Jonathan G C Veinot

List of Publications by Year
in descending order

131	5,821	76294	82499
papers	citations	40 h-index	72 g-index

146	146	146	6123
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Hydrogen Silsesquioxane:â€‰ A Molecular Precursor for Nanocrystalline Siâ^'SiO2 Composites and Freestanding Hydride-Surface-Terminated Silicon Nanoparticles. Chemistry of Materials, 2006, 18, 6139-6146.	3.2	362
2	Size vs Surface: Tuning the Photoluminescence of Freestanding Silicon Nanocrystals Across the Visible Spectrum via Surface Groups. ACS Nano, 2014, 8, 9636-9648.	7.3	293
3	Chemical Insight into the Origin of Red and Blue Photoluminescence Arising from Freestanding Silicon Nanocrystals. ACS Nano, 2013, 7, 2676-2685.	7.3	267
4	Synthesis, surface functionalization, and properties of freestanding silicon nanocrystals. Chemical Communications, 2006, , 4160.	2.2	245
5	Toward the Ideal Organic Light-Emitting Diode. The Versatility and Utility of Interfacial Tailoring by Cross-Linked Siloxane Interlayers. Accounts of Chemical Research, 2005, 38, 632-643.	7.6	238
6	Widespread Nanoparticle-Assay Interference: Implications for Nanotoxicity Testing. PLoS ONE, 2014, 9, e90650.	1.1	225
7	Silicon Nanocrystals and Siliconâ€Polymer Hybrids: Synthesis, Surface Engineering, and Applications. Angewandte Chemie - International Edition, 2016, 55, 2322-2339.	7.2	218
8	Cytotoxicity of surface-functionalized silicon and germanium nanoparticles: the dominant role of surface charges. Nanoscale, 2013, 5, 4870.	2.8	161
9	Near-Unity Internal Quantum Efficiency of Luminescent Silicon Nanocrystals with Ligand Passivation. ACS Nano, 2015, 9, 7097-7104.	7.3	118
10	Luminescent Transparent Wood. Advanced Optical Materials, 2017, 5, 1600834.	3.6	116
11	An Investigation into Near-UV Hydrosilylation of Freestanding Silicon Nanocrystals. ACS Nano, 2010, 4, 4645-4656.	7.3	112
12	Influence of HSiO_{1.5} Solâ^'Gel Polymer Structure and Composition on the Size and Luminescent Properties of Silicon Nanocrystals. Chemistry of Materials, 2009, 21, 5426-5434.	3.2	106
13	An Investigation of the Formation and Growth of Oxide-Embedded Silicon Nanocrystals in Hydrogen Silsesquioxane-Derived Nanocomposites. Journal of Physical Chemistry C, 2007, 111, 6956-6961.	1.5	101
14	Toxicity of silver nanoparticles against bacteria, yeast, and algae. Journal of Nanoparticle Research, 2015, 17, 1.	0.8	94
15	Detection of high-energy compounds using photoluminescent silicon nanocrystal paper based sensors. Nanoscale, 2014, 6, 2608-2612.	2.8	88
16	Synthesis and Photoluminescent Properties of Size-Controlled Germanium Nanocrystals from Phenyl Trichlorogermane-Derived Polymers. Journal of the American Chemical Society, 2008, 130, 3624-3632.	6.6	87
17	Highly Conducting, Transparent PEDOT:PSS Polymer Electrodes from Postâ€Treatment with Weak and Strong Acids. Advanced Electronic Materials, 2019, 5, 1800654.	2.6	87
18	Surface-Induced Alkene Oligomerization: Does Thermal Hydrosilylation Really Lead to Monolayer Protected Silicon Nanocrystals?. Journal of the American Chemical Society, 2013, 135, 17595-17601.	6.6	83

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19	Mechanistic insights into the effect of nanoparticles on zebrafish hatch. Nanotoxicology, 2014, 8, 295-304.	1.6	83
20	Borane-Catalyzed Room-Temperature Hydrosilylation of Alkenes/Alkynes on Silicon Nanocrystal Surfaces. Journal of the American Chemical Society, 2014, 136, 17914-17917.	6.6	80
21	Exploration of Organic Acid Chain Length on Water-Soluble Silicon Quantum Dot Surfaces. Langmuir, 2010, 26, 15657-15664.	1.6	77
22	Size-Dependent Reactivity in Hydrosilylation of Silicon Nanocrystals. Journal of the American Chemical Society, 2011, 133, 9564-9571.	6.6	77
23	Influence of Halides on the Optical Properties of Silicon Quantum Dots. Chemistry of Materials, 2015, 27, 1153-1156.	3.2	71
24	Low temperature synthesis of silicon carbide nanomaterials using a solid-state method. Chemical Communications, 2013, 49, 7004.	2.2	70
25	Spherical nitrogen-doped hollow mesoporous carbon as an efficient bifunctional electrocatalyst for Znâ€“air batteries. Nanoscale, 2015, 7, 20547-20556.	2.8	68
26	Ultranarrow Luminescence Linewidth of Silicon Nanocrystals and Influence of Matrix. ACS Photonics, 2014, 1, 998-1005.	3.2	67
27	Evolution of the Ultrafast Photoluminescence of Colloidal Silicon Nanocrystals with Changing Surface Chemistry. ACS Photonics, 2015, 2, 595-605.	3.2	60
28	From Hydrogen Silsesquioxane to Functionalized Silicon Nanocrystals. Chemistry of Materials, 2017, 29, 80-89.	3.2	60
29	Silicon nanocrystals for the development of sensing platforms. Journal of Materials Chemistry C, 2016, 4, 4836-4846.	2.7	58
30	Solâ€“gel precursors for group 14 nanocrystals. Chemical Communications, 2010, 46, 8704.	2.2	57
31	Light-Converting Polymer/Si Nanocrystal Composites with Stable 60â€“70% Quantum Efficiency and Their Glass Laminates. ACS Applied Materials & Interfaces, 2017, 9, 30267-30272.	4.0	57
32	Revisiting an Ongoing Debate: What Role Do Surface Groups Play in Silicon Nanocrystal Photoluminescence?. ACS Photonics, 2017, 4, 1920-1929.	3.2	56
33	Highly Luminescent Covalently Linked Silicon Nanocrystal/Polystyrene Hybrid Functional Materials: Synthesis, Properties, and Processability. Advanced Functional Materials, 2014, 24, 1345-1353.	7.8	53
34	Radical Initiated Hydrosilylation on Silicon Nanocrystal Surfaces: An Evaluation of Functional Group Tolerance and Mechanistic Study. Langmuir, 2015, 31, 10540-10548.	1.6	51
35	One-pot synthesis of functionalized germanium nanocrystals from a single source precursor. Nanoscale, 2015, 7, 2241-2244.	2.8	50
36	Size and Surface Effects of Silicon Nanocrystals in Graphene Aerogel Composite Anodes for Lithium Ion Batteries. Chemistry of Materials, 2018, 30, 7782-7792.	3.2	50

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37	Silicon Nanoparticles: Are They Crystalline from the Core to the Surface?. Chemistry of Materials, 2019, 31, 678-688.	3.2	49
38	Preparation of alkyl-surface functionalized germanium quantum dots via thermally initiated hydrogermylationElectronic supplementary information (ESI) available: FT-IR spectra of the hydride terminated reaction intermediate and n-undecyl surface Ge nanoclusters. See http://www.rsc.org/suppdata/cc/b3/b314887d/. Chemical Communications, 2004, , 386.	2.2	48
39	Red States versus Blue States in Colloidal Silicon Nanocrystals: Exciton Sequestration into Low-Density Traps. Journal of Physical Chemistry Letters, 2013, 4, 3806-3812.	2.1	44
40	Alkoxy-Terminated Si Surfaces: A New Reactive Platform for the Functionalization and Derivatization of Silicon Quantum Dots. Journal of the American Chemical Society, 2016, 138, 7114-7120.	6.6	41
41	Detection of nitroaromatics in the solid, solution, and vapor phases using silicon quantum dot sensors. Nanotechnology, 2016, 27, 105501.	1.3	41
42	Regulatory ecotoxicity testing of engineered nanoparticles: are the results relevant to the natural environment?. Nanotoxicology, 2014, 8, 583-592.	1.6	37
43	Water-soluble photoluminescent <scp>d</scp>-mannose and <scp>l</scp>-alanine functionalized silicon nanocrystals and their application to cancer cell imaging. Journal of Materials Chemistry B, 2014, 2, 8427-8433.	2.9	37
44	Charge transfer state emission dynamics in blue-emitting functionalized silicon nanocrystals. Physical Chemistry Chemical Physics, 2015, 17, 30125-30133.	1.3	37
45	Direct Evaluation of the Quantum Confinement Effect in Single Isolated Ge Nanocrystals. Journal of Physical Chemistry Letters, 2015, 6, 3396-3402.	2.1	36
46	Wavelength-Controlled Etching of Silicon Nanocrystals. Chemistry of Materials, 2012, 24, 346-352.	3.2	34
47	Phosphorus Pentachloride Initiated Functionalization of Silicon Nanocrystals. Langmuir, 2017, 33, 8766-8773.	1.6	34
48	A Convenient Method for Preparing Alkyl-Functionalized Silicon Nanocubes. Journal of the American Chemical Society, 2012, 134, 13958-13961.	6.6	32
49	Photothermal Response of Photoluminescent Silicon Nanocrystals. Journal of Physical Chemistry Letters, 2012, 3, 1793-1797.	2.1	32
50	Size-controlled solid state synthesis of luminescent silicon nanocrystals using StÃ¶ber silica particles. CrystEngComm, 2012, 14, 7576.	1.3	31
51	Synthesis and Properties of Luminescent Silicon Nanocrystal/Silica Aerogel Hybrid Materials. Chemistry of Materials, 2016, 28, 3877-3886.	3.2	31
52	Photoluminescence through in-gap states in phenylacetylene functionalized silicon nanocrystals. Nanoscale, 2016, 8, 7849-7853.	2.8	30
53	Radical-Initiated and Thermally Induced Hydrogermylation of Alkenes on the Surfaces of Germanium Nanosheets. Chemistry of Materials, 2018, 30, 2274-2280.	3.2	30
54	Humic acid ameliorates nanoparticle-induced developmental toxicity in zebrafish. Environmental Science: Nano, 2017, 4, 127-137.	2.2	29

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55	Application of nanoparticle tracking analysis for characterising the fate of engineered nanoparticles in sediment-water systems. Journal of Environmental Sciences, 2018, 64, 62-71.	3.2	28
56	Ratiometric Detection of Nerve Agents by Coupling Complementary Properties of Silicon-Based Quantum Dots and Green Fluorescent Protein. ACS Applied Materials & Interfaces, 2019, 11, 33478-33488.	4.0	28
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73	Thermoresponsive and Photoluminescent Hybrid Silicon Nanoparticles by Surfaceâ€Initiated Group Transfer Polymerization of Diethyl Vinylphosphonate. Angewandte Chemie - International Edition, 2014, 53, 12494-12497.	7.2	21
74	Chloride Surface Terminated Silicon Nanocrystal Mediated Synthesis of Poly(3-hexylthiophene). Journal of the American Chemical Society, 2014, 136, 15130-15133.	6.6	21
75	Frustrated Lewis Pair Chelation as a Vehicle for Lowâ€Temperature Semiconductor Element and Polymer Deposition. Angewandte Chemie - International Edition, 2021, 60, 228-231.	7.2	21
76	Interpreting Deposition Behavior of Polydisperse Surface-Modified Nanoparticles Using QCM-D and Sand-Packed Columns. Environmental Engineering Science, 2014, 31, 326-337.	0.8	20
77	Photoluminescent silicon nanocrystal-polymer hybrid materials via surface initiated reversible additionâ€“fragmentation chain transfer (RAFT) polymerization. Nanoscale, 2015, 7, 7811-7818.	2.8	20
78	Lewis Acid Induced Functionalization of Photoluminescent 2D Silicon Nanosheets for the Fabrication of Functional Hybrid Films. Advanced Functional Materials, 2017, 27, 1606764.	7.8	20
79	Ultrabright Fluorescent and Lasing Microspheres from a Conjugated Polymer. Advanced Functional Materials, 2018, 28, 1802759.	7.8	20
80	Silicon Surface Passivation for Silicon-Colloidal Quantum Dot Heterojunction Photodetectors. ACS Nano, 2021, 15, 18429-18436.	7.3	20
81	How Processing Atmosphere Influences the Evolution of GeO₂-Embedded Germanium Nanocrystals Obtained from the Thermolysis of Phenyl Trichlorogermane-Derived Polymers. Chemistry of Materials, 2010, 22, 2653-2661.	3.2	19
82	Size-controlled template synthesis of metal-free germanium nanowires. Journal of Materials Chemistry, 2011, 21, 16505.	6.7	18
83	Mixed Surface Chemistry: An Approach to Highly Luminescent Biocompatible Amphiphilic Silicon Nanocrystals. Chemistry of Materials, 2018, 30, 8925-8931.	3.2	18
84	Interfacing enzymes with silicon nanocrystals through the thiolâ€“ene reaction. Nanoscale, 2018, 10, 18706-18719.	2.8	18
85	Endogenous dynamic nuclear polarization NMR of hydride-terminated silicon nanoparticles. Solid State Nuclear Magnetic Resonance, 2019, 100, 77-84.	1.5	18
86	Mesoporous GeO_x/Ge/C as a Highly Reversible Anode Material with High Specific Capacity for Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2020, 12, 47002-47009.	4.0	18
87	Do particle size and surface functionality affect uptake and depuration of gold nanoparticles by aquatic invertebrates?. Environmental Toxicology and Chemistry, 2015, 34, 850-859.	2.2	17
88	Stabilizing the optical properties of PFO through addition of a non-volatile low molecular weight aromatic ether. Journal of Materials Chemistry, 2010, 20, 8147.	6.7	16
89	Functional Bioinorganic Hybrids from Enzymes and Luminescent Silicon-Based Nanoparticles. Langmuir, 2018, 34, 6556-6569.	1.6	16
90	Synthesis and Surface Functionalization of Hydride-Terminated Ge Nanocrystals Obtained from the Thermal Treatment of Ge(OH)₂. Langmuir, 2017, 33, 8757-8765.	1.6	15

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91	Synthesis of Oxide Encapsulated and Freestanding Hydride Surface Terminated Si1-xGexNanocrystals. Chemistry of Materials, 2007, 19, 1886-1888.	3.2	14
92	X-ray Absorption Spectroscopy of Functionalized Silicon Nanocrystals. Journal of Physical Chemistry C, 2010, 114, 22519-22525.	1.5	14
93	From Si and C encapsulated SiO2 to SiC: exploring the influence of solâ€“gel polymer substitution on thermally induced nanocrystal formation. Journal of Materials Chemistry, 2011, 21, 12422.	6.7	13
94	Tuning silicon quantum dot luminescence via surface groups. Physica Status Solidi (B): Basic Research, 2014, 251, 2216-2220.	0.7	12
95	Grafting Poly(3â€hexylthiophene) from Silicon Nanocrystal Surfaces: Synthesis and Properties of a Functional Hybrid Material with Direct Interfacial Contact. Angewandte Chemie - International Edition, 2016, 55, 7393-7397.	7.2	12
96	Mn₃O₄ nanoparticle-decorated hollow mesoporous carbon spheres as an efficient catalyst for oxygen reduction reaction in Znâ€“air batteries. Nanoscale Advances, 2020, 2, 3367-3374.	2.2	12
97	Size-independent organosilane functionalization of silicon nanocrystals using Wilkinsonâ€™s catalyst. Canadian Journal of Chemistry, 2014, 92, 951-957.	0.6	11
98	â€œTurning the dialsâ€: controlling synthesis, structure, composition, and surface chemistry to tailor silicon nanoparticle properties. Nanoscale, 2021, 13, 16379-16404.	2.8	11
99	Ensemble Effects in the Temperatureâ€Dependent Photoluminescence of Silicon Nanocrystals. Chemistry - A European Journal, 2019, 25, 3061-3067.	1.7	10
100	Thermally Induced Evolution of â€œGe(OH)₂â€: Controlling the Formation of Oxide-Embedded Ge Nanocrystals. Journal of Physical Chemistry C, 2018, 122, 17518-17525.	1.5	9
101	Tailoring Ordered Mesoporous Titania Films via Introducing Germanium Nanocrystals for Enhanced Electron Transfer Photoanodes for Photovoltaic Applications. Advanced Functional Materials, 2021, 31, 2102105.	7.8	9
102	Exploring Structural Nuances in Germanium Halide Perovskites Using Solid-State ⁷³Ge and ¹³³Cs NMR Spectroscopy. Journal of Physical Chemistry Letters, 2022, 13, 1687-1696.	2.1	9
103	Water-Assisted Transfer Patterning of Nanomaterials. Langmuir, 2018, 34, 9418-9423.	1.6	8
104	Thermally Induced Dehydrogenative Coupling of Organosilanes and H-Terminated Silicon Quantum Dots onto Germanane Surfaces. Chemistry of Materials, 2020, 32, 4536-4543.	3.2	8
105	Silicon Quantum Dotâ€“Polymer Fabryâ€“PÃ©rot Resonators with Narrowed and Tunable Emissions. ACS Applied Materials & Interfaces, 2021, 13, 27149-27158.	4.0	8
106	Light-Induced Evolution of Silicon Quantum Dot Surface Chemistryâ€”Implications for Photoluminescence, Sensing, and Reactivity. Chemistry of Materials, 2014, 26, 5467-5474.	3.2	7
107	In situ IR-spectroscopy as a tool for monitoring the radical hydrosilylation process on silicon nanocrystal surfaces. Nanoscale, 2017, 9, 8489-8495.	2.8	7
108	The influence of conjugated alkynyl(aryl) surface groups on the optical properties of silicon nanocrystals: photoluminescence through in-gap states. Nanotechnology, 2018, 29, 355705.	1.3	7

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109	Surfaceâ€Anisotropic Janus Silicon Quantum Dots via Masking on 2D Silicon Nanosheets. Advanced Materials, 2021, 33, e2100288.	11.1	7
110	Instantaneous Functionalization of Chemically Etched Silicon Nanocrystal Surfaces. Angewandte Chemie, 2017, 129, 6169-6173.	1.6	6
111	Synthesis, Properties, and Derivatization of Poly(dihydrogermane): A Germanium-Based Polyethylene Analogue. ACS Nano, 2021, 15, 9368-9378.	7.3	6
112	Controlled Growth of Silicon Oxide Nanowires from a Patterned Reagent. Journal of Physical Chemistry C, 2007, 111, 1865-1867.	1.5	5
113	Realization of sensitized erbium luminescence in Siâ€“nanocrystal composites obtained from solution processable solâ€“gel derived materials. Journal of Materials Chemistry, 2011, 21, 1713-1720.	6.7	5
114	Oxasilacycles Leading to UV-Curable Polymers: Synthesis and Application. Macromolecules, 2014, 47, 8497-8505.	2.2	5
115	Nanosilver and Nano Zero-Valent Iron Exposure Affects Nutrient Exchange Across the Sedimentâ€“Water Interface. Bulletin of Environmental Contamination and Toxicology, 2016, 96, 83-89.	1.3	5
116	Tailoring B-doped silicon nanocrystal surface chemistry via phosphorus pentachloride â€“ mediated surface alkoxylation. Nanoscale, 2021, 13, 18281-18292.	2.8	4
117	Nonvolatile Memristive Switching in Self-assembled Nanoparticle Dimers. ACS Applied Electronic Materials, 2020, 2, 1099-1105.	2.0	3
118	Synthesis and properties of covalently linked photoluminescent magnetic magnetite nanoparticle-silicon nanocrystal hybrids. MRS Advances, 2016, 1, 2321-2329.	0.5	2
119	Lewis Acid Protection: A Method Toward Synthesizing Phase Transferable Luminescent Silicon Nanocrystals. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1700620.	0.8	2
120	Dehydrocoupling â€“ an alternative approach to functionalizing germanium nanoparticle surfaces. Nanoscale, 2020, 12, 6271-6278.	2.8	2
121	VAPOR-PHASE CHEMICAL FUNCTIONALIZATION OF HIGH POROSITY, NANOSTRUCTURED THIN FILMS. International Journal of Nanoscience, 2007, 06, 103-107.	0.4	1
122	Frontispiece: Size independent blue luminescence in nitrogen passivated silicon nanocrystals (Phys.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5 1843-1843.	0.8	1
123	Shape Evolution of Faceted Silicon Nanocrystals upon Thermal Annealing in an Oxide Matrix. Materials Research Society Symposia Proceedings, 2013, 1536, 207-212.	0.1	1
124	Hybrid Materials: Highly Luminescent Covalently Linked Silicon Nanocrystal/Polystyrene Hybrid Functional Materials: Synthesis, Properties, and Processability (Adv. Funct. Mater. 10/2014). Advanced Functional Materials, 2014, 24, 1344-1344.	7.8	1
125	Surface-Initiated Group-Transfer Polymerization â€“ A Catalytic Approach to Stimuli-Responsive Silicon Nanocrystal Hybrid Materials. Materials Research Society Symposia Proceedings, 2015, 1770, 13-18.	0.1	1
126	Hollow Mesoporous Carbon Nanospheres Decorated with Metal Oxide Nanoparticles as Efficient Earthâ€Abundant Zincâ€Air Battery Catalysts. ChemElectroChem, 2021, 8, 1455-1463.	1.7	1

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127	Hollow Mesoporous Carbon Nanospheres Decorated with Metal Oxide Nanoparticles as Efficient Earthâ€Abundant Zincâ€Air Battery Catalysts. ChemElectroChem, 2021, 8, 1392-1392.	1.7	1
128	Surfaceâ€Anisotropic Janus Silicon Quantum Dots via Masking on 2D Silicon Nanosheets (Adv. Mater.) Tj ETQq0 0 0 rgBT /Overlock 10 T	11.1	1
129	Non-lithographic Patterning of Oxide-Embedded Silicon Nanoparticles. Materials Research Society Symposia Proceedings, 2011, 1359, 187.	0.1	0
130	Transparent Wood: Luminescent Transparent Wood (Advanced Optical Materials 1/2017). Advanced Optical Materials, 2017, 5, .	3.6	0
131	(Invited) Realizing Narrow Bandwidth Visible Photoluminescence from Colloidal Silicon Quantum Dots. ECS Meeting Abstracts, 2022, MA2022-01, 1079-1079.	0.0	0