

Hartmut Wiggers

List of Publications by Year in descending order

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188
papers

5,315
citations

76294

40
h-index

123376

61
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193
all docs

193
docs citations

193
times ranked

5536
citing authors

#	ARTICLE	IF	CITATIONS
1	Enhanced heterogeneous activation of peroxydisulfate by Ruddlesden-Popper-type La_2CoO_4 nanoparticles for bisphenol A degradation. <i>Chemical Engineering Journal</i> , 2022, 429, 131447.	6.6	24
2	Synthesis of freestanding few-layer graphene in microwave plasma: The role of oxygen. <i>Carbon</i> , 2022, 186, 560-573.	5.4	27
3	Conductivity enhancement of Al- and Ta-substituted $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$ solid electrolytes by nanoparticles. <i>Journal of the European Ceramic Society</i> , 2022, 42, 1033-1041.	2.8	5
4	Structure-activity correlation in aerobic cyclohexene oxidation and peroxide decomposition over $\text{Co}_x\text{Fe}_{3-x}\text{O}_4$ spinel oxides. <i>Catalysis Science and Technology</i> , 2022, 12, 3594-3605.	2.1	4
5	LES of nanoparticle synthesis in the spraysyn burner: A comparison against experiments. <i>Powder Technology</i> , 2022, 404, 117466.	2.1	11
6	Early particle formation and evolution in iron-doped flames. <i>Combustion and Flame</i> , 2022, 244, 112251.	2.8	8
7	Large-scale synthesis of iron oxide/graphene hybrid materials as highly efficient photo-Fenton catalyst for water remediation. <i>Environmental Technology and Innovation</i> , 2021, 21, 101239.	3.0	29
8	Investigation of the combustion of iron pentacarbonyl and the formation of key intermediates in iron oxide synthesis flames. <i>Chemical Engineering Science</i> , 2021, 230, 116169.	1.9	9
9	Spray-flame synthesis of LaMO_3 ($\text{M} = \text{Mn, Fe, Co}$) perovskite nanomaterials: Effect of spray droplet size and esterification on particle size distribution. <i>Proceedings of the Combustion Institute</i> , 2021, 38, 1279-1287.	2.4	19
10	Towards a framework for evaluating and reporting Hansen solubility parameters: applications to particle dispersions. <i>Nanoscale Advances</i> , 2021, 3, 4400-4410.	2.2	10
11	Spray-Flame Synthesis of LaMnO_3 Nanoparticles for Selective CO Oxidation (SELOX). <i>Energy & Fuels</i> , 2021, 35, 4367-4376.	2.5	16
12	Gas-Phase Synthesis of Silicon-Rich Silicon Nitride Nanoparticles for High Performance Lithium-Ion Batteries. <i>Particle and Particle Systems Characterization</i> , 2021, 38, 2100007.	1.2	8
13	Spray Flame Synthesis (SFS) of Lithium Lanthanum Zirconate (LLZO) Solid Electrolyte. <i>Materials</i> , 2021, 14, 3472.	1.3	7
14	Atmospheric-pressure particle mass spectrometer for investigating particle growth in spray flames. <i>Journal of Aerosol Science</i> , 2021, 158, 105827.	1.8	16
15	Direct gas phase synthesis of amorphous Si/C nanoparticles as anode material for lithium ion battery. <i>Journal of Alloys and Compounds</i> , 2021, 870, 159315.	2.8	17
16	Liquid-Phase Cyclohexene Oxidation with O_2 over Spray-Flame-Synthesized $\text{La}_x\text{Sr}_{1-x}\text{CoO}_3$ Perovskite Nanoparticles. <i>Chemistry - A European Journal</i> , 2021, 27, 16912-16923.	1.7	10
17	Spray-flame synthesis of $\text{La}(\text{Fe, Co})\text{O}_3$ nano-perovskites from metal nitrates. <i>AIChE Journal</i> , 2020, 66, e16748.	1.8	41
18	Gas-phase synthesis of iron oxide nanoparticles for improved magnetic hyperthermia performance. <i>Journal of Alloys and Compounds</i> , 2020, 824, 153814.	2.8	31

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19	Self-assembled nano-silicon/graphite hybrid embedded in a conductive polyaniline matrix for the performance enhancement of industrial applicable lithium-ion battery anodes. <i>Solid State Ionics</i> , 2020, 344, 115117.	1.3	16
20	Multiscale Simulation of the Formation of Platinum-Particles on Alumina Nanoparticles in a Spray Flame Experiment. <i>Fluids</i> , 2020, 5, 201.	0.8	11
21	Thermophoretic particle sampling on a TEM grid: A new design for sample preparation with high spatial accuracy. <i>Chemie-Ingenieur-Technik</i> , 2020, 92, 1330-1330.	0.4	0
22	Silicon Nanoparticle Films Infilled with Al ₂ O ₃ Using Atomic Layer Deposition for Photosensor, Light Emission, and Photovoltaic Applications. <i>ACS Applied Nano Materials</i> , 2020, 3, 5033-5044.	2.4	6
23	Selective cyclohexene oxidation with O ₂ , H ₂ O and <i>tert</i> -butyl hydroperoxide over spray-flame synthesized LaCo _{1-x} Fe _x O ₃ nanoparticles. <i>Catalysis Science and Technology</i> , 2020, 10, 5196-5206.	2.1	28
24	Spray-flame synthesis of BaTi _{1-x} Zr _x O ₃ nanoparticles for energy storage applications. <i>Ceramics International</i> , 2020, 46, 13915-13924.	2.3	7
25	Plasma-assisted gas-phase synthesis and in-line coating of silicon nanoparticles. <i>Plasma Processes and Polymers</i> , 2020, 17, 1900245.	1.6	9
26	Assembly, Stability, and Electrical Properties of Sparse Crystalline Silicon Nanoparticle Networks Applied to Solution-Processed Field-Effect Transistors. <i>ACS Applied Electronic Materials</i> , 2020, 2, 692-700.	2.0	3
27	Effect of Spray Parameters in a Spray Flame Reactor During Fe _x O _y Nanoparticles Synthesis. <i>Journal of Thermal Spray Technology</i> , 2020, 29, 368-383.	1.6	6
28	Spray-Flame-Prepared LaCo _{1-x} Fe _x O ₃ Perovskite Nanoparticles as Active OER Catalysts: Influence of Fe Content and Low-Temperature Heating. <i>ChemElectroChem</i> , 2020, 7, 2564-2574.	1.7	21
29	Nanoparticle Formation and Behavior in Turbulent Spray Flames Investigated by DNS. <i>Flow, Turbulence and Combustion</i> , 2020, 105, 497-516.	1.4	19
30	Gas-phase synthesis of functional nanomaterials: Challenges to kinetics, diagnostics, and process development. <i>Proceedings of the Combustion Institute</i> , 2019, 37, 83-108.	2.4	92
31	Comparative study of flame-based SiO ₂ nanoparticle synthesis from TMS and HMDSO: SiO-LIF concentration measurement and detailed simulation. <i>Proceedings of the Combustion Institute</i> , 2019, 37, 1221-1229.	2.4	22
32	Detailed simulation of iron oxide nanoparticle forming flames: Buoyancy and probe effects. <i>Proceedings of the Combustion Institute</i> , 2019, 37, 1241-1248.	2.4	20
33	Towards Mechanistic Understanding of Liquid-Phase Cinnamyl Alcohol Oxidation with <i>tert</i> -Butyl Hydroperoxide over Noble-Metal-Free LaCo _{1-x} Fe _x O ₃ Perovskites. <i>ChemPlusChem</i> , 2019, 84, 1155-1163.	1.3	29
34	SpraySyn™ A standardized burner configuration for nanoparticle synthesis in spray flames. <i>Review of Scientific Instruments</i> , 2019, 90, 085108.	0.6	89
35	Microwave plasma-assisted silicon nanoparticles: cytotoxic, molecular, and numerical responses against cancer cells. <i>RSC Advances</i> , 2019, 9, 13336-13347.	1.7	7
36	Spray-Flame-Synthesized LaCo _{1-x} Fe _x O ₃ Perovskite Nanoparticles as Electrocatalysts for Water and Ethanol Oxidation. <i>ChemElectroChem</i> , 2019, 6, 4266-4274.	1.7	28

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37	Synthesis of silicon nanoparticles in a pilot-plant-scale microwave plasma reactor: Impact of flow rates and precursor concentration on the nanoparticle size and aggregation. Powder Technology, 2019, 342, 880-886.	2.1	25
38	Durability study of platinum nanoparticles supported on gas-phase synthesized graphene in oxygen reduction reaction conditions. Applied Surface Science, 2019, 467-468, 1181-1186.	3.1	29
39	All gas-phase synthesis of graphene: Characterization and its utilization for silicon-based lithium-ion batteries. Electrochimica Acta, 2018, 272, 52-59.	2.6	40
40	Intra- and inter-nanocrystal charge transport in nanocrystal films. Nanoscale, 2018, 10, 8042-8057.	2.8	14
41	Electrostatic Self-Assembly Enabling Integrated Bulk and Interfacial Sodium Storage in 3D Titania-Graphene Hybrid. Nano Letters, 2018, 18, 336-346.	4.5	40
42	Efficient p-n junction-based thermoelectric generator that can operate at extreme temperature conditions. Journal Physics D: Applied Physics, 2018, 51, 014005.	1.3	20
43	Ejector-based sampling from low-pressure aerosol reactors. Journal of Aerosol Science, 2018, 123, 105-115.	1.8	9
44	Parasitic Reactions in Nanosized Silicon Anodes for Lithium-Ion Batteries. Nano Letters, 2017, 17, 1512-1519.	4.5	122
45	Micrometer-sized nano-structured silicon/carbon composites for lithium-ion battery anodes synthesized based on a three-step Hansen solubility parameter (HSP) concept. Journal of Industrial and Engineering Chemistry, 2017, 52, 305-313.	2.9	10
46	Light-induced nonthermal population of optical phonons in nanocrystals. Physical Review B, 2017, 95, .	1.1	20
47	Microstructure and thermoelectric properties of Si-WSi ₂ nanocomposites. Acta Materialia, 2017, 125, 321-326.	3.8	22
48	Optoelectronic properties and depth profile of charge transport in nanocrystal films. Physical Review B, 2017, 96, .	1.1	6
49	Experimental and numerical study of a HMDSO-seeded premixed laminar low-pressure flame for SiO ₂ nanoparticle synthesis. Proceedings of the Combustion Institute, 2017, 36, 1045-1053.	2.4	27
50	Mass spectrometric analysis of clusters and nanoparticles during the gas-phase synthesis of tungsten oxide. Proceedings of the Combustion Institute, 2017, 36, 1037-1044.	2.4	17
51	Novel Si-CNT/polyaniline nanocomposites as Lithium-ion battery anodes for improved cycling performance. Materials Today: Proceedings, 2017, 4, S263-S268.	0.9	8
52	Inline coating of silicon nanoparticles in a plasma reactor: Reactor design, simulation and experiment. Materials Today: Proceedings, 2017, 4, S118-S127.	0.9	13
53	Lattice dynamics and thermoelectric properties of nanocrystalline silicon-germanium alloys. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 515-523.	0.8	8
54	Silicon-based nanocomposites for thermoelectric application. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 497-514.	0.8	21

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55	A novel magnetically-separable porous iron-oxide nanocomposite as an adsorbent for methylene blue (MB) dye. <i>Journal of Environmental Chemical Engineering</i> , 2016, 4, 3779-3787.	3.3	27
56	Three-Dimensional Percolation and Performance of Nanocrystal Field-Effect Transistors. <i>Physical Review Applied</i> , 2016, 5, .	1.5	15
57	Novel back-reflector architecture with nanoparticle based buried light-scattering microstructures for improved solar cell performance. <i>Nanoscale</i> , 2016, 8, 12035-12046.	2.8	10
58	High-yield and scalable synthesis of a Silicon/Aminosilane-functionalized Carbon NanoTubes/Carbon (Si/A-CNT/C) composite as a high-capacity anode for lithium-ion batteries. <i>Journal of Applied Electrochemistry</i> , 2016, 46, 229-239.	1.5	15
59	Laser-Assisted Wet-Chemical Doping of Sintered Si and Ge Nanoparticle Films. <i>Advanced Electronic Materials</i> , 2015, 1, 1400029.	2.6	5
60	Mesoporous Sulfonated Carbon Materials Prepared by Spray Pyrolysis. <i>ChemCatChem</i> , 2015, 7, 2891-2896.	1.8	7
61	Microwave plasma synthesis of Si/Ge and Si/WSi ₂ nanoparticles for thermoelectric applications. <i>Journal Physics D: Applied Physics</i> , 2015, 48, 314010.	1.3	11
62	Si-CNT/rGO Nanoheterostructures as High-Performance Lithium-Ion Battery Anodes. <i>ChemElectroChem</i> , 2015, 2, 1983-1990.	1.7	33
63	Initial reaction steps during flame synthesis of iron-oxide nanoparticles. <i>CrystEngComm</i> , 2015, 17, 6930-6939.	1.3	41
64	Impact of Ambient Pressure on Titania Nanoparticle Formation During Spray-Flame Synthesis. <i>Journal of Nanoscience and Nanotechnology</i> , 2015, 15, 9449-9456.	0.9	24
65	Influence of carbon content, particle size, and partial manganese substitution on the electrochemical performance of LiFe _x Mn _{1-x} PO ₄ /carbon composites. <i>Ionics</i> , 2015, 21, 1857-1866.	1.2	9
66	Thermoelectrics from silicon nanoparticles: the influence of native oxide. <i>European Physical Journal B</i> , 2015, 88, 1.	0.6	11
67	Resonant photothermal laser processing of hybrid gold/titania nanoparticle films. <i>Applied Surface Science</i> , 2015, 336, 48-52.	3.1	5
68	Direct self-assembly of Fe ₂ O ₃ /reduced graphene oxide nanocomposite for high-performance lithium-ion batteries. <i>Journal of Materials Chemistry A</i> , 2015, 3, 11566-11574.	5.2	58
69	Charge storage in $\hat{1}^2$ -FeSi ₂ nanoparticles. <i>Journal of Applied Physics</i> , 2015, 117, 054303.	1.1	5
70	Towards solar cell emitters based on colloidal Si nanocrystals. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2015, 212, 156-161.	0.8	3
71	Laser-based in situ measurement and simulation of gas-phase temperature and iron atom concentration in a pilot-plant nanoparticle synthesis reactor. <i>Proceedings of the Combustion Institute</i> , 2015, 35, 2299-2306.	2.4	29
72	Spatially resolved determination of thermal conductivity by Raman spectroscopy. <i>Semiconductor Science and Technology</i> , 2014, 29, 124005.	1.0	37

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73	Iron Oxide/Polymer-Based Nanocomposite Material for Hydrogen Sulfide Adsorption Applications. <i>Chemical Engineering and Technology</i> , 2014, 37, 1938-1944.	0.9	13
74	Structural and electronic properties of \hat{I}^2 -FeSi ₂ . The role of stacking fault domains. <i>Physical Review B</i> , 2014, 89, .		
75	Resonant Electronic Coupling Enabled by Small Molecules in Nanocrystal Solids. <i>Nano Letters</i> , 2014, 14, 3817-3826.	4.5	22
76	In situ nanoparticle size measurements of gas-borne silicon nanoparticles by time-resolved laser-induced incandescence. <i>Applied Physics B: Lasers and Optics</i> , 2014, 116, 623-636.	1.1	62
77	Silicon/Polyaniline Nanocomposites as Anode Material for Lithium Ion Batteries. <i>Journal of the Electrochemical Society</i> , 2014, 161, A40-A45.	1.3	68
78	Thermal conductivity of mesoporous films measured by Raman spectroscopy. <i>Applied Physics Letters</i> , 2014, 104, 161907.	1.5	21
79	Nanocrystalline silicon: lattice dynamics and enhanced thermoelectric properties. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 25701-25709.	1.3	49
80	Surface functionalization of microwave plasma-synthesized silica nanoparticles for enhancing the stability of dispersions. <i>Journal of Nanoparticle Research</i> , 2014, 16, 1.	0.8	30
81	High Temperature Thermoelectric Device Concept Using Large Area PN Junctions. <i>Journal of Electronic Materials</i> , 2014, 43, 2376-2383.	1.0	36
82	Ignition delay times of shock-heated tetraethoxysilane, hexamethyldisiloxane, and titanium tetrakispropoxide. <i>Chemical Physics Letters</i> , 2014, 601, 54-58.	1.2	5
83	Direct gas-phase synthesis of single-phase \hat{I}^2 -FeSi ₂ nanoparticles. <i>Journal of Nanoparticle Research</i> , 2013, 15, 1.	0.8	9
84	Excimer laser doping using highly doped silicon nanoparticles. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2013, 210, 2456-2462.	0.8	14
85	Impact of composition and morphology on the optical properties of Si-NC/P3HT thin films processed from solution. <i>Applied Physics A: Materials Science and Processing</i> , 2013, 113, 439-446.	1.1	2
86	Separation of semiconducting and ferromagnetic FeSi ₂ -nanoparticles by magnetic filtering. <i>Journal of Applied Physics</i> , 2013, 114, .	1.1	7
87	Solid state NMR structural studies of the lithiation of nano-silicon. <i>Solid State Ionics</i> , 2013, 249-250, 41-48.	1.3	15
88	Laser-doping of crystalline silicon substrates using doped silicon nanoparticles. <i>Thin Solid Films</i> , 2013, 548, 437-442.	0.8	9
89	Effects of impurities on the lattice dynamics of nanocrystalline silicon for thermoelectric application. <i>Journal of Materials Science</i> , 2013, 48, 2836-2845.	1.7	23
90	Morphology, thermoelectric properties and wet-chemical doping of laser-sintered germanium nanoparticles. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2013, 210, 153-160.	0.8	14

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91	Fabrication of periodic surface topographies via sequential photothermal laser microsintering of silicon nanoparticle films. <i>Applied Surface Science</i> , 2013, 278, 278-283.	3.1	0
92	Synthesis of Small Carbon Nanoparticles in a Microwave Plasma Flow Reactor. <i>Zeitschrift Fur Physikalische Chemie</i> , 2013, 227, 357-370.	1.4	5
93	Thermoelectric Properties of Nanocrystalline Silicon from a Scaled-Up Synthesis Plant. <i>Advanced Engineering Materials</i> , 2013, 15, 379-385.	1.6	57
94	Sintering of thin titanium dioxide nanoparticle films via photothermal processing with ultraviolet continuous-wave lasers. <i>Applied Surface Science</i> , 2013, 278, 336-340.	3.1	18
95	Buoyancy induced limits for nanoparticle synthesis experiments in horizontal premixed low-pressure flat-flame reactors. <i>Combustion Theory and Modelling</i> , 2013, 17, 504-521.	1.0	15
96	A new thermoelectric concept using large area PN junctions. <i>Materials Research Society Symposia Proceedings</i> , 2013, 1543, 3-8.	0.1	11
97	Low temperature diffusion of Li atoms into Si nanoparticles and surfaces. <i>Journal of Applied Physics</i> , 2013, 114, 034310.	1.1	3
98	Depassivation kinetics in crystalline silicon nanoparticles. <i>Physical Review B</i> , 2013, 88, .	1.1	7
99	Exchange-Coupled Donor Dimers in Nanocrystal Quantum Dots. <i>Physical Review Letters</i> , 2012, 108, 126806.	2.9	24
100	Laser-sintered thin films of doped SiGe nanoparticles. <i>Applied Physics Letters</i> , 2012, 100, 231907.	1.5	20
101	The effect of Peltier heat during current activated densification. <i>Applied Physics Letters</i> , 2012, 101, .	1.5	29
102	Comparison of Micro- and Nanoscale Fe ³⁺ -Containing (Hematite) Particles for Their Toxicological Properties in Human Lung Cells In Vitro. <i>Toxicological Sciences</i> , 2012, 126, 173-182.	1.4	47
103	A sintered nanoparticle p-n junction observed by a Seebeck microscan. <i>Journal of Applied Physics</i> , 2012, 111, .	1.1	13
104	Monodisperse titania microspheres via controlled nanoparticle aggregation. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 7490.	1.3	7
105	Synthesis of Tailored Nanoparticles in Flames: Chemical Kinetics, In Situ Diagnostics, Numerical Simulation, and Process Development. <i>Nanoscience and Technology</i> , 2012, , 3-48.	1.5	1
106	Thermally Induced Reactions between Lithiated Nano-Silicon Electrode and Electrolyte for Lithium-Ion Batteries. <i>Journal of the Electrochemical Society</i> , 2012, 159, A657-A663.	1.3	62
107	High-capacity cathodes for lithium-ion batteries from nanostructured LiFePO ₄ synthesized by highly-flexible and scalable flame spray pyrolysis. <i>Journal of Power Sources</i> , 2012, 216, 76-83.	4.0	66
108	Electrical Transport in Semiconductor Nanoparticle Arrays: Conductivity, Sensing and Modeling. <i>Nanoscience and Technology</i> , 2012, , 231-271.	1.5	4

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109	Low-Cost Post-Growth Treatments of Crystalline Silicon Nanoparticles Improving Surface and Electronic Properties. <i>Advanced Functional Materials</i> , 2012, 22, 1190-1198.	7.8	44
110	The realization of a pn-diode using only silicon nanoparticles. <i>Scripta Materialia</i> , 2012, 67, 265-268.	2.6	14
111	Stabilization of mid-sized silicon nanoparticles by functionalization with acrylic acid. <i>Nanoscale Research Letters</i> , 2012, 7, 76.	3.1	74
112	Photothermal laser processing of thin silicon nanoparticle films: on the impact of oxide formation on film morphology. <i>Applied Physics A: Materials Science and Processing</i> , 2012, 106, 853-861.	1.1	12
113	Functionalization of SiO ₂ Nanoparticles and Their Superhydrophobic Surface Coating. <i>Special Publication - Royal Society of Chemistry</i> , 2012, , 113-120.	0.0	0
114	From nanoparticles to nanocrystalline bulk: percolation effects in field assisted sintering of silicon nanoparticles. <i>Nanotechnology</i> , 2011, 22, 135601.	1.3	35
115	Solution-Processed Networks of Silicon Nanocrystals: The Role of Internanocrystal Medium on Semiconducting Behavior. <i>Journal of Physical Chemistry C</i> , 2011, 115, 20120-20127.	1.5	41
116	Plasma synthesis of nanostructures for improved thermoelectric properties. <i>Journal Physics D: Applied Physics</i> , 2011, 44, 174034.	1.3	101
117	Artificially nanostructured n-type SiGe bulk thermoelectrics through plasma enhanced growth of alloy nanoparticles from the gas phase. <i>Journal of Materials Research</i> , 2011, 26, 1872-1878.	1.2	21
118	Freestanding silicon quantum dots: origin of red and blue luminescence. <i>Nanotechnology</i> , 2011, 22, 055707.	1.3	54
119	Gas-Phase Synthesis of Nanoscale Silicon as an Economical Route towards Sustainable Energy Technology. <i>KONA Powder and Particle Journal</i> , 2011, 29, 191-207.	0.9	56
120	Synthesis and Ink-Jet Printing of Highly Luminescing Silicon Nanoparticles for Printable Electronics. <i>Journal of Nanoscience and Nanotechnology</i> , 2011, 11, 5028-5033.	0.9	11
121	Stable Aqueous Dispersions of ZnO Nanoparticles for Ink-Jet Printed Gas Sensors. <i>Journal of Nanoscience and Nanotechnology</i> , 2011, 11, 10839-10843.	0.9	9
122	Synthesis of tailored WO ₃ and WO _x (2.9<x<3) nanoparticles by adjusting the combustion conditions in a H ₂ /O ₂ /Ar premixed flame reactor. <i>Proceedings of the Combustion Institute</i> , 2011, 33, 1883-1890.	2.4	21
123	Role of oxygen on microstructure and thermoelectric properties of silicon nanocomposites. <i>Journal of Applied Physics</i> , 2011, 110, 113515.	1.1	65
124	Efficiency Enhancement in Hybrid P3HT/Silicon Nanocrystal Solar Cells. <i>Green</i> , 2011, 1, .	0.4	21
125	Photovoltaic Devices from Silicon Nanoparticles. <i>Materials Research Society Symposia Proceedings</i> , 2010, 1260, 1.	0.1	0
126	Influence of reaction parameters on the photoluminescence properties of free standing functionalized silicon nanocrystals. <i>Materials Research Society Symposia Proceedings</i> , 2010, 1260, 1.	0.1	0

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127	Defect reduction in silicon nanoparticles by low-temperature vacuum annealing. Applied Physics Letters, 2010, 96, .	1.5	34
128	Nanocrystalline silicon compacted by spark-plasma sintering: Microstructure and thermoelectric properties. Materials Research Society Symposia Proceedings, 2010, 1267, 1.	0.1	6
129	Electroluminescence from silicon nanoparticles fabricated from the gas phase. Nanotechnology, 2010, 21, 455201.	1.3	5
130	Freestanding spherical silicon nanocrystals: A model system for studying confined excitons. Applied Physics Letters, 2010, 97, .	1.5	21
131	Silicon nanocrystals dispersed in water: Photosensitizers for molecular oxygen. Applied Physics Letters, 2010, 96, 211901.	1.5	16
132	Optical and electrical properties of silicon nanoparticles. , 2010, , .		5
133	Novel Material Properties Based on Flame-synthesized Nanomaterials. KONA Powder and Particle Journal, 2009, 27, 186-194.	0.9	13
134	Dielectric screening versus quantum confinement of phosphorus donors in silicon nanocrystals investigated by magnetic resonance. Physical Review B, 2009, 79, .	1.1	33
135	Enhanced long-term stability of functionalized silicon nanoparticles using esters. Materials Research Society Symposia Proceedings, 2009, 1207, 1.	0.1	2
136	Luminescent Colloidal Dispersion of Silicon Quantum Dots from Microwave Plasma Synthesis: Exploring the Photoluminescence Behavior Across the Visible Spectrum. Advanced Functional Materials, 2009, 19, 696-703.	7.8	223
137	Imaging measurements of atomic iron concentration with laser-induced fluorescence in a nanoparticle synthesis flame reactor. Applied Physics B: Lasers and Optics, 2009, 94, 119-125.	1.1	35
138	Silicon/organic semiconductor heterojunctions for solar cells. Physica Status Solidi (A) Applications and Materials Science, 2009, 206, 2775-2781.	0.8	26
139	Surface chemistry and photoluminescence property of functionalized silicon nanoparticles. Physica E: Low-Dimensional Systems and Nanostructures, 2009, 41, 1010-1014.	1.3	24
140	Electrical properties of aluminum-doped zinc oxide (AZO) nanoparticles synthesized by chemical vapor synthesis. Nanotechnology, 2009, 20, 445701.	1.3	77
141	Gas-phase synthesis of non-agglomerated nanoparticles by fast gasdynamic heating and cooling. , 2009, , 857-862.		13
142	Light-induced charge transfer in hybrid composites of organic semiconductors and silicon nanocrystals. Applied Physics Letters, 2009, 94, .	1.5	38
143	Doping efficiency in freestanding silicon nanocrystals from the gas phase: Phosphorus incorporation and defect-induced compensation. Physical Review B, 2009, 80, .	1.1	106
144	Shock-tube study of the ignition delay time of tetraethoxysilane (TEOS). , 2009, , 781-785.		1

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145	Silicon Nanoparticles: Excitonic Fine Structure and Oscillator Strength. <i>Advances in Solid State Physics</i> , 2009, , 79-90.	0.8	5
146	Ga ₂ O ₃ nanoparticles synthesized in a low-pressure flame reactor. <i>Journal of Nanoparticle Research</i> , 2008, 10, 121-127.	0.8	6
147	Towards the implanting of ions and positioning of nanoparticles with nm spatial resolution. <i>Applied Physics A: Materials Science and Processing</i> , 2008, 91, 567-571.	1.1	64
148	Femtosecond transient absorption spectroscopy of silanized silicon quantum dots. <i>Physical Review B</i> , 2008, 77, .	1.1	19
149	In-situ Investigation of the Mechanical and Electrical Properties of Nanosized Silicon Powders. <i>Materials Research Society Symposia Proceedings</i> , 2008, 1083, 50601.	0.1	1
150	Electronic properties of doped silicon nanocrystal films. <i>Journal of Applied Physics</i> , 2008, 104, .	1.1	84
151	Electronic Transport in Phosphorus-Doped Silicon Nanocrystal Networks. <i>Physical Review Letters</i> , 2008, 100, 026803.	2.9	128
152	Microcrystalline silicon formation by silicon nanoparticles. <i>Journal of Applied Physics</i> , 2008, 103, .	1.1	43
153	Core and grain boundary sensitivity of tungsten-oxide sensor devices by molecular beam assisted particle deposition. <i>Journal of Applied Physics</i> , 2007, 102, 124305.	1.1	21
154	GaAs whiskers grown by metal-organic vapor-phase epitaxy using Fe nanoparticles. <i>Journal of Applied Physics</i> , 2007, 101, 054318.	1.1	19
155	Direct Assembly of Quantum Confined Nano-Particles. <i>Materials Research Society Symposia Proceedings</i> , 2007, 1017, 88.	0.1	1
156	Temperature-induced crossover between bright and dark exciton emission in silicon nanoparticles. <i>Europhysics Letters</i> , 2007, 79, 37002.	0.7	13
157	Silicon nanoparticles: Absorption, emission, and the nature of the electronic bandgap. <i>Journal of Applied Physics</i> , 2007, 101, 103112.	1.1	138
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