Margit Zacharias

List of Publications by Year
in descending order

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278 papers	13,106 citations	30070 54 h-index	27406 106 g-index

293 all docs	293 docs citations	293 times ranked	12767 citing authors

#	Article	IF	Citations
1	Formation of Nanotubes and Hollow Nanoparticles Based on Kirkendall and Diffusion Processes: A Review. Small, 2007, 3, 1660-1671.	10.0	872
2	Size-controlled highly luminescent silicon nanocrystals: A SiO/SiO2 superlattice approach. Applied Physics Letters, 2002, 80, 661-663.	3.3	789
3	Semiconductor Nanowires: From Self-Organization to Patterned Growth. Small, 2006, 2, 700-717.	10.0	715
4	Monocrystalline spinel nanotube fabrication based on the Kirkendall effect. Nature Materials, 2006, 5, 627-631.	27.5	699
5	Classification and control of the origin of photoluminescence from Si nanocrystals. Nature Nanotechnology, 2008, 3, 174-178.	31.5	482
6	Influence of Surface Diffusion on the Formation of Hollow Nanostructures Induced by the Kirkendall Effect:Â The Basic Concept. Nano Letters, 2007, 7, 993-997.	9.1	363
7	Nanowireâ€Based Sensors. Small, 2010, 6, 1705-1722.	10.0	334
8	Silicon Nanocrystals: Size Matters. Advanced Materials, 2005, 17, 795-803.	21.0	274
9	Blue luminescence in films containing Ge and GeO2 nanocrystals: The role of defects. Applied Physics Letters, 1997, 71, 380-382.	3.3	243
10	Nanocrystalline-silicon superlattice produced by controlled recrystallization. Applied Physics Letters, 1998, 72, 43-45.	3.3	243
11	Template-Assisted Large-Scale Ordered Arrays of ZnO Pillars for Optical and Piezoelectric Applications. Small, 2006, 2, 561-568.	10.0	209
12	Crystallization of amorphous superlattices in the limit of ultrathin films with oxide interfaces. Physical Review B, 2000, 62, 8391-8396.	3.2	202
13	Thermal crystallization of amorphous Si/SiO2 superlattices. Applied Physics Letters, 1999, 74, 2614-2616.	3.3	187
14	Excitons in Si nanocrystals:â€ƒConfinement and migration effects. Physical Review B, 2004, 69, .	3.2	174
15	Enhanced surface-excitonic emission in ZnO/Al₂O₃ coreâ€“shell nanowires. Nanotechnology, 2008, 19, 305202.	2.6	168
16	Si rings, Si clusters, and Si nanocrystalsâ€”different states of ultrathin SiOx layers. Applied Physics Letters, 2002, 81, 4248-4250.	3.3	165
17	Arrays of vertically aligned and hexagonally arranged ZnO nanowires: a new template-directed approach. Nanotechnology, 2005, 16, 913-917.	2.6	147
18	Multilevel charge storage in silicon nanocrystal multilayers. Applied Physics Letters, 2005, 87, 202110.	3.3	138

#	Article	IF	Citations
19	Quantum confinement in nanoscale silicon: The correlation of size with bandgap and luminescence. Solid State Communications, 1998, 105, 317-322.	1.9	136
20	Two-dimensional dendritic ZnO nanowires from oxidation of Zn microcrystals. Applied Physics Letters, 2004, 85, 4142-4144.	3.3	130
21	Fracture strength and Youngâ€™s modulus of ZnO nanowires. Nanotechnology, 2007, 18, 205503.	2.6	130
22	Formation of size-controlled silicon nanocrystals in plasma enhanced chemical vapor deposition grown SiOxNy/SiO2 superlattices. Thin Solid Films, 2011, 520, 121-125.	1.8	115
23	Well-ordered ZnO nanowire arrays on GaN substrate fabricated via nanosphere lithography. Journal of Crystal Growth, 2006, 287, 34-38.	1.5	108
24	Multifunctional ZnO-Nanowire-Based Sensor. Advanced Functional Materials, 2011, 21, 4342-4348.	14.9	105
25	Retarded oxidation of Si nanowires. Applied Physics Letters, 2006, 89, 263106.	3.3	104
26	ZnO-based ternary compound nanotubes and nanowires. Journal of Materials Chemistry, 2009, 19, 885-900.	6.7	101
27	Vapour-transport-deposition growth of ZnO nanostructures: switch betweenc-axial wires anda-axial belts by indium doping. Nanotechnology, 2006, 17, S231-S239.	2.6	97
28	On the growth mechanism and optical properties of ZnO multi-layer nanosheets. Applied Physics A: Materials Science and Processing, 2004, 79, 1895-1900.	2.3	96
29	Laser-Interference Lithography Tailored for Highly Symmetrically Arranged ZnO Nanowire Arrays. Small, 2007, 3, 76-80.	10.0	95
30	Analysis of Silicon Nanowires Grown by Combining SiO Evaporation with the VLS Mechanism. Journal of the Electrochemical Society, 2004, 151, G472.	2.9	91
31	Low temperature silicon dioxide by thermal atomic layer deposition: Investigation of material properties. Journal of Applied Physics, 2010, 107, .	2.5	86
32	Optical gain in monodispersed silicon nanocrystals. Journal of Applied Physics, 2004, 96, 3164-3171.	2.5	83
33	Sphericity and roundness computation for particles using the extreme vertices model. Journal of Computational Science, 2019, 30, 28-40.	2.9	81
34	Growth mechanism and characterization of zinc oxide microcages. Solid State Communications, 2004, 130, 517-521.	1.9	75
35	ZnO nanowires and nanobelts: Shape selection and thermodynamic modeling. Applied Physics Letters, 2007, 90, 143116.	3.3	73
36	Influence of Temperature on Evolution of Coaxial ZnO/Al₂O₃One-Dimensional Heterostructures:â€‰ From Coreâ^'Shell Nanowires to Spinel Nanotubes and Porous Nanowires. Journal of Physical Chemistry C, 2008, 112, 4068-4074.	3.1	73

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37	Ferroelectric nanotubes fabricated using nanowires as positive templates. Applied Physics Letters, 2006, 89, 172907.	3.3	72
38	Light emission from Ge and GeO2 nanocrystals. Journal of Non-Crystalline Solids, 1998, 227-230, 1058-1062.	3.1	70
39	Patterned growth of aligned ZnO nanowire arrays on sapphire and GaN layers. Superlattices and Microstructures, 2004, 36, 95-105.	3.1	70
40	Single-crystalline MgAl2O4spinel nanotubes using a reactive and removable MgO nanowire template. Nanotechnology, 2006, 17, 5157-5162.	2.6	69
41	Field-effect passivation on silicon nanowire solar cells. Nano Research, 2015, 8, 673-681.	10.4	69
42	Fundamental temperature-dependent properties of the Si nanocrystal band gap. Physical Review B, 2012, 85, .	3.2	67
43	Color-Changeable Optical Transport through Se-Doped CdS 1D Nanostructures. Nano Letters, 2007, 7, 2970-2975.	9.1	65
44	Multitwinned Spinel Nanowires by Assembly of Nanobricks via Oriented Attachment: A Case Study of Zn₂TiO₄. ACS Nano, 2009, 3, 555-562.	14.6	64
45	Strained Interface Defects in Silicon Nanocrystals. Advanced Functional Materials, 2012, 22, 3223-3232.	14.9	63
46	Properties of hydrogenated amorphous silicon suboxide alloys with visible room-temperature photoluminescence. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1996, 73, 799-816.	0.6	62
47	Si nanocrystal based memories: Effect of the nanocrystal density. Journal of Applied Physics, 2006, 100, 014310.	2.5	62
48	Reactive VLS and the Reversible Switching between VS and VLS Growth Modes for ZnO Nanowire Growth. Journal of Physical Chemistry C, 2010, 114, 10323-10329.	3.1	62
49	Quasi-Direct Optical Transitions in Silicon Nanocrystals with Intensity Exceeding the Bulk. Nano Letters, 2016, 16, 1583-1589.	9.1	62
50	Location and Electronic Nature of Phosphorus in the Si Nanocrystal â^' SiO2 System. Scientific Reports, 2015, 5, 9702.	3.3	61
51	Phosphorus doping of Si nanocrystals embedded in silicon oxynitride determined by atom probe tomography. Journal of Applied Physics, 2014, 115, .	2.5	59
52	Si-CdSSe Core/Shell Nanowires with Continuously Tunable Light Emission. Nano Letters, 2008, 8, 3413-3417.	9.1	58
53	Phase separation of thin SiO layers in amorphous SiO/SiO2superlattices during annealing. Journal of Physics Condensed Matter, 2003, 15, S2887-S2895.	1.8	57
54	Electrical properties of nominally undoped silicon nanowires grown by molecular-beam epitaxy. Applied Physics Letters, 2007, 90, 012105.	3.3	57

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55	Charge transport in Si nanocrystal/SiO2 superlattices. Journal of Applied Physics, 2013, 113, 133703.	2.5	57
56	Comparative study of photoluminescence of undoped and erbium-doped size-controlled nanocrystalline Siâˆ•SiO2 multilayered structures. Journal of Applied Physics, 2004, 96, 2254-2260.	2.5	56
57	High-Quality Alloyed CdSxSe1-xWhiskers as Waveguides with Tunable Stimulated Emission. Journal of Physical Chemistry B, 2006, 110, 22313-22317.	2.6	56
58	Hierarchical Three-Dimensional ZnO and Their Shape-Preserving Transformation into Hollow ZnAl2O4 Nanostructures. Chemistry of Materials, 2008, 20, 3487-3494.	6.7	54
59	Self-assembly of ZnO nanowires and the spatial resolved characterization of their luminescence. Nanotechnology, 2004, 15, 1401-1404.	2.6	52
60	Stimulated emission from ZnO nanorods. Physica Status Solidi (B): Basic Research, 2006, 243, 853-857.	1.5	47
61	Electronic structure and chemical environment of silicon nanoclusters embedded in a silicon dioxide matrix. Applied Physics Letters, 2006, 88, 163103.	3.3	47
62	ZnO Nanowire Growth: A Deeper Understanding Based on Simulations and Controlled Oxygen Experiments. Crystal Growth and Design, 2010, 10, 1585-1589.	3.0	47
63	Homoepitaxial Branching: An Unusual Polymorph of Zinc Oxide Derived from Seeded Solution Growth. ACS Nano, 2012, 6, 7133-7141.	14.6	47
64	A comparative study of Ge nanocrystals in SixGeyOz alloys and SiOx/GeOy multilayers. Journal of Applied Physics, 1997, 81, 2384-2390.	2.5	45
65	Controlled Synthesis of ZnO Nanostructures: The Role of Source and Substrate Temperatures. Journal of Physical Chemistry C, 2011, 115, 757-761.	3.1	45
66	Gold at the root or at the Tip of ZnO Nanowires: A Model. Small, 2008, 4, 1615-1619.	10.0	44
67	Nitrogen at the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mtext>Si-nanocrystal</mml:mtext><mml:mo>/</mml:mo><mml:msub><mml:mrow><mml:mtext>S and its influence on luminescence and interface defects. Physical Review B, 2010, 82, .	3.2	44
68	Analysis of the Temperature Dependence of the Open-Circuit Voltage. Energy Procedia, 2012, 27, 135-142.	1.8	44
69	Absence of quantum confinement effects in the photoluminescence of Si3N4â€“embedded Si nanocrystals. Journal of Applied Physics, 2014, 115, .	2.5	44
70	Properties of sputtered a-SiO :H alloys with a visible luminescence. Journal of Non-Crystalline Solids, 1993, 164-166, 1089-1092.	3.1	43
71	Local luminescence of ZnO nanowire-covered surface: A cathodoluminescence microscopy study. Applied Physics Letters, 2005, 86, 023113.	3.3	43
72	Catalyst-Free Growth of ZnO Nanowires Based on Topographical Confinement and Preferential Chemisorption and Their Use for Room Temperature CO Detection. Journal of Physical Chemistry C, 2010, 114, 10092-10100.	3.1	43

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73	Intrinsic nonradiative recombination in ensembles of silicon nanocrystals. Physical Review B, 2013, 87, .	3.2	43
74	Enhancing the quality of the tomography of nanoporous materials for better understanding of polymer electrolyte fuel cell materials. Journal of Power Sources, 2015, 285, 413-417.	7.8	42
75	Pb(0) centers at the Si-nanocrystal/SiO2 interface as the dominant photoluminescence quenching defect. Journal of Applied Physics, 2010, 107, 084309.	2.5	41
76	Tuning the Growth Mechanism of ZnO Nanowires by Controlled Carrier and Reaction Gas Modulation in Thermal CVD. Journal of Physical Chemistry Letters, 2012, 3, 2815-2821.	4.6	40
77	Nanocrystalline silicon superlattices: fabrication and characterization. Journal of Non-Crystalline Solids, 1998, 227-230, 1132-1136.	3.1	39
78	Determining the crystalline degree of silicon nanoclusters/SiO2 multilayers by Raman scattering. Journal of Applied Physics, 2014, 115, .	2.5	39
79	Visible range whispering-gallery mode in microdisk array based on size-controlled Si nanocrystals. Applied Physics Letters, 2006, 88, 153120.	3.3	38
80	Fabrication of Nanocrystalline Silicon Superlattices by Controlled Thermal Recrystallization. Physica Status Solidi A, 1998, 165, 69-77.	1.7	37
81	Highly efficient sensitizing of erbium ion luminescence in size-controlled nanocrystalline Si/SiO2 superlattice structures. Applied Physics Letters, 2004, 84, 2512-2514.	3.3	37
82	Quasi-Fermi-level splitting in ideal silicon nanocrystal superlattices. Physical Review B, 2011, 84, .	3.2	37
83	Effects of inter-nanocrystal distance on luminescence quantum yield in ensembles of Si nanocrystals. Applied Physics Letters, 2014, 105, .	3.3	37
84	Size controlled nc-Si synthesis by SiO/SiO2 superlattices. Journal of Non-Crystalline Solids, 2002, 299-302, 1075-1078.	3.1	36
85	Modulation Doping of Silicon using Aluminium-induced Acceptor States in Silicon Dioxide. Scientific Reports, 2017, 7, 46703.	3.3	36
86	Defect-Induced Luminescence Quenching vs. Charge Carrier Generation of Phosphorus Incorporated in Silicon Nanocrystals as Function of Size. Scientific Reports, 2017, 7, 863.	3.3	35
87	Bright luminescence from erbium doped nc-Si/SiO2 superlattices. Journal of Non-Crystalline Solids, 2002, 299-302, 678-682.	3.1	34
88	Surface-diffusion induced growth of ZnO nanowires. Journal of Crystal Growth, 2009, 311, 3216-3219.	1.5	34
89	Doping efficiency of phosphorus doped silicon nanocrystals embedded in a SiO2 matrix. Applied Physics Letters, 2012, 100, 233115.	3.3	34
90	A Membrane Device for Substrateâ€Free Photovoltaic Characterization of Quantum Dot Based pâ€iâ€n Solar Cells. Advanced Materials, 2012, 24, 3124-3129.	21.0	34

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91	Electronic properties of phosphorus doped silicon nanocrystals embedded in SiO2. Applied Physics Letters, 2015, 106, .	3.3	34
92	Fabrication and Red-Color Lasing of Individual Highly Uniform Single-Crystal CdSe Nanobelts. Journal of Physical Chemistry C, 2007, 111, 14253-14256.	3.1	33
93	Size-Controlled Si Nanocrystals for Photonic and Electronic Applications. Solid State Phenomena, 2003, 94, 95-104.	0.3	32
94	Single-Crystalline CdSe Nanostructures:â€‰ from Primary Grains to Oriented Nanowires. Chemistry of Materials, 2006, 18, 6094-6096.	6.7	32
95	Transmission Electron Microscopy in situ Fabrication of ZnO/Al₂O₃ Composite Nanotubes by Electronâ€Beamâ€Irradiationâ€Induced Local Etching of ZnO/Al₂O₃ Core/Shell Nanowires. Small, 2008, 4, 2112-2117.	10.0	32
96	ZnO nanowire arrays â€“ Pattern generation, growth and applications. Physica Status Solidi (B): Basic Research, 2010, 247, 2305-2314.	1.5	32
97	Energy Offset Between Silicon Quantum Structures: Interface Impact of Embedding Dielectrics as Doping Alternative. Advanced Materials Interfaces, 2014, 1, 1400359.	3.7	32
98	Resistivity of atomic layer deposition grown ZnO: The influence of deposition temperature and post-annealing. Thin Solid Films, 2016, 603, 377-381.	1.8	32
99	Structural and optical properties of size controlled Si nanocrystals in Si3N4 matrix: The nature of photoluminescence peak shift. Journal of Applied Physics, 2013, 114, .	2.5	31
100	High-temperature degradation in plasma-enhanced chemical vapor deposition Al2O3 surface passivation layers on crystalline silicon. Journal of Applied Physics, 2014, 116, .	2.5	30
101	Electronic nose for toxic gas detection based on photostimulated coreâ€“shell nanowires. RSC Advances, 2014, 4, 35084-35088.	3.6	30
102	Determination of absorption cross-section of Si nanocrystals by two independent methods based on either absorption or luminescence. Applied Physics Letters, 2016, 108, .	3.3	30
103	Inherent paramagnetic defects in layered Si/SiO2 superstructures with Si nanocrystals. Journal of Applied Physics, 2008, 104, 103518.	2.5	29
104	Electrical analysis of individual ZnO nanowires. Journal of Applied Physics, 2008, 104, 014308.	2.5	28
105	Formation of size controlled silicon nanocrystals in nitrogen free silicon dioxide matrix prepared by plasma enhanced chemical vapor deposition. Journal of Applied Physics, 2014, 116, .	2.5	28
106	Observing the morphology of single-layered embedded silicon nanocrystals by using temperature-stable TEM membranes. Beilstein Journal of Nanotechnology, 2015, 6, 964-970.	2.8	28
107	Two-dimensional percolation threshold in confined Si nanoparticle networks. Applied Physics Letters, 2016, 108, .	3.3	28
108	Synthesis and optical properties of ZnO and carbon nanotube based coaxial heterostructures. Applied Physics Letters, 2008, 93, 103108.	3.3	27

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109	Controlled Positioning of Large Interfacial Nanocavities via Stressâ€Engineered Void Localization. Small, 2010, 6, 1603-1607.	10.0	27
110	Tracing the Migration History of Metal Catalysts in Metal-Assisted Chemically Etched Silicon. ACS Nano, 2013, 7, 1583-1590.	14.6	27
111	Charge transport and electroluminescence of silicon nanocrystals/SiO2 superlattices. Journal of Applied Physics, 2013, 114, .	2.5	27
112	Boron-Incorporating Silicon Nanocrystals Embedded in SiO2: Absence of Free Carriers vs. B-Induced Defects. Scientific Reports, 2017, 7, 8337.	3.3	27
113	Role of Carrier Gas Flow and Species Diffusion in Nanowire Growth from Thermal CVD. Journal of Physical Chemistry C, 2012, 116, 5524-5530.	3.1	26
114	Antisolvent Crystallization Approach to Construction of CuI Superstructures with Defined Geometries. ACS Nano, 2013, 7, 2820-2828.	14.6	26
115	Silicon nanocrystals embedded in silicon carbide: Investigation of charge carrier transport and recombination. Applied Physics Letters, 2013, 102, 033507.	3.3	26
116	Label-free SnO₂ nanowire FET biosensor for protein detection. Nanotechnology, 2017, 28, 245503.	2.6	26
117	Static hot carrier populations as a function of optical excitation energy detected through energy selective contacts by optically assisted IV. Progress in Photovoltaics: Research and Applications, 2014, 22, 1070-1079.	8.1	25
118	Fabrication and photoluminescence properties of erbium doped size-controlled silicon nanocrystals. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2003, 105, 214-220.	3.5	24
119	Quantum dot emitters in two-dimensional photonic crystals of macroporous silicon. Applied Physics Letters, 2005, 87, 142107.	3.3	24
120	Periodic chains of gold nanoparticles and the role of oxygen during the growth of silicon nanowires. Applied Physics Letters, 2006, 89, 173111.	3.3	24
121	Annealing temperature and barrier thickness effect on the structural and optical properties of silicon nanocrystals/SiO2 superlattices. Journal of Applied Physics, 2014, 116, 133505.	2.5	24
122	Bringing Order to the World of Nanowire Devices by Phase Shift Lithography. Nano Letters, 2011, 11, 3513-3518.	9.1	23
123	Superior Functionality by Design: Selective Ozone Sensing Realized by Rationally Constructed Highâ€Index ZnO Surfaces. Small, 2012, 8, 3307-3314.	10.0	23
124	Electron Beam Effects on Oxide Thin Filmsâ€”Structure and Electrical Property Correlations. Microscopy and Microanalysis, 2019, 25, 592-600.	0.4	23
125	Physical properties of a-SiOx : H alloys prepared by dc magnetron sputtering with water vapour as oxygen source. Journal of Non-Crystalline Solids, 1994, 169, 29-36.	3.1	22
126	Extraordinary crystallization of amorphous Si/SiO2 superlattices. Journal of Non-Crystalline Solids, 2000, 266-269, 640-644.	3.1	22

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127	Paramagnetic point defects at SiO2/nanocrystalline Si interfaces. Applied Physics Letters, 2008, 93, .	3.3	22
128	Rapid thermal annealing of size-controlled Si nanocrystals: Dependence of interface defect density on thermal budget. Journal of Applied Physics, 2011, 109, .	2.5	22
129	On the morphological instability of silicon/silicon dioxide nanowires. Applied Physics A: Materials Science and Processing, 2005, 80, 1405-1408.	2.3	21
130	Regulated Oxidation of Nickel in Multisegmented Nickelâ€“Platinum Nanowires: An Entry to Wavy Nanopeapods. Angewandte Chemie - International Edition, 2011, 50, 10855-10858.	13.8	21
131	Size dependence of P _b -type photoluminescence quenching defects at the Si nanocrystal interface. Europhysics Letters, 2011, 96, 27003.	2.0	21
132	Atomic-layer-deposition alumina induced carbon on porous Ni_xCo_{1 â^' x}O nanonets for enhanced pseudocapacitive and Li-ion storage performance. Nanotechnology, 2015, 26, 014001.	2.6	21
133	Direct imaging of the spectral emission characteristic of an InGaN/GaN-ultraviolet light-emitting diode by highly spectrally and spatially resolved electroluminescence and photoluminescence microscopy. Applied Physics Letters, 1999, 75, 3440-3442.	3.3	20
134	Atomic Layer Deposition on Phase-Shift Lithography Generated Photoresist Patterns for 1D Nanochannel Fabrication. ACS Applied Materials & Interfaces, 2010, 2, 3473-3478.	8.0	20
135	Improved optical properties of ZnO thin films by concurrently introduced interfacial voids during thermal annealing. Applied Physics Letters, 2011, 99, .	3.3	20
136	An advanced fabrication method of highly ordered ZnO nanowire arrays on silicon substrates by atomic layer deposition. Nanotechnology, 2012, 23, 235607.	2.6	20
137	A Simple Approach for Molecular Controlled Release based on Atomic Layer Deposition Hybridized Organic-Inorganic Layers. Scientific Reports, 2016, 6, 19574.	3.3	20
138	How the Oxidation Stability of Metal Catalysts Defines the Metal-Assisted Chemical Etching of Silicon. Journal of Physical Chemistry C, 2017, 121, 9296-9299.	3.1	20
139	Flexible thin film pH sensor based on lowâ€temperature atomic layer deposition. Physica Status Solidi - Rapid Research Letters, 2017, 11, 1700123.	2.4	20
140	Nearly perfect near-infrared luminescence efficiency of Si nanocrystals: A comprehensive quantum yield study employing the Purcell effect. Scientific Reports, 2019, 9, 11214.	3.3	20
141	Formation of Ge nanocrystals with sharp size distribution: structural and optical characterization. Superlattices and Microstructures, 1995, 18, 139-146.	3.1	19
142	Formation of Ge nanocrystals in amorphous GeO x , and SiGeO x alloy films. Thin Solid Films, 1996, 278, 32-36.	1.8	19
143	Silicon nanocrystals in SiNx/SiO2 hetero-superlattices: The loss of size control after thermal annealing. Journal of Applied Physics, 2014, 115, 244304.	2.5	19
144	A low thermal impact annealing process for SiO2-embedded Si nanocrystals with optimized interface quality. Journal of Applied Physics, 2014, 115, 134311.	2.5	19

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145	Spatial separation of photogenerated electronâ€“hole pairs in solution-grown ZnO tandem nâ€“p coreâ€“shell nanowire arrays toward highly sensitive photoelectrochemical detection of hydrogen peroxide. Journal of Materials Chemistry A, 2017, 5, 14397-14405.	10.3	19
146	Electrical behavior of size-controlled Si nanocrystals arranged as single layers. Applied Physics A: Materials Science and Processing, 2005, 80, 1631-1634.	2.3	18
147	Superparamagnetic behavior in cobalt iron oxide nanotube arrays by atomic layer deposition. Journal of Applied Physics, 2011, 110, .	2.5	18
148	A low-temperature evaporation route for ZnO nanoneedles and nanosaws. Applied Physics A: Materials Science and Processing, 2005, 80, 457-460.	2.3	17
149	Growth and optical properties of phosphorus-doped ZnO nanowires. Solid State Communications, 2007, 143, 570-573.	1.9	16
150	Diffusionâ€Induced Void Evolution in Coreâ€“Shell Nanowires: Elaborated View on the Nanoscale Kirkendall Effect. Israel Journal of Chemistry, 2010, 50, 439-448.	2.3	16
151	Structural and optical characterization of size controlled silicon nanocrystals in SiO2/SiOxNy multilayers. Energy Procedia, 2011, 10, 43-48.	1.8	16
152	Electron Tunneling from Colloidal CdSe Quantum Dots to ZnO Nanowires Studied by Time-Resolved Luminescence and Photoconductivity Experiments. Journal of Physical Chemistry C, 2015, 119, 15627-15635.	3.1	16
153	Photoluminescence performance limits of Si nanocrystals in silicon oxynitride matrices. Journal of Applied Physics, 2017, 122, .	2.5	16
154	Optimization of ALDâ€ZnO Thin Films Toward Higher Conductivity. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1700880.	1.8	16
155	Integration of Erbium-Doped Lithium Niobate Microtubes into Ordered Macroporous Silicon. Advanced Materials, 2006, 18, 363-366.	21.0	15
156	Surface Reaction of ZnO Nanowires with Electron-Beam Generated Alumina Vapor. Journal of Physical Chemistry C, 2008, 112, 6770-6774.	3.1	15
157	Enhancement of photoluminescence signal from ultrathin layers with silicon nanocrystals. Applied Physics Letters, 2012, 100, 061908.	3.3	15
158	Quasi-metallic behavior of ZnO grown by atomic layer deposition: The role of hydrogen. Journal of Applied Physics, 2017, 122, .	2.5	15
159	Compositional investigation of sputtered amorphous SiOX:H. Solid State Communications, 1993, 87, 805-808.	1.9	14
160	Periodically arranged point defects in two-dimensional photonic crystals. Physical Review B, 2004, 70, .	3.2	14
161	Photoluminescent and gas-sensing properties of ZnO nanowires prepared by an ionic liquid assisted vapor transfer approach. Journal of Applied Physics, 2012, 112, 034311.	2.5	14
162	Silicon nanocrystals from highâ€temperature annealing: Characterization on device level. Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 669-675.	1.8	14

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163	Optical properties of silicon nanocrystals covered by periodic array of gold nanowires. Physical Review B, 2016, 93, .	3.2	14
164	Er doping of nanocrystalline-Si/SiO2 superlattices. Thin Solid Films, 2001, 397, 211-215.	1.8	13
165	Toward Discrete Multilayered Composite Structures: Do Hollow Networks Form in a Polycrystalline Infinite Nanoplane by the Kirkendall Effect?. Chemistry of Materials, 2011, 23, 4445-4451.	6.7	13
166	Photoexcited charge carrier dynamics in silicon nanocrystal/SiO2 superlattices. Physica E: Low-Dimensional Systems and Nanostructures, 2014, 56, 177-182.	2.7	13
167	Structural parameters effect on the electrical and electroluminescence properties of silicon nanocrystals/SiO2 superlattices. Nanotechnology, 2015, 26, 185704.	2.6	13
168	Interplay of bimolecular and Auger recombination in photoexcited carrier dynamics in silicon nanocrystal/silicon dioxide superlattices. Scientific Reports, 2018, 8, 1703.	3.3	13
169	The formation of germanium nanocrystals by thermal annealing of aâ€¦SiO_x: H/aâ€¦GeO_x: H multilayers. Physica Status Solidi (B): Basic Research, 1996, 193, 375-389.	1.5	12
170	Confinement effects in crystallization and Er doping of Si nanostructures. Physica E: Low-Dimensional Systems and Nanostructures, 2001, 11, 245-251.	2.7	12
171	Silicon nanocrystals prepared by plasma enhanced chemical vapor deposition: Importance of parasitic oxidation for third generation photovoltaic applications. Applied Physics Letters, 2012, 101, 193103.	3.3	12
172	Gibbs free energy and equilibrium states in the Si/Si oxide systems. Journal of Physics Condensed Matter, 2012, 24, 385403.	1.8	12
173	Detection of real-time dynamics of drugâ€“target interactions by ultralong nanowalls. Lab on A Chip, 2013, 13, 4173.	6.0	12
174	Largeâ€Scale Nano Piezo Force Position Arrays as Ultrahighâ€Resolution Microâ€and Nanoparticle Tracker. Advanced Functional Materials, 2013, 23, 191-197.	14.9	12
175	Formation of size-controlled and luminescent Si nanocrystals from SiOxNy/Si3N4 hetero-superlattices. Journal of Applied Physics, 2015, 117, 175303.	2.5	12
176	Ultra-long zinc oxide nanowires and boron doping based on ionic liquid assisted thermal chemical vapor deposition growth. Nanoscale, 2015, 7, 92-97.	5.6	12
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