

# Stefano Ossicini

## List of Publications by Year in descending order

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185  
papers

6,729  
citations

87723

38  
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69108

77  
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193  
all docs

193  
docs citations

193  
times ranked

5022  
citing authors

#	ARTICLE	IF	CITATIONS
1	Porous silicon: a quantum sponge structure for silicon based optoelectronics. Surface Science Reports, 2000, 38, 1-126.	3.8	1,256
2	Second-harmonic generation in silicon waveguides strained by silicon nitride. Nature Materials, 2012, 11, 148-154.	13.3	280
3	Light Emitting Silicon for Microphotonics. Springer Tracts in Modern Physics, 2003, , .	0.1	237
4	Self-energy and excitonic effects in the electronic and optical properties of $\text{TiO}_2$ phases. Physical Review B, 2010, 82, .	1.1	236
5	Role of the interface region on the optoelectronic properties of silicon nanocrystals embedded in $\text{SiO}_2$ . Physical Review B, 2003, 68, .	1.1	235
6	First-principles study of n- and p-doped silicon nanoclusters. Physical Review B, 2005, 72, .	1.1	188
7	Dynamics of stimulated emission in silicon nanocrystals. Applied Physics Letters, 2003, 82, 4636-4638.	1.5	151
8	From Si Nanowires to Porous Silicon: The Role of Excitonic Effects. Physical Review Letters, 2007, 98, 036807.	2.9	151
9	Silicon-Germanium Nanowires: Chemistry and Physics in Play, from Basic Principles to Advanced Applications. Chemical Reviews, 2014, 114, 1371-1412.	23.0	151
10	Ab initio study on oxidized silicon clusters and silicon nanocrystals embedded in $\text{SiO}_2$ : Beyond the quantum confinement effect. Physical Review B, 2005, 71, .	1.1	143
11	Ab initio structural and electronic properties of hydrogenated silicon nanoclusters in the ground and excited state. Physical Review B, 2004, 69, .	1.1	117
12	Carrier multiplication between interacting nanocrystals for fostering silicon-based photovoltaics. Nature Photonics, 2012, 6, 672-679.	15.6	111
13	AES analysis of the growth mechanism of metal layers on metal surfaces. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1985, 3, 387-391.	0.9	103
14	Simultaneously B- and P-doped silicon nanoclusters: Formation energies and electronic properties. Applied Physics Letters, 2005, 87, 173120.	1.5	95
15	Excitons in germanium nanowires: Quantum confinement, orientation, and anisotropy effects within a first-principles approach. Physical Review B, 2005, 72, .	1.1	93
16	Engineering silicon nanocrystals: Theoretical study of the effect of codoping with boron and phosphorus. Physical Review B, 2007, 76, .	1.1	81
17	Image Plane for Surface Potential. Europhysics Letters, 1986, 1, 661-667.	0.7	76
18	Multiple Si=O bonds at the silicon cluster surface. Journal of Applied Physics, 2003, 94, 2130-2132.	1.1	75

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19	Optical emission from small Si particles. Solid State Communications, 1997, 102, 545-549.	0.9	69
20	Size, oxidation, and strain in small $\text{Si}$ . Physical Review B, 2009, 80, .	1.1	68
21	Quasiparticle Band Structure of NiO: The Mott-Hubbard Picture Regained. Physical Review Letters, 1994, 73, 3129-3132.	2.9	67
22	Preferential Positioning of Dopants and Co-Dopants in Embedded and Freestanding Si Nanocrystals. Journal of the American Chemical Society, 2014, 136, 4404-4409.	6.6	66
23	On the use of the Auger technique for quantitative analysis of overlayers. Thin Solid Films, 1983, 109, 159-167.	0.8	65
24	Band-Offset Driven Efficiency of the Doping of SiGe Core-Shell Nanowires. Nano Letters, 2011, 11, 594-598.	4.5	63
25	The electronic and optical properties of Si/SiO <sub>2</sub> superlattices: role of confined and defect states. Surface Science, 2000, 470, 32-42.	0.8	60
26	First-principles optical properties of silicon and germanium nanowires. Surface Science, 2007, 601, 2707-2711.	0.8	58
27	Excitons in silicon nanocrystallites: The nature of luminescence. Physical Review B, 2007, 75, .	1.1	57
28	Silicon nanocrystallites in a $\text{SiO}_2$ matrix: Role of disorder and size. Physical Review B, 2009, 79, .	1.1	57
29	Structural, electronic, and surface properties of anatase $\text{TiO}_2$ from first principles. Physical Review B, 2008, 78, .	1.1	56
30	High luminescence in small $\text{Si/SiO}_2$ nanocrystals: A theoretical study. Physical Review B, 2010, 81, .	1.1	51
31	Reduced quantum confinement effect and electron-hole separation in SiGe nanowires. Physical Review B, 2009, 79, .	1.1	48
32	SiGe nanowires: Structural stability, quantum confinement, and electronic properties. Physical Review B, 2009, 80, .	1.1	47
33	Effect of oxygen on the optical properties of small silicon pyramidal clusters. Physical Review B, 2002, 65, .	1.1	45
34	Light Emission at Room Temperature from $\text{Si/CaF}_2$ Multilayers. Europhysics Letters, 1995, 31, 25-30.	0.7	43
35	Electron states and luminescence transition in porous silicon. Physical Review B, 1996, 53, 4557-4564.	1.1	41
36	Silicon and Germanium Nanostructures for Photovoltaic Applications: Ab-Initio Results. Nanoscale Research Letters, 2010, 5, 1637-1649.	3.1	41

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37	The influence of a rare-gas matrix on the electronic levels of isolated atoms. Journal of Chemical Physics, 1980, 73, 5997-6002.	1.2	39
38	Orientation effects in the electronic and optical properties of germanium quantum wires. Physical Review B, 2004, 70, .	1.1	38
39	Chemical bond and electronic states at the CaF <sub>2</sub> -Si(111) and Ca-Si(111) interfaces. Physical Review B, 1991, 43, 9823-9830.	1.1	37
40	Structural features and electronic properties of group-III-, group-IV-, and group-V-doped Si nanocrystallites. Journal of Physics Condensed Matter, 2007, 19, 466211.	0.7	37
41	Auger recombination in Si and GaAs semiconductors: Ab initio results. Physical Review B, 2011, 84, .	1.1	36
42	Hydrogen covered Si(111) surfaces. Surface Science, 1992, 269-270, 879-885.	0.8	35
43	Optical properties of isolated and interacting silicon quantum wires. Thin Solid Films, 1997, 297, 154-162.	0.8	35
44	Oxygen vacancy effects on the Schottky barrier height at the Au/TiO <sub>2</sub> (110) interface: A first principle study. Solid State Communications, 2008, 147, 205-207.	0.9	35
45	Effects of simultaneous doping with boron and phosphorous on the structural, electronic and optical properties of silicon nanostructures. Physica E: Low-Dimensional Systems and Nanostructures, 2009, 41, 939-946.	1.3	35
46	Covalency in the adsorption of Na on Si(111). Physical Review B, 1990, 42, 7671-7674.	1.1	34
47	Screening in semiconductor nanocrystals: Ab initio results and Thomas-Fermi theory. Physical Review B, 2006, 73, .	1.1	34
48	Silicon nanocrystals in carbide matrix. Solar Energy Materials and Solar Cells, 2014, 128, 138-149.	3.0	34
49	Determination of the Electronic Energy Levels of Colloidal Nanocrystals using Field-Effect Transistors and Ab Initio Calculations. Advanced Materials, 2014, 26, 5639-5645.	11.1	33
50	Doped and codoped silicon nanocrystals: The role of surfaces and interfaces. Progress in Surface Science, 2017, 92, 375-408.	3.8	33
51	Understanding Doping In Silicon Nanostructures. IEEE Journal of Selected Topics in Quantum Electronics, 2006, 12, 1585-1591.	1.9	32
52	Gap opening in ultrathin Si layers: Role of confined and interface states. Physical Review Letters, 1994, 72, 1044-1047.	2.9	31
53	Optical absorption spectra of doped and codoped Si nanocrystallites. Physical Review B, 2008, 78, .	1.1	31
54	Doping in silicon nanocrystals: An ab initio study of the structural, electronic and optical properties. Journal of Luminescence, 2006, 121, 335-339.	1.5	30

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55	Red-Shifted Carrier Multiplication Energy Threshold and Exciton Recycling Mechanisms in Strongly Interacting Silicon Nanocrystals. <i>Journal of the American Chemical Society</i> , 2014, 136, 13257-13266.	6.6	29
56	Matrix effects in the optical spectra of alkali atoms trapped in Ar, Kr, and Xe matrices: A pseudopotential calculation. <i>Journal of Chemical Physics</i> , 1981, 75, 2076-2079.	1.2	28
57	The electronic and optical properties of silicon nanoclusters: absorption and emission. <i>Optical Materials</i> , 2005, 27, 1008-1013.	1.7	28
58	Ab-initio calculations of luminescence and optical gain properties in silicon nanostructures. <i>Comptes Rendus Physique</i> , 2009, 10, 575-586.	0.3	28
59	Optical Properties of Confined Si Structures. <i>Physica Status Solidi A</i> , 1998, 170, 377-390.	1.7	27
60	Structural and Optical Properties of Silicon Nanocrystals Grown by Plasma-Enhanced Chemical Vapor Deposition. <i>Journal of Nanoscience and Nanotechnology</i> , 2001, 1, 159-168.	0.9	26
61	Novel optoelectronic properties of simultaneously n- and p-doped silicon nanostructures. <i>Superlattices and Microstructures</i> , 2008, 44, 337-347.	1.4	26
62	Density-functional calculation of atomic structure with nonlocal exchange and correlation. <i>Physical Review A</i> , 1985, 31, 3550-3556.	1.0	25
63	Non-local exchange and correlation in the jellium model of surfaces. <i>Surface Science</i> , 1986, 178, 244-255.	0.8	25
64	Electronic structure of Si(111)-NiSi <sub>2</sub> (111)A-type and B-type interfaces. <i>Physical Review B</i> , 1990, 42, 5735-5743.	1.1	25
65	First-Principles Study of Silicon Nanocrystals: Structural and Electronic Properties, Absorption, Emission, and Doping. <i>Journal of Nanoscience and Nanotechnology</i> , 2008, 8, 479-492.	0.9	25
66	Oxygen role on the structural and optoelectronic properties of silicon nanodots. <i>Physica Status Solidi A</i> , 2003, 197, 251-256.	1.7	24
67	First-principles optical properties of Si/CaF <sub>2</sub> multiple quantum wells. <i>Physical Review B</i> , 1998, 57, 14776-14782.	1.1	23
68	Electron density profiles at charged metal surfaces in the weighted density approximation. <i>Surface Science</i> , 1987, 189-190, 776-781.	0.8	22
69	Ab initio optoelectronic properties of SiGe nanowires: Role of many-body effects. <i>Physical Review B</i> , 2010, 82, .	1.1	22
70	Thomas-Fermi model of electronic screening in semiconductor nanocrystals. <i>Europhysics Letters</i> , 2006, 74, 519-525.	0.7	21
71	Silicon Nanoscale Materials: From Theoretical Simulations to Photonic Applications. <i>International Journal of Photoenergy</i> , 2012, 2012, 1-21.	1.4	21
72	First principle investigation of the electronic properties of silicon-silicide interfaces. <i>Surface Science</i> , 1987, 189-190, 285-293.	0.8	20

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73	Optical properties of silicon nanocrystallites in SiO <sub>2</sub> matrix: Crystalline vs. amorphous case. Superlattices and Microstructures, 2009, 46, 246-252.	1.4	20
74	Electron Transport in SiGe Alloy Nanowires in the Ballistic Regime from First-Principles. Nano Letters, 2012, 12, 2717-2721.	4.5	20
75	Giant excitonic exchange splitting in Si nanowires: First-principles calculations. Physical Review B, 2010, 81, .	1.1	19
76	Optical absorption and emission of silicon nanocrystals: From single to collective response. Journal of Applied Physics, 2013, 113, 143505.	1.1	19
77	Tuning the Work Function of Si(100) Surface by Halogen Absorption: A DFT Study. Physica Status Solidi C: Current Topics in Solid State Physics, 2017, 14, .	0.8	19
78	Interaction potential between rare-gas atoms and metal surfaces. Physical Review B, 1986, 33, 873-878.	1.1	18
79	Electronic structure of PrBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> : A local-spin-density approximation with on-site Coulomb interaction. Physical Review B, 1995, 52, 10468-10473.	1.1	18
80	Role of symmetry reduction in the polarization dependence of the optical absorption in non-common-atom superlattices. Physical Review B, 1998, 58, R1742-R1745.	1.1	18
81	Local-field effects in silicon nanoclusters. Physical Review B, 2011, 84, .	1.1	17
82	First-principles calculations of electronic coupling effects in silicon nanocrystals: Influence on near band-edge states and on carrier multiplication processes. Solar Energy Materials and Solar Cells, 2016, 145, 162-169.	3.0	17
83	Segregation, quantum confinement effect and band offset for [110] SiGe NWs. Physica Status Solidi (B): Basic Research, 2010, 247, 2096-2101.	0.7	16
84	Silicon quantum dots embedded in a SiO <sub>2</sub> matrix: From structural study to carrier transport properties. Physical Review B, 2013, 88, .	1.1	16
85	Selfconsistent LMTO calculation for semiconductor clean surfaces. Surface Science, 1989, 211-212, 572-577.	0.8	15
86	Carrier multiplication in silicon nanocrystals: ab initio results. Beilstein Journal of Nanotechnology, 2015, 6, 343-352.	1.5	15
87	The electronic properties of the CaF <sub>2</sub> /Si(111) system: from monolayer coverage to solid-solid interface. Surface Science, 1992, 269-270, 743-747.	0.8	14
88	Silicon nanocrystals from high-temperature annealing: Characterization on device level. Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 669-675.	0.8	14
89	Simple metal surfaces and image potential states. Vacuum, 1990, 41, 535-537.	1.6	13
90	Auger lineshape analysis of porous silicon: experiment and theory. Thin Solid Films, 1996, 276, 244-247.	0.8	13

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91	Optical properties of Ge and Si nanosheetsâ€™ confinement and symmetry effects. Surface Science, 2003, 527, 30-40.	0.8	13
92	Band structure analysis in SiGe nanowires. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2012, 177, 705-711.	1.7	13
93	Role of strain in interacting silicon nanoclusters. Physical Review B, 2013, 87, .	1.1	13
94	Energetics and carrier transport in doped Si/SiO <sub>2</sub> quantum dots. Nanoscale, 2015, 7, 12564-12571.	2.8	13
95	Luminescence in porous silicon: the role of confinement and passivation. Applied Surface Science, 1996, 102, 395-398.	3.1	12
96	True direct gap absorption in germanium quantum films. Physical Review B, 2002, 65, .	1.1	12
97	Ab Initio Electronic Gaps of Ge Nanodots: The Role of Self-Energy Effects. Journal of Physical Chemistry C, 2013, 117, 14229-14234.	1.5	12
98	Image-force effects on the barrier height for metal-metal tunneling electrons. Physical Review B, 1987, 35, 848-850.	1.1	11
99	Role of defects in Si/SiO <sub>2</sub> quantum wells. Optical Materials, 2001, 17, 95-98.	1.7	11
100	Doping in silicon nanocrystals. Surface Science, 2007, 601, 2724-2729.	0.8	11
101	Doping in silicon nanostructures. Physica Status Solidi (A) Applications and Materials Science, 2007, 204, 1312-1317.	0.8	11
102	Engineering Quantum Confined Silicon Nanostructures: Ab-Initio Study of the Structural, Electronic and Optical Properties. Advances in Quantum Chemistry, 2009, 58, 203-279.	0.4	11
103	The influence of silicon nanoclusters on the optical properties of a-SiN <sub>x</sub> samples: A theoretical study. Applied Physics Letters, 2012, 100, 181905.	1.5	11
104	Optical absorption modulation by selective codoping of SiGe core-shell nanowires. Journal of Applied Physics, 2012, 112, .	1.1	11
105	Structural and electronic properties of Si <sub>1-x</sub> Ge <sub>x</sub> alloy nanowires. Journal of Applied Physics, 2014, 116, 154301.	1.1	11
106	From Undulating Si Quantum Wires to Si Quantum Dots: A Model for Porous Silicon. Physica Status Solidi A, 2000, 182, 301-306.	1.7	10
107	First-principles electronic structure of rare-earth arsenides. European Physical Journal B, 2001, 23, 191-199.	0.6	10
108	Defects and strain enhancements of second-harmonic generation in Si/Ge superlattices. Journal of Chemical Physics, 2014, 140, 214705.	1.2	10

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109	Strain-designed strategy to induce and enhance second-harmonic generation in centrosymmetric and noncentrosymmetric materials. <i>Physical Review B</i> , 2015, 92, .	1.1	10
110	Work Function Measurement of Silicon Germanium Heterostructures Combining Kelvin Force Microscopy and X-ray Photoelectron Emission Microscopy. <i>Journal of Physical Chemistry C</i> , 2015, 119, 26776-26782.	1.5	10
111	Preferential Positioning, Stability, and Segregation of Dopants in Hexagonal Si Nanowires. <i>Nano Letters</i> , 2019, 19, 866-876.	4.5	10
112	Removal of orbital degeneracy of the atomic P state for the matrix isolated metal atoms. <i>Journal of Chemical Physics</i> , 1985, 82, 3988-3995.	1.2	9
113	Si/CaF <sub>2</sub> Superlattices. A Direct Gap Structure Due to Interface State Coupling. <i>Physica Status Solidi (B): Basic Research</i> , 1995, 190, 117-122.	0.7	9
114	Local fields and disorder effects in free-standing and embedded Si nanocrystallites. <i>Physica Status Solidi (B): Basic Research</i> , 2010, 247, 2113-2117.	0.7	9
115	First Principle Studies of B and P Doped Si Nanocrystals. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2018, 215, 1700414.	0.8	9
116	Matrix trapping site for H atoms in solid Ne and Ar. <i>Chemical Physics</i> , 1982, 66, 333-337.	0.9	8
117	Self-trapped exciton bubble size growth in solid neon. <i>Journal of Physics and Chemistry of Solids</i> , 1985, 46, 123-126.	1.9	8
118	Theoretical approaches to the Schottky barrier problem. <i>Applied Surface Science</i> , 1992, 56-58, 290-300.	3.1	8
119	Doping of SiGe core-shell nanowires. <i>Journal of Computational Electronics</i> , 2012, 11, 272-279.	1.3	8
120	Isolated noble metal atoms in a neon matrix. <i>Inorganic Chemistry</i> , 1982, 21, 1755-1757.	1.9	7
121	Hole Filling and Interlayer Coupling in YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> /PrBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> Superlattices. <i>Europhysics Letters</i> , 1995, 31, 317-322.	0.7	7
122	Electronic structure of rare earth arsenide/gallium arsenide superlattices. <i>Solid State Communications</i> , 1996, 100, 477-480.	0.9	7
123	Electronic structure of the 1Å—1YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> /PrBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> superlattice: A local-spin-density approximation with on-site Coulomb interaction. <i>Physical Review B</i> , 1996, 54, 1404-1409.	1.1	7
124	The electronic and optical properties of InGaAs/InP and InAlAs/InP superlattices. <i>Surface Science</i> , 2001, 489, 59-71.	0.8	7
125	In-plane anisotropy of the optical properties of(In <sub>0.5</sub> Ga <sub>0.5</sub> As) <sub>n</sub> /(InP) <sub>n</sub> superlattices. <i>Physical Review B</i> , 2001, 63, .	1.1	7
126	Oxygen role on the optoelectronic properties of silicon nanodots. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2003, 101, 34-38.	1.7	7



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127	Many-body effects on the electronic and optical properties of Si nanowires from <i>ab initio</i> approaches. <i>Physica Status Solidi (B): Basic Research</i> , 2010, 247, 2089-2095.	0.7	7
128	Understanding doping at the nanoscale: the case of codoped Si and Ge nanowires. <i>Journal Physics D: Applied Physics</i> , 2014, 47, 394013.	1.3	7
129	Work function bowing in Si <sub>1-x</sub> Ge <sub>x</sub> heterostructures: <i>Ab initio</i> results. <i>Journal of Applied Physics</i> , 2016, 119, .	1.1	7
130	Surface chemistry effects on work function, ionization potential and electronic affinity of Si(100), Ge(100) surfaces and SiGe heterostructures. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 25593-25605.	1.3	7
131	Electronic structure of the (111) ideal and relaxed surface of silicon by the chemical pseudopotential method. <i>Solid State Communications</i> , 1979, 30, 309-313.	0.9	6
132	Image potential at metal surfaces. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1987, 5, 727-730.	0.9	6
133	Symmetry and passivation dependence of the optical properties of nanocrystalline silicon structures. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2000, 69-70, 444-448.	1.7	6
134	Monte Carlo simulation of electron transport in Si/SiO <sub>2</sub> superlattices: Vertical transport enhanced by a parallel field. <i>Physical Review B</i> , 2002, 66, .	1.1	6
135	<i>Ab-initio</i> electronic and optical properties of low dimensional systems: From single particle to many-body approaches. <i>Surface Science</i> , 2007, 601, 2696-2701.	0.8	6
136	Large crystal local-field effects in second-harmonic generation of a Si/CaF <sub>2</sub> interface: An <i>ab initio</i> study. <i>Physical Review B</i> , 2012, 86, .	1.1	6
137	Conductance fluctuations in Si nanowires studied from first-principles. <i>Journal of Applied Physics</i> , 2014, 116, 074303.	1.1	6
138	Multiple exciton generation in isolated and interacting silicon nanocrystals. <i>Nanoscale</i> , 2021, 13, 12119-12142.	2.8	6
139	Electronic vacancy states in silicon by the chemical pseudopotential method. <i>Solid State Communications</i> , 1978, 28, 141-145.	0.9	5
140	Silicon Nanostructures: Wells, Wires, and Dots. <i>Springer Tracts in Modern Physics</i> , 2003, , 123-178.	0.1	5
141	Formation energies of silicon nanocrystals: role of dimension and passivation. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2005, 2, 3354-3358.	0.8	5
142	Electronic properties and dielectric response of surfaces and nanowires of silicon from <i>ab-initio</i> approaches. <i>Superlattices and Microstructures</i> , 2009, 46, 234-239.	1.4	5
143	<i>Ab initio</i> studies of the optoelectronic structure of undoped and doped silicon nanocrystals and nanowires: the role of size, passivation, symmetry and phase. <i>Faraday Discussions</i> , 2020, 222, 217-239.	1.6	5
144	Carrier Multiplication in Silicon Nanocrystals: Theoretical Methodologies and Role of the Passivation. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2017, 14, 1700198.	0.8	5

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145	Gain Theory And Models In Silicon Nanostructures. , 2003, , 261-280.		5
146	Initial formation of the CaF <sub>2</sub> interface: a theoretical study. Surface Science, 1991, 251-252, 462-466.	0.8	4
147	Doping of III-V Arsenide and Phosphide Wurtzite Semiconductors. Journal of Physical Chemistry C, 2020, 124, 27203-27212.	1.5	4
148	Matrix influence on the optical spectra of isolated Mg and Ca atoms. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1983, 2, 874-882.	0.4	3
149	Optical properties of Si/CaF <sub>2</sub> superlattices. Journal of Luminescence, 1998, 80, 411-415.	1.5	3
150	Si nanostructures embedded in SiO <sub>2</sub> : electronic and optical properties. , 2002, 4808, 73.		3
151	P and B single- and co-doped silicon nanocrystals: formation and activation energies, electronic and optical properties. , 0, , .		3
152	Ab initio energy loss spectra of Si and Ge nanowires. Physical Chemistry Chemical Physics, 2015, 17, 29085-29089.	1.3	3
153	First Principles Modeling of Si/Ge Nanostructures for Photovoltaic and Optoelectronic Applications. Physica Status Solidi (B): Basic Research, 2018, 255, 1700627.	0.7	3
154	Chemical pseudopotential and semiconductor surface states. Societa Italiana Di Fisica Nuovo Cimento B-General Physics, Relativity Astronomy and Mathematical Physics and Methods, 1977, 39, 786-790.	0.2	2
155	The Electronic Properties of Silicon-Silicide Epitaxial Interfaces. Materials Research Society Symposia Proceedings, 1987, 102, 315.	0.1	2
156	The electronic properties of Si <sub>3</sub> N <sub>2</sub> (111) epitaxial interfaces. Vacuum, 1990, 41, 681-683.	1.6	2
157	Fermi-level pinning and interface states at Pb <sup>2+</sup> -Si(111) interface. Solid State Communications, 1992, 82, 863-866.	0.9	2
158	First-principles investigation of the electronic structure of Si-based layered structures. Surface Science, 1994, 307-309, 984-988.	0.8	2
159	The luminescence transition in porous silicon: the nature of the electronic states. Thin Solid Films, 1996, 276, 261-264.	0.8	2
160	Monte Carlo analysis of electron heating in Si/SiO <sub>2</sub> superlattices. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 16, 455-460.	1.3	2
161	Electronic, structural and optical properties of hydrogenated silicon nanocrystals: the role of the excited states. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 3263-3267.	0.8	2
162	Impurity screening in silicon nanocrystals. Physica E: Low-Dimensional Systems and Nanostructures, 2009, 41, 966-968.	1.3	2

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163	Silicon-Based Light Sources. Series in Optics and Optoelectronics, 2013, , 333-438.	0.0	2
164	Electronic Properties of Low Dimensional Silicon Structures. , 1993, , 219-228.		2
165	The He <sup>+</sup> -(1s, 2s) + Ne interaction potential. Physics Letters, Section A: General, Atomic and Solid State Physics, 1985, 110, 451-452.	0.9	1
166	The optical transition in porous Si: The effects of quantum confinement, surface states and hydrogen passivation. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1996, 18, 1121-1129.	0.4	1
167	Electronic and optical properties of Si and Ge nanocrystals: An ab initio study. Superlattices and Microstructures, 2010, 47, 178-181.	1.4	1
168	Photonic Properties of Silicon-Based Materials. International Journal of Photoenergy, 2012, 2012, 1-2.	1.4	1
169	Electronic structure of thin Si layers in CaF <sub>2</sub> : Hybridization versus confinement. Solid-State Electronics, 1994, 37, 1145-1147.	0.8	0
170	Si/CaF <sub>2</sub> superlattices: a silicon light-emitting nanostructure. , 1996, 2777, 27.		0
171	Ab-Initio Calculation of the Optical Properties of Silicon Quantum Wires. Materials Research Society Symposia Proceedings, 1996, 452, 63.	0.1	0
172	Monte Carlo simulation of electron transport in Si/SiO <sub>2</sub> superlattices. , 2002, , .		0
173	Isolated and Embedded Silicon Based Nanodots: the Role of Surface Oxygen. Materials Research Society Symposia Proceedings, 2002, 737, 17.	0.1	0
174	Semiclassical and Quantum Transport in Si/SiO <sub>2</sub> Superlattices. Journal of Computational Electronics, 2003, 2, 417-422.	1.3	0
175	Surface and confinement effects on the optical and structural properties of silicon nanocrystals. , 2003, 5222, 1.		0
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