Hartmut Wiggers

List of Publications by Year
in descending order

188	5,315	76196	123241
papers	citations	40 h-index	61 g-index

193	193	193	5536
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	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
2	Synthesis of High Purity Silicon Nanoparticles in a Low Pressure Microwave Reactor. Journal of Nanoscience and Nanotechnology, 2004, 4, 1039-1044.	0.9	152
3	Silicon nanoparticles: Absorption, emission, and the nature of the electronic bandgap. Journal of Applied Physics, 2007, 101, 103112.	1.1	138
4	Raman properties of silicon nanoparticles. Physica E: Low-Dimensional Systems and Nanostructures, 2006, 32, 155-158.	1.3	135
5	Formation and properties of ZnO nano-particles from gas phase synthesis processes. Journal of Materials Science, 2002, 37, 4349-4360.	1.7	133
6	Electronic Transport in Phosphorus-Doped Silicon Nanocrystal Networks. Physical Review Letters, 2008, 100, 026803.	2.9	128
7	Parasitic Reactions in Nanosized Silicon Anodes for Lithium-Ion Batteries. Nano Letters, 2017, 17, 1512-1519.	4.5	122
8	Doping efficiency in freestanding silicon nanocrystals from the gas phase: Phosphorus incorporation and defect-induced compensation. Physical Review B, 2009, 80, .	1.1	106
9	Plasma synthesis of nanostructures for improved thermoelectric properties. Journal Physics D: Applied Physics, 2011, 44, 174034.	1.3	101
10	Gas-phase synthesis of functional nanomaterials: Challenges to kinetics, diagnostics, and process development. Proceedings of the Combustion Institute, 2019, 37, 83-108.	2.4	92
11	Phase Composition, Oxygen Content, and Thermal Conductivity of AlN(Y2O3) Ceramics. Journal of the American Ceramic Society, 1991, 74, 718-723.	1.9	90
12	SpraySynâ€"A standardized burner configuration for nanoparticle synthesis in spray flames. Review of Scientific Instruments, 2019, 90, 085108.	0.6	89
13	Electronic properties of doped silicon nanocrystal films. Journal of Applied Physics, 2008, 104, .	1.1	84
14	Electrical properties of aluminum-doped zinc oxide (AZO) nanoparticles synthesized by chemical vapor synthesis. Nanotechnology, 2009, 20, 445701.	1.3	77
15	Stabilization of mid-sized silicon nanoparticles by functionalization with acrylic acid. Nanoscale Research Letters, 2012, 7, 76.	3.1	74
16	Silicon/Polyaniline Nanocomposites as Anode Material for Lithium Ion Batteries. Journal of the Electrochemical Society, 2014, 161, A40-A45.	1.3	68
17	Silicon Particle Formation by Pyrolysis of Silane in a Hot Wall Gasphase Reactor. Chemical Engineering and Technology, 2001, 24, 261-264.	0.9	66
18	High-capacity cathodes for lithium-ion batteries from nanostructured LiFePO4 synthesized by highly-flexible and scalable flame spray pyrolysis. Journal of Power Sources, 2012, 216, 76-83.	4.0	66

#	Article	IF	Citations
19	Role of oxygen on microstructure and thermoelectric properties of silicon nanocomposites. Journal of Applied Physics, 2011, 110, 113515.	1.1	65
20	Towards the implanting of ions and positioning of nanoparticles with nm spatial resolution. Applied Physics A: Materials Science and Processing, 2008, 91, 567-571.	1.1	64
21	Formation of Si-nanoparticles in a microwave reactor: Comparison between experiments and modelling. Journal of Nanoparticle Research, 2005, 7, 29-41.	0.8	63
22	Thermally Induced Reactions between Lithiated Nano-Silicon Electrode and Electrolyte for Lithium-Ion Batteries. Journal of the Electrochemical Society, 2012, 159, A657-A663.	1.3	62
23	In situ nanoparticle size measurements of gas-borne silicon nanoparticles by time-resolved laser-induced incandescence. Applied Physics B: Lasers and Optics, 2014, 116, 623-636.	1.1	62
24	Direct self-assembly of Fe₂O₃/reduced graphene oxide nanocomposite for high-performance lithium-ion batteries. Journal of Materials Chemistry A, 2015, 3, 11566-11574.	5.2	58
25	Thermoelectric Properties of Nanocrystalline Silicon from a Scaledâ€Up Synthesis Plant. Advanced Engineering Materials, 2013, 15, 379-385.	1.6	57
26	Nanostructured gas sensors and electrical characterization of deposited SnO2 nanoparticles in ambient gas atmosphere. Sensors and Actuators B: Chemical, 2005, 109, 13-18.	4.0	56
27	Gas-Phase Synthesis of Nanoscale Silicon as an Economical Route towards Sustainable Energy Technology. KONA Powder and Particle Journal, 2011, 29, 191-207.	0.9	56
28	Thermoelectric effect in laser annealed printed nanocrystalline silicon layers. Physica Status Solidi - Rapid Research Letters, 2007, 1, 262-264.	1.2	54
29	Freestanding silicon quantum dots: origin of red and blue luminescence. Nanotechnology, 2011, 22, 055707.	1.3	54
30	Functionalization of silicon nanoparticles via hydrosilylation with 1-alkenes. Colloid and Polymer Science, 2007, 285, 729-736.	1.0	51
31	Nanocrystalline silicon: lattice dynamics and enhanced thermoelectric properties. Physical Chemistry Chemical Physics, 2014, 16, 25701-25709.	1.3	49
32	Chemical tailoring of the charging energy in metal cluster arrangements by use of bifunctional spacer molecules. Journal of Materials Chemistry, 1998, 8, 517-518.	6.7	48
33	Comparison of Micro- and Nanoscale Fe+3â€“Containing (Hematite) Particles for Their Toxicological Properties in Human Lung Cells In Vitro. Toxicological Sciences, 2012, 126, 173-182.	1.4	47
34	Lowâ€Cost Postâ€Growth Treatments of Crystalline Silicon Nanoparticles Improving Surface and Electronic Properties. Advanced Functional Materials, 2012, 22, 1190-1198.	7.8	44
35	Microcrystalline silicon formation by silicon nanoparticles. Journal of Applied Physics, 2008, 103, .	1.1	43
36	Gas-temperature imaging in a low-pressure flame reactor for nano-particle synthesis with multi-line NO-LIF thermometry. Applied Physics B: Lasers and Optics, 2007, 88, 373-377.	1.1	42

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37	Solution-Processed Networks of Silicon Nanocrystals: The Role of Internanocrystal Medium on Semiconducting Behavior. Journal of Physical Chemistry C, 2011, 115, 20120-20127.	1.5	41
38	Initial reaction steps during flame synthesis of iron-oxide nanoparticles. CrystEngComm, 2015, 17, 6930-6939.	1.3	41
39	Sprayâ€flame synthesis of La(Fe, Co)O₃ nanoâ€perovskites from metal nitrates. AICHE Journal, 2020, 66, e16748.	1.8	41
40	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
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	Light-induced charge transfer in hybrid composites of organic semiconductors and silicon nanocrystals. Applied Physics Letters, 2009, 94, .	1.5	38
43	Spatially resolved determination of thermal conductivity by Raman spectroscopy. Semiconductor Science and Technology, 2014, 29, 124005.	1.0	37
44	High Temperature Thermoelectric Device Concept Using Large Area PN Junctions. Journal of Electronic Materials, 2014, 43, 2376-2383.	1.0	36
45	Synthesis and characterization of nanowires formed by self-assembled iron particles. Nanotechnology, 2004, 15, 1665-1670.	1.3	35
46	Imaging measurements of atomic iron concentration withÂlaser-induced fluorescence in a nanoparticle synthesis flame reactor. Applied Physics B: Lasers and Optics, 2009, 94, 119-125.	1.1	35
47	From nanoparticles to nanocrystalline bulk: percolation effects in field assisted sintering of silicon nanoparticles. Nanotechnology, 2011, 22, 135601.	1.3	35
48	Infrared properties of silicon nanoparticles. Journal of Applied Physics, 2005, 97, 084306.	1.1	34
49	Defect reduction in silicon nanoparticles by low-temperature vacuum annealing. Applied Physics Letters, 2010, 96, .	1.5	34
50	Dielectric screening versus quantum confinement of phosphorus donors in silicon nanocrystals investigated by magnetic resonance. Physical Review B, 2009, 79, .	1.1	33
51	Siâ€“CNT/rGO Nanoheterostructures as Highâ€Performance Lithiumâ€Ionâ€Battery Anodes. ChemElectroChem, 2015, 2, 1983-1990.	1.7	33
52	Size analysis in low-pressure nanoparticle reactors: comparison of particle mass spectrometry with in situ probing transmission electron microscopy. Journal of Aerosol Science, 2002, 33, 833-841.	1.8	31
53	Gas-phase synthesis of iron oxide nanoparticles for improved magnetic hyperthermia performance. Journal of Alloys and Compounds, 2020, 824, 153814.	2.8	31
54	Surface functionalization of microwave plasma-synthesized silica nanoparticles for enhancing the stability of dispersions. Journal of Nanoparticle Research, 2014, 16, 1.	0.8	30

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55	The effect of Peltier heat during current activated densification. Applied Physics Letters, 2012, 101, .	1.5	29
56	Laser-based in situ measurement and simulation of gas-phase temperature and iron atom concentration in a pilot-plant nanoparticle synthesis reactor. Proceedings of the Combustion Institute, 2015, 35, 2299-2306.	2.4	29
57	Towards Mechanistic Understanding of Liquidâ€Phase Cinnamyl Alcohol Oxidation with tert â€Butyl Hydroperoxide over Nobleâ€Metalâ€Free LaCo 1â€“ x Fe x O 3 Perovskites. ChemPlusChem, 2019, 84, 1155-1163.	1.3	29
58	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
59	Large-scale synthesis of iron oxide/graphene hybrid materials as highly efficient photo-Fenton catalyst for water remediation. Environmental Technology and Innovation, 2021, 21, 101239.	3.0	29
60	Sprayâ€Flameâ€Synthesized LaCo 1â^' x Fe x O 3 Perovskite Nanoparticles as Electrocatalysts for Water and Ethanol Oxidation. ChemElectroChem, 2019, 6, 4266-4274.	1.7	28
61	Selective cyclohexene oxidation with O₂, H₂O₂ and tert-butyl hydroperoxide over spray-flame synthesized LaCo_{1â^'x}Fe_xO₃ nanoparticles. Catalysis Science and Technology, 2020, 10, 5196-5206.	2.1	28
62	Photoluminescence of GaAs nanowhiskers grown on Si substrate. Applied Physics Letters, 2004, 85, 6407-6408.	1.5	27
63	A novel magnetically-separable porous iron-oxide nanocomposite as an adsorbent for methylene blue (MB) dye. Journal of Environmental Chemical Engineering, 2016, 4, 3779-3787.	3.3	27
64	Experimental and numerical study of a HMDSO-seeded premixed laminar low-pressure flame for SiO2 nanoparticle synthesis. Proceedings of the Combustion Institute, 2017, 36, 1045-1053.	2.4	27
65	Synthesis of freestanding few-layer graphene in microwave plasma: The role of oxygen. Carbon, 2022, 186, 560-573.	5.4	27
66	Vibrational and defect states in SnOx nanoparticles. Journal of Applied Physics, 2006, 99, 113108.	1.1	26
67	Phosphorus doping of Si nanocrystals: Interface defects and charge compensation. Physica B: Condensed Matter, 2007, 401-402, 541-545.	1.3	26
68	Silicon/organic semiconductor heterojunctions for solar cells. Physica Status Solidi (A) Applications and Materials Science, 2009, 206, 2775-2781.	0.8	26
69	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
70	Surface chemistry and photoluminescence property of functionalized silicon nanoparticles. Physica E: Low-Dimensional Systems and Nanostructures, 2009, 41, 1010-1014.	1.3	24
71	Exchange-Coupled Donor Dimers in Nanocrystal Quantum Dots. Physical Review Letters, 2012, 108, 126806.	2.9	24
72	Impact of Ambient Pressure on Titania Nanoparticle Formation During Spray-Flame Synthesis. Journal of Nanoscience and Nanotechnology, 2015, 15, 9449-9456.	0.9	24

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73	Enhanced heterogeneous activation of peroxymonosulfate by Ruddlesden-Popper-type La2CoO4+Î´ nanoparticles for bisphenol A degradation. Chemical Engineering Journal, 2022, 429, 131447.	6.6	24
74	Effects of impurities on the lattice dynamics of nanocrystalline silicon for thermoelectric application. Journal of Materials Science, 2013, 48, 2836-2845.	1.7	23
75	Resonant Electronic Coupling Enabled by Small Molecules in Nanocrystal Solids. Nano Letters, 2014, 14, 3817-3826.	4.5	22
76	Microstructure and thermoelectric properties of Si-WSi2 nanocomposites. Acta Materialia, 2017, 125, 321-326.	3.8	22
77	Comparative study of flame-based SiO2 nanoparticle synthesis from TMS and HMDSO: SiO-LIF concentration measurement and detailed simulation. Proceedings of the Combustion Institute, 2019, 37, 1221-1229.	2.4	22
78	Electrical and optical properties of zeolite y supported sno2 nanoparticles. Colloid and Polymer Science, 1997, 275, 91-95.	1.0	21
79	Core and grain boundary sensitivity of tungsten-oxide sensor devices by molecular beam assisted particle deposition. Journal of Applied Physics, 2007, 102, 124305.	1.1	21
80	Synthesis of SnO2â^'x nanoparticles tuned between 0â©½xâ©½1 in a premixed low pressure H2/O2/Ar flame. Proceedings of the Combustion Institute, 2007, 31, 1805-1812.	2.4	21
81	Freestanding spherical silicon nanocrystals: A model system for studying confined excitons. Applied Physics Letters, 2010, 97, .	1.5	21
82	Artificially nanostructured n-type SiGe bulk thermoelectrics through plasma enhanced growth of alloy nanoparticles from the gas phase. Journal of Materials Research, 2011, 26, 1872-1878.	1.2	21
83	Synthesis of tailored WO3 and WOx (2.9<x<3) nanoparticles by adjusting the combustion conditions in a H2/O2/Ar premixed flame reactor. Proceedings of the Combustion Institute, 2011, 33, 1883-1890.	2.4	21
84	Efficiency Enhancement in Hybrid P3HT/Silicon Nanocrystal Solar Cells. Green, 2011, 1, .	0.4	21
85	Thermal conductivity of mesoporous films measured by Raman spectroscopy. Applied Physics Letters, 2014, 104, 161907.	1.5	21
86	Siliconâ€based nanocomposites for thermoelectric application. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 497-514.	0.8	21
87	Sprayâ€Flameâ€Prepared LaCo_{1â€“x}Fe_xO₃ Perovskite Nanoparticles as Active OER Catalysts: Influence of Fe Content and Lowâ€Temperature Heating. ChemElectroChem, 2020, 7, 2564-2574.	1.7	21
88	Laser-sintered thin films of doped SiGe nanoparticles. Applied Physics Letters, 2012, 100, 231907.	1.5	20
89	Light-induced nonthermal population of optical phonons in nanocrystals. Physical Review B, 2017, 95, .	1.1	20
90	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

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91	Detailed simulation of iron oxide nanoparticle forming flames: Buoyancy and probe effects. Proceedings of the Combustion Institute, 2019, 37, 1241-1248.	2.4	20
92	GaAs whiskers grown by metal-organic vapor-phase epitaxy using Fe nanoparticles. Journal of Applied Physics, 2007, 101, 054318.	1.1	19
93	Femtosecond transient absorption spectroscopy of silanized silicon quantum dots. Physical Review B, 2008, 77, .	1.1	19
94	Spray-flame synthesis of LaMO3 (Mâ€¯=â€¯Mn, Fe, Co) perovskite nanomaterials: Effect of spray droplet size and esterification on particle size distribution. Proceedings of the Combustion Institute, 2021, 38, 1279-1287.	2.4	19
95	Nanoparticle Formation and Behavior in Turbulent Spray Flames Investigated by DNS. Flow, Turbulence and Combustion, 2020, 105, 497-516.	1.4	19
96	Sintering of thin titanium dioxide nanoparticle films via photothermal processing with ultraviolet continuous-wave lasers. Applied Surface Science, 2013, 278, 336-340.	3.1	18
97	SnO2/TiO2 mixed oxide particles synthesized in doped premixed H2/O2/Ar flames. Proceedings of the Combustion Institute, 2005, 30, 2577-2584.	2.4	17
98	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
99	Direct gas phase synthesis of amorphous Si/C nanoparticles as anode material for lithium ion battery. Journal of Alloys and Compounds, 2021, 870, 159315.	2.8	17
100	Silicon nanocrystals dispersed in water: Photosensitizers for molecular oxygen. Applied Physics Letters, 2010, 96, 211901.	1.5	16
101	Self-assembled nano-silicon/graphite hybrid embedded in a conductive polyaniline matrix for the performance enhancement of industrial applicable lithium-ion battery anodes. Solid State Ionics, 2020, 344, 115117.	1.3	16
102	Spray-Flame Synthesis of LaMnO_{3+Î´} Nanoparticles for Selective CO Oxidation (SELOX). Energy & Fuels, 2021, 35, 4367-4376.	2.5	16
103	Atmospheric-pressure particle mass spectrometer for investigating particle growth in spray flames. Journal of Aerosol Science, 2021, 158, 105827.	1.8	16
104	Formation and In Situ Sizing of Î³-Fe2O3 Nanoparticles in a Microwave Flow Reactor. Journal of Nanoscience and Nanotechnology, 2001, 1, 221-225.	0.9	15
105	Morphology, structure and electrical properties of iron nanochains. Nanotechnology, 2006, 17, 3111-3115.	1.3	15
106	Quantum size effect of valence band plasmon energies in Si and SnO[sub x] nanoparticles. Journal of Vacuum Science & Technology B, 2006, 24, 1156.	1.3	15
107	Solid state NMR structural studies of the lithiation of nano-silicon:. Solid State Ionics, 2013, 249-250, 41-48.	1.3	15
108	Buoyancy induced limits for nanoparticle synthesis experiments in horizontal premixed low-pressure flat-flame reactors. Combustion Theory and Modelling, 2013, 17, 504-521.	1.0	15

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109	Three-Dimensional Percolation and Performance of Nanocrystal Field-Effect Transistors. Physical Review Applied, 2016, 5, .	1.5	15
110	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. Journal of Applied Electrochemistry, 2016, 46, 229-239.	1.5	15
111	The realization of a pn-diode using only silicon nanoparticles. Scripta Materialia, 2012, 67, 265-268.	2.6	14
112	Excimer laser doping using highly doped silicon nanoparticles. Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 2456-2462.	0.8	14
113	Morphology, thermoelectric properties and wetâ€chemical doping of laserâ€sintered germanium nanoparticles. Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 153-160.	0.8	14
114	Intra- and inter-nanocrystal charge transport in nanocrystal films. Nanoscale, 2018, 10, 8042-8057.	2.8	14
115	Temperature-induced crossover between bright and dark exciton emission in silicon nanoparticles. Europhysics Letters, 2007, 79, 37002.	0.7	13
116	Novel Material Properties Based on Flame-synthesized Nanomaterials. KONA Powder and Particle Journal, 2009, 27, 186-194.	0.9	13
117	Gas-phase synthesis of non-agglomerated nanoparticles by fast gasdynamic heating and cooling. , 2009, , 857-862.		13
118	A sintered nanoparticle p-n junction observed by a Seebeck microscan. Journal of Applied Physics, 2012, 111, .	1.1	13
119	Iron Oxide/Polymerâ€Based Nanocomposite Material for Hydrogen Sulfide Adsorption Applications. Chemical Engineering and Technology, 2014, 37, 1938-1944.	0.9	13
120	Inline coating of silicon nanoparticles in a plasma reactor: Reactor design, simulation and experiment. Materials Today: Proceedings, 2017, 4, S118-S127.	0.9	13
121	Controlled formation and size-selected deposition of indium nanoparticles from a microwave flow reactor on semiconductor surfaces. Applied Physics Letters, 2005, 87, 093105.	1.5	12
122	Photothermal laser processing of thin silicon nanoparticle films: on the impact of oxide formation on film morphology. Applied Physics A: Materials Science and Processing, 2012, 106, 853-861.	1.1	12
123	Conductivity studies on AgSbO3 channel structure by impedance spectroscopy. Solid State Ionics, 1998, 107, 111-116.	1.3	11
124	Synthesis and Ink-Jet Printing of Highly Luminescing Silicon Nanoparticles for Printable Electronics. Journal of Nanoscience and Nanotechnology, 2011, 11, 5028-5033.	0.9	11
125	A new thermoelectric concept using large area PN junctions. Materials Research Society Symposia Proceedings, 2013, 1543, 3-8.	0.1	11
126	Microwave plasma synthesis of Si/Ge and Si/WSi₂nanoparticles for thermoelectric applications. Journal Physics D: Applied Physics, 2015, 48, 314010.	1.3	11

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127	Thermoelectrics from silicon nanoparticles: the influence of native oxide. European Physical Journal B, 2015, 88, 1.	0.6	11
128	Multiscale Simulation of the Formation of Platinum-Particles on Alumina Nanoparticles in a Spray Flame Experiment. Fluids, 2020, 5, 201.	0.8	11
129	LES of nanoparticle synthesis in the spraysyn burner: A comparison against experiments. Powder Technology, 2022, 404, 117466.	2.1	11
130	Novel back-reflector architecture with nanoparticle based buried light-scattering microstructures for improved solar cell performance. Nanoscale, 2016, 8, 12035-12046.	2.8	10
131	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
132	Towards a framework for evaluating and reporting Hansen solubility parameters: applications to particle dispersions. Nanoscale Advances, 2021, 3, 4400-4410.	2.2	10
133	Liquidâ€Phase Cyclohexene Oxidation with O₂ over Sprayâ€Flameâ€Synthesized La_{1â^'x}Sr_xCoO₃ Perovskite Nanoparticles. Chemistry - A European Journal, 2021, 27, 16912-16923.	1.7	10
134	Stable Aqueous Dispersions of ZnO Nanoparticles for Ink-Jet Printed Gas Sensors. Journal of Nanoscience and Nanotechnology, 2011, 11, 10839-10843.	0.9	9
135	Direct gas-phase synthesis of single-phase Î²-FeSi2 nanoparticles. Journal of Nanoparticle Research, 2013, 15, 1.	0.8	9
136	Laser-doping of crystalline silicon substrates using doped silicon nanoparticles. Thin Solid Films, 2013, 548, 437-442.	0.8	9
137	Influence of carbon content, particle size, and partial manganese substitution on the electrochemical performance of LiFexMn1-xPO4/carbon composites. Ionics, 2015, 21, 1857-1866.	1.2	9
138	Ejector-based sampling from low-pressure aerosol reactors. Journal of Aerosol Science, 2018, 123, 105-115.	1.8	9
139	Plasmaâ€assisted gasâ€phase synthesis and inâ€line coating of silicon nanoparticles. Plasma Processes and Polymers, 2020, 17, 1900245.	1.6	9
140	Investigation of the combustion of iron pentacarbonyl and the formation of key intermediates in iron oxide synthesis flames. Chemical Engineering Science, 2021, 230, 116169.	1.9	9
141	Electronic transport through Si nanocrystal films: Spin-dependent conductivity studies. Physica B: Condensed Matter, 2007, 401-402, 527-530.	1.3	8
142	Lattice dynamics and thermoelectric properties of nanocrystalline siliconâ€“germanium alloys. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 515-523.	0.8	8
143	Novel Si-CNT/polyaniline nanocomposites as Lithium-ion battery anodes for improved cycling performance. Materials Today: Proceedings, 2017, 4, S263-S268.	0.9	8
144	Gasâ€Phase Synthesis of Siliconâ€Rich Silicon Nitride Nanoparticles for High Performance Lithiumâ€“Ion Batteries. Particle and Particle Systems Characterization, 2021, 38, 2100007.	1.2	8

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145	Early particle formation and evolution in iron-doped flames. Combustion and Flame, 2022, 244, 112251.	2.8	8
146	Synthesis of Germanium Oxide Nanoparticles in Low-Pressure Premixed Flames. Journal of Nanoscience and Nanotechnology, 2004, 4, 157-161.	0.9	7
147	Monodisperse titania microspheres via controlled nanoparticle aggregation. Physical Chemistry Chemical Physics, 2012, 14, 7490.	1.3	7
148	Separation of semiconducting and ferromagnetic FeSi2-nanoparticles by magnetic filtering. Journal of Applied Physics, 2013, 114, .	1.1	7
149	Depassivation kinetics in crystalline silicon nanoparticles. Physical Review B, 2013, 88, .	1.1	7
150	Structural and electronic properties ofÎ²-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>FeSi</mml:mi><mml:mn>2</mml:mn></mml:msub></mm The role of stacking fault domains. Physical Review B, 2014, 89, .	1.1	7
151	Mesoporous Sulfonated Carbon Materials Prepared by Spray Pyrolysis. ChemCatChem, 2015, 7, 2891-2896.	1.8	7
152	Microwave plasma-assisted silicon nanoparticles: cytotoxic, molecular, and numerical responses against cancer cells. RSC Advances, 2019, 9, 13336-13347.	1.7	7
153	Spray-flame synthesis of BaTi1-xZrxO3 nanoparticles for energy storage applications. Ceramics International, 2020, 46, 13915-13924.	2.3	7
154	Spray Flame Synthesis (SFS) of Lithium Lanthanum Zirconate (LLZO) Solid Electrolyte. Materials, 2021, 14, 3472.	1.3	7
155	Ga2O3 nanoparticles synthesized in a low-pressure flame reactor. Journal of Nanoparticle Research, 2008, 10, 121-127.	0.8	6
156	Nanocrystalline silicon compacted by spark-plasma sintering: Microstructure and thermoelectric properties. Materials Research Society Symposia Proceedings, 2010, 1267, 1.	0.1	6
157	Optoelectronic properties and depth profile of charge transport in nanocrystal films. Physical Review B, 2017, 96, .	1.1	6
158	Silicon Nanoparticle Films Infilled with Al₂O₃ Using Atomic Layer Deposition for Photosensor, Light Emission, and Photovoltaic Applications. ACS Applied Nano Materials, 2020, 3, 5033-5044.	2.4	6
159	Effect of Spray Parameters in a Spray Flame Reactor During FexOy Nanoparticles Synthesis. Journal of Thermal Spray Technology, 2020, 29, 368-383.	1.6	6
160	Properties of Flame Synthesized Germanium Oxide Nanoparticles. Journal of Nanoscience and Nanotechnology, 2005, 5, 436-441.	0.9	5
161	Electroluminescence from silicon nanoparticles fabricated from the gas phase. Nanotechnology, 2010, 21, 455201.	1.3	5
162	Optical and electrical properties of silicon nanoparticles. , 2010, , .		5

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163	Synthesis of Small Carbon Nanoparticles in a Microwave Plasma Flow Reactor. Zeitschrift Fur Physikalische Chemie, 2013, 227, 357-370.	1.4	5
164	Ignition delay times of shock-heated tetraethoxysilane, hexamethyldisiloxane, and titanium tetraisopropoxide. Chemical Physics Letters, 2014, 601, 54-58.	1.2	5
165	Laserâ€Assisted Wetâ€Chemical Doping of Sintered Si and Ge Nanoparticle Films. Advanced Electronic Materials, 2015, 1, 1400029.	2.6	5
166	Resonant photothermal laser processing of hybrid gold/titania nanoparticle films. Applied Surface Science, 2015, 336, 48-52.	3.1	5
167	Charge storage in Î²-FeSi2 nanoparticles. Journal of Applied Physics, 2015, 117, 054303.	1.1	5
168	Silicon Nanoparticles: Excitonic Fine Structure and Oscillator Strength. Advances in Solid State Physics, 2009, , 79-90.	0.8	5
169	Conductivity enhancement of Al- and Ta-substituted Li7La3Zr2O7 solid electrolytes by nanoparticles. Journal of the European Ceramic Society, 2022, 42, 1033-1041.	2.8	5
170	Electrical Transport in Semiconductor Nanoparticle Arrays: Conductivity, Sensing and Modeling. Nanoscience and Technology, 2012, , 231-271.	1.5	4
171	Structureâ€“activity correlation in aerobic cyclohexene oxidation and peroxide decomposition over Co_xFe_{3â^'x}O₄ spinel oxides. Catalysis Science and Technology, 2022, 12, 3594-3605.	2.1	4
172	Low temperature diffusion of Li atoms into Si nanoparticles and surfaces. Journal of Applied Physics, 2013, 114, 034310.	1.1	3
173	Towards solar cell emitters based on colloidal Si nanocrystals. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 156-161.	0.8	3
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