 1478-86	16.7	73
83	Multiscale periodic assembly of striped nanocrystal superlattice films on a liquid surface. <i>Nano Letters</i> , 2011 , 11, 841-6	11.5	73
82	Limits of Carrier Diffusion in n-Type and p-Type CH ₃ NH ₃ PbI ₃ Perovskite Single Crystals. <i>Journal of Physical Chemistry Letters</i> , 2016 , 7, 3510-8	6.4	69
81	Small-Molecule Thiophene-C60 Dyads As Compatibilizers in Inverted Polymer Solar Cells. <i>Chemistry of Materials</i> , 2010 , 22, 5762-5773	9.6	61
80	Chemically assisted directed assembly of carbon nanotubes for the fabrication of large-scale device arrays. <i>Journal of the American Chemical Society</i> , 2007 , 129, 11964-8	16.4	60
79	Smectic Nanorod Superlattices Assembled on Liquid Subphases: Structure, Orientation, Defects, and Optical Polarization. <i>Chemistry of Materials</i> , 2015 , 27, 2998-3008	9.6	59
78	Advanced Architecture for Colloidal PbS Quantum Dot Solar Cells Exploiting a CdSe Quantum Dot Buffer Layer. <i>ACS Nano</i> , 2016 , 10, 9267-9273	16.7	59
77	Large-Area Nanoimprinted Colloidal Au Nanocrystal-Based Nanoantennas for Ultrathin Polarizing Plasmonic Metasurfaces. <i>Nano Letters</i> , 2015 , 15, 5254-60	11.5	56
76	High-strength magnetically switchable plasmonic nanorods assembled from a binary nanocrystal mixture. <i>Nature Nanotechnology</i> , 2017 , 12, 228-232	28.7	56
75	Nano Day: Celebrating the Next Decade of Nanoscience and Nanotechnology. <i>ACS Nano</i> , 2016 , 10, 9093-9103	16.3	56
74	Near-infrared metatronic nanocircuits by design. <i>Physical Review Letters</i> , 2013 , 111, 073904	7.4	55
73	Plasmon Resonances in Self-Assembled Two-Dimensional Au Nanocrystal Metamolecules. <i>ACS Nano</i> , 2017 , 11, 2917-2927	16.7	51
72	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. <i>Progress in Solid State Chemistry</i> , 2008 , 36, 1-133	8	51
71	Flexible, low-voltage, and low-hysteresis PbSe nanowire field-effect transistors. <i>ACS Nano</i> , 2011 , 5, 10074-10083	16.7	50
70	Alignment, Electronic Properties, Doping, and On-Chip Growth of Colloidal PbSe Nanowires. <i>Journal of Physical Chemistry C</i> , 2007 , 111, 13244-13249	3.8	50
69	Enforced one-dimensional photoconductivity in core-cladding hexabenzocoronenes. <i>Nano Letters</i> , 2006 , 6, 2838-41	11.5	49
68	In situ repair of high-performance, flexible nanocrystal electronics for large-area fabrication and operation in air. <i>ACS Nano</i> , 2013 , 7, 8275-83	16.7	48
67	Flexible, High-Speed CdSe Nanocrystal Integrated Circuits. <i>Nano Letters</i> , 2015 , 15, 7155-60	11.5	47

66	Air-liquid interfacial self-assembly of conjugated block copolymers into ordered nanowire arrays. <i>ACS Nano</i> , 2014 , 8, 12755-62	16.7	47
65	Deposition of wafer-scale single-component and binary nanocrystal superlattice thin films via dip-coating. <i>Advanced Materials</i> , 2015 , 27, 2846-51	24	45
64	Low-frequency (1/f) noise in nanocrystal field-effect transistors. <i>ACS Nano</i> , 2014 , 8, 9664-72	16.7	43
63	Electrostatic field and partial Fermi level pinning at the pentacene-SiO(2) interface. <i>Journal of Physical Chemistry B</i> , 2005 , 109, 1834-8	3.4	43
62	Longer Cations Increase Energetic Disorder in Excitonic 2D Hybrid Perovskites. <i>Journal of Physical Chemistry Letters</i> , 2019 , 10, 1198-1205	6.4	42
61	Synthesis of N-Type Plasmonic Oxide Nanocrystals and the Optical and Electrical Characterization of their Transparent Conducting Films. <i>Chemistry of Materials</i> , 2014 , 26, 4579-4588	9.6	41
60	Solution-based stoichiometric control over charge transport in nanocrystalline CdSe devices. <i>ACS Nano</i> , 2013 , 7, 8760-70	16.7	41
59	Near-Infrared Absorption of Monodisperse Silver Telluride (Ag ₂ Te) Nanocrystals and Photoconductive Response of Their Self-Assembled Superlattices. <i>Chemistry of Materials</i> , 2011 , 23, 4657-4659	9.6	41
58	Diketopyrrolopyrrole-based bridged donor-acceptor polymer for photovoltaic applications. <i>ACS Applied Materials & Interfaces</i> , 2011 , 3, 3874-83	9.5	41
57	Plasmonic Optical and Chiroptical Response of Self-Assembled Au Nanorod Equilateral Trimers. <i>ACS Nano</i> , 2019 , 13, 1617-1624	16.7	41
56	Molecular Transport Junctions: An Introduction. <i>MRS Bulletin</i> , 2004 , 29, 376-384	3.2	40
55	Hierarchical Materials Design by Pattern Transfer Printing of Self-Assembled Binary Nanocrystal Superlattices. <i>Nano Letters</i> , 2017 , 17, 1387-1394	11.5	37
54	Increased carrier mobility and lifetime in CdSe quantum dot thin films through surface trap passivation and doping. <i>Journal of Physical Chemistry Letters</i> , 2015 , 6, 4605-9	6.4	36
53	Colloidal Quantum Dots as Platforms for Quantum Information Science. <i>Chemical Reviews</i> , 2021 , 121, 3186-3233	68.1	34
52	Air-stable, nanostructured electronic and plasmonic materials from solution-processable, silver nanocrystal building blocks. <i>ACS Nano</i> , 2014 , 8, 2746-54	16.7	33
51	Spectrally-Resolved Dielectric Functions of Solution-Cast Quantum Dot Thin Films. <i>Chemistry of Materials</i> , 2015 , 27, 6463-6469	9.6	29
50	Ambipolar and unipolar PbSe nanowire field-effect transistors. <i>ACS Nano</i> , 2011 , 5, 3230-6	16.7	29
49	Selective p- and n-Doping of Colloidal PbSe Nanowires To Construct Electronic and Optoelectronic Devices. <i>ACS Nano</i> , 2015 , 9, 7536-44	16.7	28

48	Effects of Post-Synthesis Processing on CdSe Nanocrystals and Their Solids: Correlation between Surface Chemistry and Optoelectronic Properties. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 27097-27105	3.8	28
47	Remote doping and Schottky barrier formation in strongly quantum confined single PbSe nanowire field-effect transistors. <i>ACS Nano</i> , 2012 , 6, 4328-34	16.7	28
46	Ambipolar transport in solution-deposited pentacene transistors enhanced by molecular engineering of device contacts. <i>Applied Physics Letters</i> , 2009 , 95, 023301	3.4	28
45	Gate-induced carrier delocalization in quantum dot field effect transistors. <i>Nano Letters</i> , 2014 , 14, 5948-52	5.5	25
44	Device configurations for ambipolar transport in flexible, pentacene transistors. <i>Advanced Materials</i> , 2010 , 22, 5063-8	24	25
43	Nanoimprinted Chiral Plasmonic Substrates with Three-Dimensional Nanostructures. <i>Nano Letters</i> , 2018 , 18, 7389-7394	11.5	25
42	Rapid Large-Scale Assembly and Pattern Transfer of One-Dimensional Gold Nanorod Superstructures. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 25513-25521	9.5	24
41	Ultrasensitive, Mechanically Responsive Optical Metasurfaces via Strain Amplification. <i>ACS Nano</i> , 2018 , 12, 10683-10692	16.7	24
40	The role of chemical contacts in molecular conductance. <i>Nano Letters</i> , 2006 , 6, 2955-8	11.5	23
39	General Synthetic Route to High-Quality Colloidal III-V Semiconductor Quantum Dots Based on Pnictogen Chlorides. <i>Journal of the American Chemical Society</i> , 2019 , 141, 15145-15152	16.4	20
38	Air-Stable CuInSe Nanocrystal Transistors and Circuits via Post-Deposition Cation Exchange. <i>ACS Nano</i> , 2019 , 13, 2324-2333	16.7	19
37	X-ray mapping of nanoparticle superlattice thin films. <i>ACS Nano</i> , 2014 , 8, 12843-50	16.7	18
36	Charge Transport Modulation in PbSe Nanocrystal Solids by Au Ag Nanoparticle Doping. <i>ACS Nano</i> , 2018 , 12, 9091-9100	16.7	16
35	The effects of inorganic surface treatments on photogenerated carrier mobility and lifetime in PbSe quantum dot thin films. <i>Chemical Physics</i> , 2016 , 471, 81-88	2.3	15
34	Tailoring Hot Exciton Dynamics in 2D Hybrid Perovskites through Cation Modification. <i>ACS Nano</i> , 2020 , 14, 3621-3629	16.7	14
33	Ultrafast electron trapping in ligand-exchanged quantum dot assemblies. <i>ACS Nano</i> , 2015 , 9, 1440-7	16.7	14
32	Directional Carrier Transfer in Strongly Coupled Binary Nanocrystal Superlattice Films Formed by Assembly and in Situ Ligand Exchange at a Liquid-Air Interface. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 4146-4157	3.8	13
31	Favoring the Growth of High-Quality, Three-Dimensional Supercrystals of Nanocrystals. <i>Journal of Physical Chemistry C</i> , 2020 , 124, 11256-11264	3.8	12

30	Angle-Independent Optical Moisture Sensors Based on Hydrogel-Coated Plasmonic Lattice Arrays. <i>ACS Applied Nano Materials</i> , 2018 , 1, 1430-1437	5.6	12
29	Designing Strong Optical Absorbers Continuous Tuning of Interparticle Interaction in Colloidal Gold Nanocrystal Assemblies. <i>ACS Nano</i> , 2019 , 13, 7493-7501	16.7	11
28	3D Nanofabrication via Chemo-Mechanical Transformation of Nanocrystal/Bulk Heterostructures. <i>Advanced Materials</i> , 2018 , 30, e1800233	24	11
27	Self-assembly and oligomerization of alkyne-terminated molecules on metal and oxide surfaces. <i>Langmuir</i> , 2005 , 21, 11574-7	4	11
26	The Effect of Dielectric Environment on Doping Efficiency in Colloidal PbSe Nanostructures. <i>ACS Nano</i> , 2018 , 12, 1313-1320	16.7	10
25	Chemo- and Thermomechanically Configurable 3D Optical Metamaterials Constructed from Colloidal Nanocrystal Assemblies. <i>ACS Nano</i> , 2020 , 14, 1427-1435	16.7	10
24	Mapping the Competition between Exciton Dissociation and Charge Transport in Organic Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 28743-28749	9.5	10
23	Alternate current magnetic property characterization of nonstoichiometric zinc ferrite nanocrystals for inductor fabrication via a solution based process. <i>Journal of Applied Physics</i> , 2016 , 119, 113901	2.5	9
22	Molecular monolayers as semiconducting channels in field effect transistors. <i>Topics in Current Chemistry</i> , 2012 , 312, 213-37		8
21	Ink-Lithography for Property Engineering and Patterning of Nanocrystal Thin Films. <i>ACS Nano</i> , 2021 , 15, 15667-15675	16.7	8
20	The dendritic effect and magnetic permeability in dendron coated nickel and manganese zinc ferrite nanoparticles. <i>Nanoscale</i> , 2017 , 9, 13922-13928	7.7	6
19	Self-assembly for electronics. <i>MRS Bulletin</i> , 2020 , 45, 807-814	3.2	6
18	Enhanced Carrier Transport in Strongly Coupled, Epitaxially Fused CdSe Nanocrystal Solids. <i>Nano Letters</i> , 2021 , 21, 3318-3324	11.5	6
17	Comparison of the Energy-Level Alignment of Thiolate- and Carbodithiolate-Bound Self-Assembled Monolayers on Gold. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 20843-20851	3.8	5
16	Grafted Nanoparticle Surface Wetting during Phase Separation in Polymer Nanocomposite Films. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 37628-37637	9.5	5
15	Broadband Circular Polarizers via Coupling in 3D Plasmonic Meta-Atom Arrays. <i>ACS Photonics</i> , 2021 , 8, 1286-1292	6.3	4
14	Nanoscience and Nanotechnology Cross Borders. <i>ACS Nano</i> , 2017 , 11, 1123-1126	16.7	3
13	Nanocomposites of 2D-MoS ₂ Exfoliated in Thermotropic Liquid Crystals 2021 , 3, 704-712		3

12	Monodisperse Nanocrystal Superparticles through a SourceBink Emulsion System. <i>Chemistry of Materials</i> , 2022 , 34, 2779-2789	9.6	3
11	Preparation of silica coated and ⁹⁰ Y-radiolabeled NaYF_4 upconverting nanophosphors for multimodal tracing. <i>Nano Futures</i> , 2018 , 2, 025002	3.6	2
10	Special report: The Internet of Things for Precision Agriculture (IoT4Ag). <i>Computers and Electronics in Agriculture</i> , 2022 , 106742	6.5	2
9	Heavy-Metal-Free Quantum Dot-Based Flexible Electronics. <i>Information Display</i> , 2021 , 37, 24-32	0.8	2
8	Prof. Millie Dresselhaus (1930-2017), Carbon Nanomaterials Pioneer. <i>ACS Nano</i> , 2017 , 11, 2307-2308	16.7	1
7	Flexible organic electronics for use in neural sensing. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2011 , 2011, 5400-3	0.9	1
6	Impurities in Nanocrystal Thin-Film Transistors Fabricated by Cation Exchange. <i>Journal of Physical Chemistry Letters</i> , 2021 , 12, 6514-6518	6.4	1
5	Chemical and Physical Properties of Photonic Noble-metal Nanomaterials.. <i>Advanced Materials</i> , 2021 , e2108104	24	1
4	Dynamic magnetic field alignment and polarized emission of semiconductor nanoplatelets in a liquid crystal polymer.. <i>Nature Communications</i> , 2022 , 13, 2507	17.4	1
3	Electron and hole transport in ambipolar, thin film pentacene transistors. <i>Journal of Applied Physics</i> , 2015 , 117, 035501	2.5	0
2	Electrochemically deposited molybdenum disulfide surfaces enable polymer adsorption studies using quartz crystal microbalance with dissipation monitoring (QCM-D).. <i>Journal of Colloid and Interface Science</i> , 2022 , 614, 522-531	9.3	0
1	Nanocrystal Superparticles with Whispering-Gallery Modes Tunable through Chemical and Optical Triggers. <i>Nano Letters</i> ,	11.5	0