Uwe R Kortshagen

List of Publications by Year
in descending order

261 papers	14,352 citations	19636 61 h-index	22808 112 g-index
268 all docs	268 docs citations	268 times ranked	11190 citing authors

#	Article	IF	Citations
1	Photosensitization of ZnO Nanowires with CdSe Quantum Dots for Photovoltaic Devices. Nano Letters, 2007, 7, 1793-1798.	4.5	935
2	The 2017 Plasma Roadmap: Low temperature plasma science and technology. Journal Physics D: Applied Physics, 2017, 50, 323001.	1.3	710
3	High-Yield Plasma Synthesis of Luminescent Silicon Nanocrystals. Nano Letters, 2005, 5, 655-659.	4.5	668
4	The 2012 Plasma Roadmap. Journal Physics D: Applied Physics, 2012, 45, 253001.	1.3	511
5	Silicon nanocrystals with ensemble quantum yields exceeding 60%. Applied Physics Letters, 2006, 88, 233116.	1.5	391
6	Hybrid Solar Cells from P3HT and Silicon Nanocrystals. Nano Letters, 2009, 9, 449-452.	4.5	379
7	Nanoscale design to enable the revolution in renewable energy. Energy and Environmental Science, 2009, 2, 559.	15.6	348
8	High-Efficiency Silicon Nanocrystal Light-Emitting Devices. Nano Letters, 2011, 11, 1952-1956.	4.5	337
9	Highly efficient luminescent solar concentrators based on earth-abundant indirect-bandgap silicon quantum dots. Nature Photonics, 2017, 11, 177-185.	15.6	319
10	Universal Size-Dependent Trend in Auger Recombination in Direct-Gap and Indirect-Gap Semiconductor Nanocrystals. Physical Review Letters, 2009, 102, 177404.	2.9	314
11	Nonthermal Plasma Synthesis of Nanocrystals: Fundamental Principles, Materials, and Applications. Chemical Reviews, 2016, 116, 11061-11127.	23.0	309
12	Plasmaâ€Assisted Synthesis of Silicon Nanocrystal Inks. Advanced Materials, 2007, 19, 2513-2519.	11.1	242
13	Nonthermal plasma synthesis of semiconductor nanocrystals. Journal Physics D: Applied Physics, 2009, 42, 113001.	1.3	234
14	On the E - H mode transition in RF inductive discharges. Journal Physics D: Applied Physics, 1996, 29, 1224-1236.	1.3	200
15	On simplifying approaches to the solution of the Boltzmann equation in spatially inhomogeneous plasmas. Plasma Sources Science and Technology, 1996, 5, 1-17.	1.3	187
16	Doping efficiency, dopant location, and oxidation of Si nanocrystals. Applied Physics Letters, 2008, 92, .	1.5	186
17	Modeling of particulate coagulation in low pressure plasmas. Physical Review E, 1999, 60, 887-898.	0.8	185
18	Phosphorus-Doped Silicon Nanocrystals Exhibiting Mid-Infrared Localized Surface Plasmon Resonance. Nano Letters, 2013, 13, 1317-1322.	4.5	165

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19	Radial structure of a low-frequency atmospheric-pressure glow discharge in helium. Applied Physics Letters, 2002, 80, 1722-1724.	1.5	150
20	Size-Dependent Intrinsic Radiative Decay Rates of Silicon Nanocrystals at Large Confinement Energies. Physical Review Letters, 2008, 100, 067401.	2.9	147
21	Effects of current limitation through the dielectric in atmospheric pressure glows in helium. Journal Physics D: Applied Physics, 2004, 37, 1021-1030.	1.3	137
22	On the Origin of Photoluminescence in Silicon Nanocrystals: Pressure-Dependent Structural and Optical Studies. Nano Letters, 2012, 12, 4200-4205.	4.5	133
23	Hybrid Silicon Nanocrystalâ˘'Organic Light-Emitting Devices for Infrared Electroluminescence. Nano Letters, 2010, 10, 1154-1157.	4.5	132
24	Plasmonic Properties of Silicon Nanocrystals Doped with Boron and Phosphorus. Nano Letters, 2015, 15, 5597-5603.	4.5	130
25	Air-stable full-visible-spectrum emission from silicon nanocrystals synthesized by an all-gas-phase plasma approach. Nanotechnology, 2008, 19, 245603.	1.3	126
26	Optimization of Si NC/P3HT Hybrid Solar Cells. Advanced Functional Materials, 2010, 20, 2157-2164.	7.8	125
27	Selective nanoparticle heating: Another form of nonequilibrium in dusty plasmas. Physical Review E, 2009, 79, 026405.	0.8	121
28	Germanium and Silicon Nanocrystal Thin-Film Field-Effect Transistors from Solution. Nano Letters, 2010, 10, 2661-2666.	4.5	119
29	Modelling of silicon hydride clustering in a low-pressure silane plasma. Journal Physics D: Applied Physics, 2000, 33, 2731-2746.	1.3	115
30	Nonthermal plasma synthesis of size-controlled, monodisperse, freestanding germanium nanocrystals. Applied Physics Letters, 2007, 91, 093119.	1.5	113
31	Plasma chemistry and growth of nanosized particles in a C2H2RF discharge. Journal Physics D: Applied Physics, 2001, 34, 2160-2173.	1.3	112
32	Room-temperature atmospheric oxidation of Si nanocrystals after HF etching. Physical Review B, 2007, 75, .	1.1	112
33	Photoluminescence quantum yields of amorphous and crystalline silicon nanoparticles. Physical Review B, 2009, 80, .	1.1	111
34	Hypervalent surface interactions for colloidal stability and doping of silicon nanocrystals. Nature Communications, 2013, 4, 2197.	5.8	107
35	Plasma synthesis of single-crystal silicon nanoparticles for novel electronic device applications. Plasma Physics and Controlled Fusion, 2004, 46, B97-B109.	0.9	103
36	Spatial variation of the electron distribution function in a rf inductively coupled plasma: Experimental and theoretical study. Journal of Applied Physics, 1994, 76, 2048-2058.	1.1	102

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37	Two-dimensional numerical study of atmospheric pressure glows in helium with impurities. Journal Physics D: Applied Physics, 2006, 39, 153-163.	1.3	100
38	Plasma synthesis and liquid-phase surface passivation of brightly luminescent Si nanocrystals. Journal of Luminescence, 2006, 121, 327-334.	1.5	98
39	Metalâ€"insulator transition in films of doped semiconductor nanocrystals. Nature Materials, 2016, 15, 299-303.	13.3	96
40	Experimental investigation and fast two-dimensional self-consistent kinetic modeling of a low-pressure inductively coupled rf discharge. Physical Review E, 1995, 51, 6063-6078.	0.8	95
41	Ensemble Brightening and Enhanced Quantum Yield in Size-Purified Silicon Nanocrystals. ACS Nano, 2012, 6, 7389-7396.	7.3	92
42	Heat transferâ€"A review of 2005 literature. International Journal of Heat and Mass Transfer, 2010, 53, 4397-4447.	2.5	85
43	Plasma-induced crystallization of silicon nanoparticles. Journal Physics D: Applied Physics, 2014, 47, 075202.	1.3	83
44	Heat transferâ€"A review of 2003 literature. International Journal of Heat and Mass Transfer, 2006, 49, 451-534.	2.5	82
45	Analytical model of particle charging in plasmas over a wide range of collisionality. Physical Review E, 2008, 78, 046402.	0.8	80
46	Highly Luminescent ZnO Quantum Dots Made in a Nonthermal Plasma. Advanced Functional Materials, 2014, 24, 1988-1993.	7.8	80
47	Controlled Doping of Silicon Nanocrystals Investigated by Solution-Processed Field Effect Transistors. ACS Nano, 2014, 8, 5650-5656.	7.3	78
48	Modeling of microwave discharges in the presence of plasma resonances. Physical Review E, 1995, 51, 6091-6103.	0.8	77
49	High electron mobility in thin films formed via supersonic impact deposition of nanocrystals synthesized in nonthermal plasmas. Nature Communications, 2014, 5, 5822.	5.8	77
50	Synthesis of highly oriented, single-crystal silicon nanoparticles in a low-pressure, inductively coupled plasma. Journal of Applied Physics, 2003, 94, 1969-1974.	1.1	74
51	Routes to Achieving High Quantum Yield Luminescence from Gasâ€Phaseâ€Produced Silicon Nanocrystals. Advanced Functional Materials, 2011, 21, 4042-4046.	7.8	74
52	A flexible method for depositing dense nanocrystal thin films: impaction of germanium nanocrystals. Nanotechnology, 2010, 21, 335302.	1.3	72
53	Fabrication of vertically aligned single-walled carbon nanotubes in atmospheric pressure non-thermal plasma CVD. Carbon, 2007, 45, 364-374.	5.4	71
54	Ion energy distribution functions in a planar inductively coupled RF discharge. Plasma Sources Science and Technology, 1995, 4, 541-550.	1.3	69

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55	Experimental evidence on the nonlocality of the electron distribution function. Physical Review E, 1994, 49, 4369-4380.	0.8	68
56	Numerical solution of the spatially inhomogeneous Boltzmann equation and verification of the nonlocal approach for an argon plasma. Physical Review E, 1995, 51, 280-288.	0.8	68
57	Tunability Limit of Photoluminescence in Colloidal Silicon Nanocrystals. Scientific Reports, 2015, 5, 12469.	1.6	68
58	An All-Gas-Phase Approach for the Fabrication of Silicon Nanocrystal Light-Emitting Devices. Nano Letters, 2012, 12, 2822-2825.	4.5	66
59	Experimental study of diffusive cooling of electrons in a pulsed inductively coupled plasma. Physical Review E, 2002, 65, 056405.	0.8	65
60	Oxidation of freestanding silicon nanocrystals probed with electron spin resonance of interfacial dangling bonds. Physical Review B, 2011, 83, .	1.1	63
61	Comparison of Monte Carlo simulations and nonlocal calculations of the electron distribution function in a positive column plasma. Physical Review E, 1996, 54, 6746-6761.	0.8	62
62	Nonthermal plasma synthesized freestanding siliconâ€“germanium alloy nanocrystals. Nanotechnology, 2009, 20, 295602.	1.3	62
63	Nonequilibrium-Plasma-Synthesized ZnO Nanocrystals with Plasmon Resonance Tunable via Al Doping and Quantum Confinement. Nano Letters, 2015, 15, 8162-8169.	4.5	62
64	Numerical study of the effect of gas temperature on the time for onset of particle nucleation in argonâ€“silane low-pressure plasmas. Journal Physics D: Applied Physics, 2003, 36, 1399-1408.	1.3	61
65	Silicon Quantum Dotâ€“Poly(methyl methacrylate) Nanocomposites with Reduced Light Scattering for Luminescent Solar Concentrators. ACS Photonics, 2019, 6, 170-180.	3.2	58
66	Plasma-driven solution electrolysis. Journal of Applied Physics, 2021, 129, .	1.1	58
67	Heat transferâ€“â€“a review of 2001 literature. International Journal of Heat and Mass Transfer, 2003, 46, 1887-1992.	2.5	55
68	Dispersion characteristics and radial field distribution of surface waves in the collisional regime. Journal Physics D: Applied Physics, 1992, 25, 1574-1582.	1.3	54
69	Heat transferâ€"a review of 2002 literature. International Journal of Heat and Mass Transfer, 2005, 48, 819-927.	2.5	52
70	A plasma process for the synthesis of cubic-shaped silicon nanocrystals for nanoelectronic devices. Journal Physics D: Applied Physics, 2007, 40, 2247-2257.	1.3	51
71	On the influence of Coulomb collisions on the electron energy distribution function of surface wave produced argon plasmas. Journal Physics D: Applied Physics, 1992, 25, 644-651.	1.3	50
72	Heat transferâ€"A review of 2004 literature. International Journal of Heat and Mass Transfer, 2010, 53, 4343-4396.	2.5	50

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73	Fast twoâ€dimensional selfâ€consistent kinetic modeling of lowâ€pressure inductively coupled RF discharges. Applied Physics Letters, 1994, 65, 1355-1357.	1.5	49
74	Electron and ion distribution functions in RF and microwave plasmas. Plasma Sources Science and Technology, 1995, 4, 172-182.	1.3	49
75	A non-local kinetic model applied to microwave produced plasmas in cylindrical geometry. Journal Physics D: Applied Physics, 1993, 26, 1691-1699.	1.3	47
76	Formation of highly uniform silicon nanoparticles in high density silane plasmas. Journal of Applied Physics, 2003, 94, 2277-2283.	1.1	46
77	A Silicon Nanocrystal Schottky Junction Solar Cell produced from Colloidal Silicon Nanocrystals. Nanoscale Research Letters, 2010, 5, 1253-1256.	3.1	46
78	Tunable Band Gap Emission and Surface Passivation of Germanium Nanocrystals Synthesized in the Gas Phase. Journal of Physical Chemistry Letters, 2013, 4, 3392-3396.	2.1	45
79	Tuning Nanocrystal Surface Depletion by Controlling Dopant Distribution as a Route Toward Enhanced Film Conductivity. Nano Letters, 2018, 18, 2870-2878.	4.5	45
80	Electron energy distribution function in a microwave discharge created by propagating surface waves. Journal Physics D: Applied Physics, 1994, 27, 301-311.	1.3	44
81	Single nanoparticle semiconductor devices. IEEE Transactions on Electron Devices, 2006, 53, 2525-2531.	1.6	44
82	Nanocrystal Inks without Ligands: Stable Colloids of Bare Germanium Nanocrystals. Nano Letters, 2011, 11, 2133-2136.	4.5	44
83	Langmuir probe measurements of electron energy probability functions in dusty plasmas. Journal Physics D: Applied Physics, 2015, 48, 105204.	1.3	44
84	Determination of electron energy distribution functions in surface wave produced plasmas. I. Modelling. Journal Physics D: Applied Physics, 1991, 24, 1571-1584.	1.3	43
85	Doped Silicon Nanocrystal Plasmonics. ACS Photonics, 2017, 4, 963-970.	3.2	43
86	Nonthermal Plasma Synthesis of Titanium Nitride Nanocrystals with Plasmon Resonances at Near-Infrared Wavelengths Relevant to Photothermal Therapy. ACS Applied Nano Materials, 2018, 1, 2869-2876.	2.4	43
87	Bright Silicon Nanocrystals from a Liquid Precursor: Quasi-Direct Recombination with High Quantum Yield. ACS Nano, 2020, 14, 3858-3867.	7.3	43
88	High efficiency photoluminescence from silicon nanocrystals prepared by plasma synthesis and organic surface passivation. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 3975-3978.	0.8	42
89	Nonthermal Plasma Synthesis of Core/Shell Quantum Dots: Strained Ge/Si Nanocrystals. ACS Applied Materials & Interfaces, 2017, 9, 8263-8270.	4.0	42
90	Two-dimensional space-time-resolved emission spectroscopy on atmospheric pressure glows in helium with impurities. Journal of Applied Physics, 2004, 96, 1835-1839.	1.1	40

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91	Electroluminescence from surface oxidized silicon nanoparticles dispersed within a polymer matrix. Applied Physics Letters, 2007, 90, 061116.	1.5	40
92	On the efficiency of the electron sheath heating in capacitively coupled radio frequency discharges in the weakly collisional regime. Applied Physics Letters, 1995, 67, 191-193.	1.5	39
93	Temperature Dependent Photoluminescence of Size-Purified Silicon Nanocrystals. ACS Applied Materials & Interfaces, 2013, 5, 4233-4238.	4.0	39
94	Determination of electron energy distribution functions in surface wave produced plasmas. II. Measurements. Journal Physics D: Applied Physics, 1991, 24, 1585-1593.	1.3	38
95	Enhanced Luminescent Stability through Particle Interactions in Silicon Nanocrystal Aggregates. ACS Nano, 2015, 9, 9772-9782.	7.3	37
96	Nonthermal Plasma Synthesis of Nanocrystals: Fundamentals, Applications, and Future Research Needs. Plasma Chemistry and Plasma Processing, 2016, 36, 73-84.	1.1	37
97	Comparative toxicity assessment of novel Si quantum dots and their traditional Cd-based counterparts using bacteria models <i>Shewanella oneidensis</i> and <i>Bacillus subtilis</i>. Environmental Science: Nano, 2018, 5, 1890-1901.	2.2	37
98	Solution-Processed Germanium Nanocrystal Thin Films as Materials for Low-Cost Optical and Electronic Devices. Langmuir, 2009, 25, 11883-11889.	1.6	36
99	Poly(methyl methacrylate) Films with High Concentrations of Silicon Quantum Dots for Visibly Transparent Luminescent Solar Concentrators. ACS Applied Materials & Interfaces, 2020, 12, 4572-4578.	4.0	36
100	Self-consistent Monte Carlo simulations of the positive column of gas discharges. Journal Physics D: Applied Physics, 1999, 32, 3188-3198.	1.3	35
101	Requirements for plasma synthesis of nanocrystals at atmospheric pressures. Journal Physics D: Applied Physics, 2015, 48, 035205.	1.3	34
102	Abrupt Size Partitioning of Multimodal Photoluminescence Relaxation in Monodisperse Silicon Nanocrystals. ACS Nano, 2017, 11, 1597-1603.	7.3	34
103	Heat transfer â€" a review of 2000 literature. International Journal of Heat and Mass Transfer, 2002, 45, 2853-2957.	2.5	32
104	In-flight dry etching of plasma-synthesized silicon nanocrystals. Applied Physics Letters, 2007, 91, .	1.5	32
105	Carrier Transport in Films of Alkyl-Ligand-Terminated Silicon Nanocrystals. Journal of Physical Chemistry C, 2014, 118, 19580-19588.	1.5	32
106	Thomson scattering measurements in atmospheric plasma jets. Physical Review E, 1999, 59, 2286-2291.	0.8	31
107	Ultrafast Photoluminescence in Quantum-Confined Silicon Nanocrystals Arises from an Amorphous Surface Layer. ACS Photonics, 2014, 1, 960-967.	3.2	31
108	On the influence of energy transfer efficiency on the electron energy distribution function in HF sustained rare gas plasmas: experimental and numerical study. Journal Physics D: Applied Physics, 1993, 26, 1230-1238.	1.3	30

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109	Analysis of Thomson scattered light from an arc plasma jet. Physical Review E, 2002, 65, 046411.	0.8	30
110	ZnO Nanocrystal Networks Near the Insulatorâ€“Metal Transition: Tuning Contact Radius and Electron Density with Intense Pulsed Light. Nano Letters, 2017, 17, 4634-4642.	4.5	30
111	On the radial distribution and nonambipolarity of charged particle fluxes in a nonmagnetized planar inductively coupled plasma. Journal of Applied Physics, 1996, 80, 6639-6645.	1.1	29
112	A New Generation of Primary Luminescent Thermometers Based on Silicon Nanoparticles and Operating in Different Media. Particle and Particle Systems Characterization, 2016, 33, 740-748.	1.2	29
113	Generation and growth of nanoparticles in low-pressure plasmas. Pure and Applied Chemistry, 1999, 71, 1871-1877.	0.9	28
114	Plasma synthesis of semiconductor nanocrystals for nanoelectronics and luminescence applications. Journal of Nanoparticle Research, 2006, 9, 39-52.	0.8	28
115	SF₆plasma etching of silicon nanocrystals. Nanotechnology, 2009, 20, 035603.	1.3	28
116	Structural and electronic properties of dual plasma codeposited mixed-phase amorphous/nanocrystalline thin films. Journal of Applied Physics, 2010, 107, .	1.1	28
117	On the influence of excited atoms on the electron kinetics of a surface wave sustained argon plasma. Plasma Sources Science and Technology, 1994, 3, 80-87.	1.3	27
118	Thermodynamic Driving Force in the Spontaneous Formation of Inorganic Nanoparticle Solutions. Nano Letters, 2018, 18, 1888-1895.	4.5	27
119	Surface chemistry dependence of native oxidation formation on silicon nanocrystals. Journal of Applied Physics, 2009, 106, 064313.	1.1	25
120	Combined plasma gas-phase synthesis and colloidal processing of InP/ZnS core/shell nanocrystals. Nanoscale Research Letters, 2011, 6, 68.	3.1	25
121	Plasma synthesis of group IV quantum dots for luminescence and photovoltaic applications. Pure and Applied Chemistry, 2008, 80, 1901-1908.	0.9	24
122	High Quantum Yield Dual Emission from Gas-Phase Grown Crystalline Si Nanoparticles. Journal of Physical Chemistry C, 2014, 118, 10375-10383.	1.5	24
123	Surface Structure and Silicon Nanocrystal Photoluminescence: The Role of Hypervalent Silyl Groups. Journal of Physical Chemistry C, 2015, 119, 26683-26691.	1.5	24
124	Size and structural characterization of Si nanocrystal aggregates from a low pressure nonthermal plasma reactor. Powder Technology, 2020, 373, 164-173.	2.1	24
125	Pulsed discharges produced by high-power surface waves. Journal Physics D: Applied Physics, 1996, 29, 369-377.	1.3	23
126	Electrical characterization of amorphous silicon nanoparticles. Journal of Applied Physics, 2004, 96, 2204-2209.	1.1	23

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127	Charging, Coagulation, and Heating Model of Nanoparticles in a Low-Pressure Plasma Accounting for Ionâ€"Neutral Collisions. IEEE Transactions on Plasma Science, 2010, 38, 803-809.	0.6	23
128	Effects of Water Adsorption and Surface Oxidation on the Electrical Conductivity of Silicon Nanocrystal Films. Journal of Physical Chemistry C, 2013, 117, 4211-4218.	1.5	23
129	Broadband Absorbing Excitonâ€"Plasmon Metafluids with Narrow Transparency Windows. Nano Letters, 2016, 16, 1472-1477.	4.5	23
130	Aluminum Oxide Nanoparticle Films Deposited from a Nonthermal Plasma: Synthesis, Characterization, and Crystallization. ACS Omega, 2020, 5, 24754-24761.	1.6	23
131	Kinetic two-dimensional modeling of inductively coupled plasmas based on a hybrid kinetic approach. IEEE Transactions on Plasma Science, 1999, 27, 1297-1309.	0.6	22
132	On the influence of metastable atoms on surface-wave produced helium plasmas. Journal Physics D: Applied Physics, 1994, 27, 1470-1479.	1.3	21
133	Experimental investigations into the formation of nanoparticles in aâˆ•nc-Si:H thin films. Journal of Applied Physics, 2005, 97, 034310.	1.1	21
134	Absolute absorption cross sections of ligand-free colloidal germanium nanocrystals. Applied Physics Letters, 2012, 100, .	1.5	21
135	Freestanding silicon nanocrystals with extremely low defect content. Physical Review B, 2012, 86, .	1.1	21
136	Nonthermal plasma synthesis of metal sulfide nanocrystals from metalorganic vapor and elemental sulfur. Journal Physics D: Applied Physics, 2015, 48, 314004.	1.3	21
137	Enhancing Silicon Nanocrystal Photoluminescence through Temperature and Microstructure. Journal of Physical Chemistry C, 2016, 120, 18909-18916.	1.5	21
138	Phase separation and the â€˜coffee-ringâ€™ effect in polymerâ€"nanocrystal mixtures. Soft Matter, 2014, 10, 1665.	1.2	20
139	Silicon Nanocrystals at Elevated Temperatures: Retention of Photoluminescence and Diamond Silicon to Î²-Silicon Carbide Phase Transition. ACS Nano, 2014, 8, 9219-9223.	7.3	20
140	Aerosol-Phase Synthesis and Processing of Luminescent Silicon Nanocrystals. Chemistry of Materials, 2019, 31, 8451-8458.	3.2	20
141	Plasticity responses in ultra-small confined cubes and films. Acta Materialia, 2006, 54, 4515-4523.	3.8	19
142	Generation of hot carrier population in colloidal silicon quantum dots for high-efficiency photovoltaics. Solar Energy Materials and Solar Cells, 2016, 145, 391-396.	3.0	19
143	Heat transfer â€" a review of 1997 literature. International Journal of Heat and Mass Transfer, 2000, 43, 2431-2528.	2.5	18
144	Deposition of vertically oriented carbon nanofibers in atmospheric pressure radio frequency discharge. Journal of Applied Physics, 2006, 99, 024310.	1.1	18

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145	Plasma synthesis of stoichiometric Cu2S nanocrystals stabilized by oleylamine. Chemical Communications, 2014, 50, 8346.	2.2	18
146	Photostability of thermally-hydrosilylated silicon quantum dots. RSC Advances, 2015, 5, 103822-103828.	1.7	18
147	Experimental study of the influence of nanoparticle generation on the electrical characteristics of argonâ€"silane capacitive radio-frequency plasmas. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2002, 20, 153-159.	0.9	17
148	Recent progress in the understanding of electron kinetics in low-pressure inductive plasmas. Applied Surface Science, 2002, 192, 244-257.	3.1	17
149	Nonlocal kinetics of the electrons in a low-pressure afterglow plasma. Physical Review E, 2006, 73, 056402.	0.8	17
150	Boron- and phosphorus-doped silicon germanium alloy nanocrystalsâ€"Nonthermal plasma synthesis and gas-phase thin film deposition. APL Materials, 2014, 2, .	2.2	17
151	Investigations of the 147 nm radiative efficiency of Xe surface wave discharges. Journal of Applied Physics, 1997, 81, 1087-1092.	1.1	16
152	On the use of dust plasma acoustic waves for the diagnostic of nanometer-sized contaminant particles in plasmas. Applied Physics Letters, 1997, 71, 208-210.	1.5	16
153	UV and air stability of high-efficiency photoluminescent silicon nanocrystals. Applied Surface Science, 2014, 323, 54-58.	3.1	16
154	Metal-insulator transition in a semiconductor nanocrystal network. Science Advances, 2019, 5, eaaw1462.	4.7	16
155	Heat transfer: a review of 1998 literature. International Journal of Heat and Mass Transfer, 2001, 44, 253-366.	2.5	15
156	Plasma production of nanodevice-grade semiconductor nanocrystals. Journal Physics D: Applied Physics, 2011, 44, 174009.	1.3	15
157	Obtaining Structural Parameters from STEMâ€"EDX Maps of Core/Shell Nanocrystals for Optoelectronics. ACS Applied Nano Materials, 2018, 1, 989-996.	2.4	15
158	Generation of nano-sized free standing single crystal silicon particles. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2004, 22, 1923.	1.6	14
159	Observation of Si nanocrystals in a/nc-Si:H films by spherical-aberration corrected transmission electron microscopy. Journal of Non-Crystalline Solids, 2004, 343, 78-84.	1.5	14
160	Quantum confinement in germanium nanocrystal thin films. Physica Status Solidi - Rapid Research Letters, 2011, 5, 110-112.	1.2	14
161	Luminescent, water-soluble silicon quantum dots via micro-plasma surface treatment. Journal Physics D: Applied Physics, 2016, 49, 08LT02.	1.3	14
162	Near-Infrared Plasmonic Copper Nanocups Fabricated by Template-Assisted Magnetron Sputtering. ACS Photonics, 2017, 4, 2881-2890.	3.2	14

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163	Toxicity Evaluation of Boron- and Phosphorus-Doped Silicon Nanocrystals toward Shewanella oneidensis MR-1. ACS Applied Nano Materials, 2018, 1, 4884-4893.	2.4	14
164	Bilayer Luminescent Solar Concentrators with Enhanced Absorption and Efficiency for Agrivoltaic Applications. ACS Applied Energy Materials, 2021, 4, 14102-14110.	2.5	14
165	The electrical charging of micron-sized dust particles in a capacitively coupled RF plasma. Physics Letters, Section A: General, Atomic and Solid State Physics, 1996, 217, 126-132.	0.9	13
166	Accurate determination of the size distribution of Si nanocrystals from PL spectra. RSC Advances, 2015, 5, 55119-55125.	1.7	13
167	Analytical study of the influence of electron-electron collisions on the high energy part of the electron energy distribution function. Physica Scripta, 1992, 46, 450-456.	1.2	12
168	Energy-resolved electron particle and energy fluxes in positive column plasmas. Journal Physics D: Applied Physics, 1999, 32, 2737-2745.	1.3	12
169	Modeling gas-phase nucleation in inductively coupled silane-oxygen plasmas. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2003, 21, 251-264.	0.9	12
170	Hybrid solar cells from MDMO-PPV and silicon nanocrystals. Nanoscale, 2012, 4, 3963.	2.8	12
171	Controlled synthesis of germanium nanoparticles by nonthermal plasmas. Applied Physics Letters, 2016, 108, .	1.5	12
172	Nonthermal Plasma-Enhanced Chemical Vapor Deposition of Two-Dimensional Molybdenum Disulfide. ACS Omega, 2020, 5, 21853-21861.	1.6	11
173	A radiometric investigation of lowâ€pressure rf sulfur discharges. Journal of Applied Physics, 1996, 79, 7523-7528.	1.1	10
174	Ultrafast Silicon Photonics with Visible to Mid-Infrared Pumping of Silicon Nanocrystals. Nano Letters, 2017, 17, 6409-6414.	4.5	10
175	Quasi continuous wave laser sintering of Si-Ge nanoparticles for thermoelectrics. Journal of Applied Physics, 2018, 123, 094301.	1.1	10
176	Determination of nanoparticle collision cross section distribution functions in low pressure plasma synthesis reactors via ion mobility spectrometry. Nano Futures, 2019, 3, 015002.	1.0	10
177	Inductively coupled nonthermal plasma synthesis of aluminum nanoparticles. Nanotechnology, 2021, 32, .	1.3	10
178	Sizeâ€dependent evolution of phonon confinement in colloidal Si nanoparticles. Journal of Raman Spectroscopy, 2015, 46, 1110-1116.	1.2	9
179	Influence of the surface termination on the light emission of crystalline silicon nanoparticles. Nanotechnology, 2016, 27, 325703.	1.3	9
180	Variable range hopping conduction in ZnO nanocrystal thin films. Nanotechnology, 2018, 29, 415202.	1.3	9

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181	High temperature thermoelectric properties of laser sintered thin films of phosphorous-doped silicon-germanium nanoparticles. AIP Advances, 2019, 9, .	0.6	9
182	Heat transferâ€"a review of 1995 literature. International Journal of Heat and Mass Transfer, 1999, 42, 2717-2797.	2.5	8
183	Quantum confinement in mixed phase silicon thin films grown by co-deposition plasma processing. Solar Energy Materials and Solar Cells, 2014, 129, 7-12.	3.0	8
184	Laser light scattering from silicon particles generated in an argon diluted silane plasma. Journal Physics D: Applied Physics, 2016, 49, 085203.	1.3	8
185	Atmospheric-pressure glow plasma synthesis of plasmonic and photoluminescent zinc oxide nanocrystals. Journal of Applied Physics, 2016, 119, 243302.	1.1	8
186	Separation Control Using Plasma Actuators: Steady Flow in Low Pressure Turbines. , 2011, , .		7
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