Christophe Delerue

List of Publications by Year
in descending order

200	13,221	28274	23533
papers	citations	55 h-index	111 g-index

204	204	204	9940
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Electronic States and Luminescence in Porous Silicon Quantum Dots: The Role of Oxygen. Physical Review Letters, 1999, 82, 197-200.	7.8	1,865
2	Size-Dependent Optical Properties of Colloidal PbS Quantum Dots. ACS Nano, 2009, 3, 3023-3030.	14.6	1,024
3	Theoretical aspects of the luminescence of porous silicon. Physical Review B, 1993, 48, 11024-11036.	3.2	921
4	Electronic structure and optical properties of silicon crystallites: Application to porous silicon. Applied Physics Letters, 1992, 61, 1948-1950.	3.3	462
5	Nature of Luminescent Surface States of Semiconductor Nanocrystallites. Physical Review Letters, 1996, 76, 2961-2964.	7.8	317
6	Quantum confinement in germanium nanocrystals. Applied Physics Letters, 2000, 77, 1182-1184.	3.3	296
7	Confinement effects in PbSe quantum wells and nanocrystals. Physical Review B, 2004, 70, .	3.2	246
8	Ionization energy of donor and acceptor impurities in semiconductor nanowires: Importance of dielectric confinement. Physical Review B, 2007, 75, .	3.2	246
9	Assessment of carrier-multiplication efficiency in bulk PbSe and PbS. Nature Physics, 2009, 5, 811-814.	16.7	245
10	Nanostructures. Nanoscience and Technology, 2004, , .	1.5	229
11	Screening in Semiconductor Nanocrystallites and Its Consequences for Porous Silicon. Physical Review Letters, 1995, 74, 3415-3418.	7.8	221
12	Electronic structure of semiconductor nanowires. Physical Review B, 2006, 73, .	3.2	201
13	Method for tight-binding parametrization: Application to silicon nanostructures. Physical Review B, 2000, 62, 5109-5116.	3.2	194
14	Electronic Structure of Amorphous Silicon Nanoclusters. Physical Review Letters, 1997, 78, 3161-3164.	7.8	191
15	Transition-metal impurities in semiconductors and heterojunction band lineups. Physical Review B, 1988, 38, 7723-7739.	3.2	186
16	Frequency-Dependent Spontaneous Emission Rate from CdSe and CdTe Nanocrystals: Influence of Dark States. Physical Review Letters, 2005, 95, 236804.	7.8	174
17	Theory of electrical rectification in a molecular monolayer. Physical Review B, 2001, 64, .	3.2	165
18	Excitonic and Quasiparticle Gaps in Si Nanocrystals. Physical Review Letters, 2000, 84, 2457-2460.	7.8	162

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19	Concept of dielectric constant for nanosized systems. Physical Review B, 2003, 68, .	3.2	158
20	Molecular Rectifying Diodes from Self-Assembly on Silicon. Nano Letters, 2003, 3, 741-746.	9.1	157
21	Effects of Strain on the Carrier Mobility in Silicon Nanowires. Nano Letters, 2012, 12, 3545-3550.	9.1	137
22	Theory of radiative and nonradiative transitions for semiconductor nanocrystals. Journal of Luminescence, 1996, 70, 170-184.	3.1	134
23	Comparative Study on the Localized Surface Plasmon Resonance of Boron- and Phosphorus-Doped Silicon Nanocrystals. ACS Nano, 2015, 9, 378-386.	14.6	133
24	Mercury Telluride Colloidal Quantum Dots: Electronic Structure, Size-Dependent Spectra, and Photocurrent Detection up to 12 Î¼m. ACS Nano, 2014, 8, 8676-8682.	14.6	130
25	High charge mobility in two-dimensional percolative networks of PbSe quantum dots connected by atomic bonds. Nature Communications, 2015, 6, 8195.	12.8	125
26	Role of impact ionization in multiple exciton generation in PbSe nanocrystals. Physical Review B, 2006, 73, .	3.2	124
27	Hydrogenic impurity levels, dielectric constant, and Coulomb charging effects in silicon crystallites. Physical Review B, 1995, 52, 11982-11988.	3.2	123
28	Auger and Coulomb Charging Effects in Semiconductor Nanocrystallites. Physical Review Letters, 1995, 75, 2228-2231.	7.8	119
29	Energy transfer between semiconductor nanocrystals: Validity of FÃ¶rsterâ€™s theory. Physical Review B, 2007, 75, .	3.2	119
30	Self-consistent calculations of the optical properties of GaN quantum dots. Physical Review B, 2003, 68, .	3.2	99
31	Continuous-wave infrared optical gain and amplified spontaneous emission at ultralow threshold by colloidal HgTe quantum dots. Nature Materials, 2018, 17, 35-42.	27.5	99
32	Saturation and voltage quenching of porous-silicon luminescence and the importance of the Auger effect. Physical Review B, 1995, 51, 17605-17613.	3.2	90
33	Multiexponential photoluminescence decay in indirect-gap semiconductor nanocrystals. Physical Review B, 2006, 73, .	3.2	89
34	Dirac Cones, Topological Edge States, and Nontrivial Flat Bands in Two-Dimensional Semiconductors with a Honeycomb Nanogeometry. Physical Review X, 2014, 4, .	8.9	85
35	Electron-phonon coupling and optical transitions for indirect-gap semiconductor nanocrystals. Physical Review B, 2001, 64, .	3.2	82
36	Interpretation and theory of tunneling experiments on single nanostructures. Physical Review B, 2002, 65, .	3.2	80

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37	Carrier multiplication in bulk and nanocrystalline semiconductors: Mechanism, efficiency, and interest for solar cells. Physical Review B, 2010, 81, .	3.2	80
38	Theory of excitonic exchange splitting and optical Stokes shift in silicon nanocrystallites: Application to porous silicon. Physical Review B, 1994, 50, 18258-18267.	3.2	75
39	Atomic-scale study of GaMnAs/GaAs layers. Applied Physics Letters, 2000, 77, 4001-4003.	3.3	75
40	Atomistic modeling of electron-phonon coupling and transport properties in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>n</mml:mi></mml:math>-type [110] silicon nanowires. Physical Review B, 2010, 82, .	3.2	75
41	Theoretical descriptions of porous silicon. Thin Solid Films, 1995, 255, 27-34.	1.8	72
42	Optical band gap of Si nanoclusters. Journal of Luminescence, 1998, 80, 65-73.	3.1	71
43	Optical Investigation of Quantum Confinement in PbSe Nanocrystals at Different Points in the Brillouin Zone. Small, 2008, 4, 127-133.	10.0	70
44	Dielectric function of colloidal lead chalcogenide quantum dots obtained by a Kramers-KrÃ¶nig analysis of the absorbance spectrum. Physical Review B, 2010, 81, .	3.2	66
45	Electronic structure of atomically coherent square semiconductor superlattices with dimensionality below two. Physical Review B, 2013, 88, .	3.2	66
46	Optical Transitions in Artificial Few-Electron Atoms Strongly Confined inside ZnO Nanocrystals. Physical Review Letters, 2003, 90, 097401.	7.8	65
47	Influence of electronic structure and multiexciton spectral density on multiple-exciton generation in semiconductor nanocrystals: Tight-binding calculations. Physical Review B, 2008, 77, .	3.2	64
48	Orbital and Charge-Resolved Polaron States in CdSe Dots and Rods Probed by Scanning Tunneling Spectroscopy. Physical Review Letters, 2009, 102, 196401.	7.8	64
49	Theory of the luminescence of porous silicon. Journal of Luminescence, 1993, 57, 249-256.	3.1	63
50	Electronic structure of a heterostructure of an alkylsiloxane self-assembled monolayer on silicon. Physical Review B, 1998, 58, 16491-16498.	3.2	63
51	Probing the Carrier Capture Rate of a Single Quantum Level. Science, 2008, 319, 436-438.	12.6	60
52	Tight-Binding Calculations of the Optical Response of Optimally P-Doped Si Nanocrystals: A Model for Localized Surface Plasmon Resonance. Physical Review Letters, 2013, 111, 177402.	7.8	59
53	Comment on â€œSize Dependence of Excitons in Silicon Nanocrystalsâ€• Physical Review Letters, 1996, 76, 3038-3038.	7.8	57
54	Quantum confinement energies in zinc-blende IIIâ€“V and group IV semiconductors. Applied Physics Letters, 2000, 77, 639-641.	3.3	57

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55	Tight-binding calculations of the optical properties of HgTe nanocrystals. Physical Review B, 2012, 86, .	3.2	56
56	Conduction Band Fine Structure in Colloidal HgTe Quantum Dots. ACS Nano, 2018, 12, 9397-9404.	14.6	56
57	Fast relaxation of hot carriers by impact ionization in semiconductor nanocrystals: Role of defects. Physical Review B, 2009, 79, .	3.2	54
58	Description of the trends for rare-earth impurities in semiconductors. Physical Review Letters, 1991, 67, 3006-3009.	7.8	51
59	Uncovering Forbidden Optical Transitions in PbSe Nanocrystals. Nano Letters, 2007, 7, 3827-3831.	9.1	51
60	Topological states in multi-orbital HgTe honeycomb lattices. Nature Communications, 2015, 6, 6316.	12.8	51
61	Electron Transport via Local Polarons at Interface Atoms. Physical Review Letters, 2006, 97, 206801.	7.8	50
62	Doping as a Strategy to Tune Color of 2D Colloidal Nanoplatelets. ACS Applied Materials & Interfaces, 2019, 11, 10128-10134.	8.0	48
63	Role of dangling bonds at Schottky barriers and semiconductor heterojunctions. Physical Review B, 1987, 36, 1336-1339.	3.2	45
64	Metastable State ofEL2in GaAs. Physical Review Letters, 1987, 59, 2875-2878.	7.8	44
65	Identification of the isolated arsenic antisite defect in electron-irradiated gallium arsenide and its relation to theEL2 defect. Physical Review B, 1992, 45, 1481-1484.	3.2	43
66	Nonradiative recombination on dangling bonds in silicon crystallites. Journal of Luminescence, 1993, 57, 243-247.	3.1	42
67	Electronic structure and localized states in a model amorphous silicon. Physical Review B, 1998, 57, 6933-6936.	3.2	42
68	Semiconducting Surface Reconstructions ofp-Type Si(100) Substrates at 5ÂK. Physical Review Letters, 2004, 92, 216101.	7.8	42
69	Theory of optical properties of polysilanes: Comparison with porous silicon. Physical Review B, 1993, 48, 7951-7959.	3.2	40
70	Multiple exciton generation and ultrafast exciton dynamics in HgTe colloidal quantum dots. Physical Chemistry Chemical Physics, 2013, 15, 16864.	2.8	40
71	Transport Properties of a Two-Dimensional PbSe Square Superstructure in an Electrolyte-Gated Transistor. Nano Letters, 2017, 17, 5238-5243.	9.1	40
72	New theoretical approach of transition-metal impurities in semiconductors. Physical Review B, 1989, 39, 1669-1681.	3.2	39

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73	Fully Atomistic Simulations of Phonon-Limited Mobility of Electrons and Holes in $langle hbox{001}angle$-, $langle hbox{110}angle$-, and $langle hbox{111}angle$ -Oriented Si Nanowires. IEEE Transactions on Electron Devices, 2012, 59, 1480-1487.	3.0	38
74	Electron-paramagnetic-resonance observation of gallium vacancy in electron-irradiatedp-type GaAs. Physical Review B, 1992, 45, 1645-1649.	3.2	36
75	Effect of Quantum Confinement on the Dielectric Function of PbSe. Physical Review Letters, 2004, 92, 026808.	7.8	36
76	Scanning tunneling microscopy and spectroscopy of reconstructedSi(100)surfaces. Physical Review B, 2005, 71, .	3.2	36
77	Charged impurity scattering and mobility in gated silicon nanowires. Physical Review B, 2010, 82, .	3.2	36
78	Infrared photoconduction at the diffusion length limit in HgTe nanocrystal arrays. Nature Communications, 2021, 12, 1794.	12.8	35
79	Single-particle tunneling in semiconductor quantum dots. Physical Review B, 2001, 64, .	3.2	34
80	Luminescence polarization of silicon nanocrystals. Physical Review B, 2001, 63, .	3.2	34
81	Coulomb Energy Determination of a Single Si Dangling Bond. Physical Review Letters, 2010, 105, 226404.	7.8	34
82	Broadband and Picosecond Intraband Absorption in Lead-Based Colloidal Quantum Dots. ACS Nano, 2012, 6, 6067-6074.	14.6	31
83	p Orbital Flat Band and Dirac Cone in the Electronic Honeycomb Lattice. ACS Nano, 2020, 14, 13638-13644.	14.6	31
84	Calculations of the electron-energy-loss spectra of silicon nanostructures and porous silicon. Physical Review B, 1997, 56, 15306-15313.	3.2	30
85	Theory of scanning tunneling microscopy of defects on semiconductor surfaces. Physical Review B, 2000, 61, 2138-2145.	3.2	30
86	Dimensionality-Dependent Self-Energy Corrections and Exchange-Correlation Potential in Semiconductor Nanostructures. Physical Review Letters, 2003, 90, 076803.	7.8	30
87	Screening and polaronic effects induced by a metallic gate and a surrounding oxide on donor and acceptor impurities in silicon nanowires. Journal of Applied Physics, 2008, 103, 073703.	2.5	30
88	Ab initiocalculation of the binding energy of impurities in semiconductors: Application to Si nanowires. Physical Review B, 2010, 81, .	3.2	30
89	Carrier mobility in strained Ge nanowires. Journal of Applied Physics, 2012, 112, .	2.5	30
90	Size Dependence of the Exciton Transitions in Colloidal CdTe Quantum Dots. Journal of Physical Chemistry C, 2012, 116, 23160-23167.	3.1	30

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91	Transition-Metal Impurities in Semiconductors and Heterojunction Band Lineups. Physical Review Letters, 1988, 61, 199-202.	7.8	29
92	A Phonon Scattering Bottleneck for Carrier Cooling in Lead Chalcogenide Nanocrystals. ACS Nano, 2015, 9, 778-788.	14.6	29
93	Quantum confinement in amorphous silicon layers. Applied Physics Letters, 1997, 71, 1189-1191.	3.3	28
94	Optimization of Carrier Multiplication for More Effcient Solar Cells: The Case of Sn Quantum Dots. ACS Nano, 2011, 5, 7318-7323.	14.6	28
95	Interplay of Coulomb, exchange, and spin-orbit effects in semiconductor nanocrystallites. Physical Review B, 1998, 57, 3729-3732.	3.2	27
96	Effective dielectric constant of nanostructured Si layers. Applied Physics Letters, 2006, 88, 173117.	3.3	27
97	Linewidth of resonances in scanning tunneling spectroscopy. Physical Review B, 2008, 77, .	3.2	27
98	(Multi)exciton Dynamics and Exciton Polarizability in Colloidal InAs Quantum Dots. Journal of Physical Chemistry C, 2010, 114, 6318-6324.	3.1	27
99	Theoretical characterization of the electronic properties of extended thienylenevinylene oligomers. Journal of Chemical Physics, 1999, 111, 6643-6649.	3.0	25
100	Resonant tunneling in partially disordered silicon nanostructures. Europhysics Letters, 2001, 55, 552-558.	2.0	25
101	Electronic structure and electron-paramagnetic-resonance properties of intrinsic defects in GaAs. Physical Review B, 1991, 44, 10525-10535.	3.2	24
102	Electron-phonon coupling and intervalley splitting determine the linewidth of single-electron transport through PbSe nanocrystals. Journal of Chemical Physics, 2009, 131, 224510.	3.0	24
103	Band offsets, wells, and barriers at nanoscale semiconductor heterojunctions. Physical Review B, 2011, 84, .	3.2	23
104	Ferroelectric Gating of Narrow Band-Gap Nanocrystal Arrays with Enhanced Lightâ€“Matter Coupling. ACS Photonics, 2021, 8, 259-268.	6.6	23
105	Correlating Structure and Detection Properties in HgTe Nanocrystal Films. Nano Letters, 2021, 21, 4145-4151.	9.1	23
106	From lattice Hamiltonians to tunable band structures by lithographic design. Physical Review B, 2016, 94, .	3.2	22
107	Setting Carriers Free: Healing Faulty Interfaces Promotes Delocalization and Transport in Nanocrystal Solids. ACS Nano, 2019, 13, 12774-12786.	14.6	22
108	Impurity-limited mobility and variability in gate-all-around silicon nanowires. Applied Physics Letters, 2012, 100, 153119.	3.3	20

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109	From semiconductor nanocrystals to artificial solids with dimensionality below two. Physical Chemistry Chemical Physics, 2014, 16, 25734-25740.	2.8	20
110	Defect-assisted tunneling current: A revised interpretation of scanning tunneling spectroscopy measurements. Applied Physics Letters, 2000, 76, 3142-3144.	3.3	19
111	Electronic band structure of zinc blende CdSe and rock salt PbSe semiconductors with silicene-type honeycomb geometry. 2D Materials, 2015, 2, 034008.	4.4	19
112	Universal behavior of electron <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>g</mml:mi></mml:math> -factors in semiconductor nanostructures. Physical Review B, 2017, 95, .	3.2	19
113	Engineering a Robust Flat Band in IIIâ€“V Semiconductor Heterostructures. Nano Letters, 2021, 21, 680-685.	9.1	19
114	Frequency-dependent hopping conductivity between silicon nanocrystallites: Application to porous silicon. Physical Review B, 1998, 58, 12044-12048.	3.2	17
115	Tight Binding for Complex Semiconductor Systems. Physica Status Solidi (B): Basic Research, 2001, 227, 115-149.	1.5	17
116	Efficient intraband optical transitions in Si nanocrystals. Physical Review B, 2002, 66, .	3.2	17
117	Collective excitations in charged nanocrystals and in close-packed arrays of charged nanocrystals. Physical Review B, 2005, 72, .	3.2	17
118	Loosening Quantum Confinement: Observation of Real Conductivity Caused by Hole Polarons in Semiconductor Nanocrystals Smaller than the Bohr Radius. Nano Letters, 2012, 12, 4937-4942.	9.1	16
119	Asymmetric Optical Transitions Determine the Onset of Carrier Multiplication in Lead Chalcogenide Quantum Confined and Bulk Crystals. ACS Nano, 2018, 12, 4796-4802.	14.6	16
120	Seeded Growth of HgTe Nanocrystals for Shape Control and Their Use in Narrow Infrared Electroluminescence. Chemistry of Materials, 2021, 33, 2054-2061.	6.7	16
121	Ultrafast exciton dynamics in InAs/ZnSe nanocrystal quantum dots. Physical Chemistry Chemical Physics, 2012, 14, 15166.	2.8	15
122	Bias Tunable Spectral Response of Nanocrystal Array in a Plasmonic Cavity. Nano Letters, 2021, 21, 6671-6677.	9.1	15
123	Phonon-limited carrier mobility and resistivity from carbon nanotubes to graphene. Physical Review B, 2015, 92, .	3.2	14
124	Optical properties of the main electron-irradiation-induced defects inp-type InP: Comparison with calculations for the isolated and acceptor-paired phosphorus vacancy. Physical Review B, 1990, 42, 11042-11050.	3.2	13
125	Empirical laws and their theoretical justification for the crystal-field splitting and ionization energy of transition-metal ions in semiconductors. Physical Review B, 1987, 36, 9362-9365.	3.2	12
126	Atomic configuration and electronic properties of the metastable state of theEL2 center in GaAs. Physical Review B, 1988, 38, 3966-3972.	3.2	12

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127	As antisite incorporation in epitaxial growth of GaAs. Physica B: Condensed Matter, 1999, 273-274, 725-728.	2.7	12
128	Scanning tunneling microscopy and spectroscopy of conjugated oligomers weakly bonded to Si(100) surfaces: A theoretical study. Physical Review B, 2005, 71, .	3.2	12
129	Minimum Line Width of Surface Plasmon Resonance in Doped ZnO Nanocrystals. Nano Letters, 2017, 17, 7599-7605.	9.1	12
130	Excited states ofDXinGa1â^'xAlxAs. Physical Review B, 1991, 44, 9060-9063.	3.2	11
131	Excitonic Recombination and Relaxation in CdS Quantum Dots. Physica Status Solidi (B): Basic Research, 1999, 212, 293-305.	1.5	11
132	Adsorption and electronic excitation of biphenyl onSi(100): A theoretical STM analysis. Physical Review B, 2007, 75, .	3.2	11
133	Magnetic-Phase Dependence of the Spin Carrier Mean Free Path in Graphene Nanoribbons. Physical Review Letters, 2016, 116, 236602.	7.8	11
134	Order and progress. Nature Materials, 2016, 15, 498-499.	27.5	11
135	Colloidal nanocrystals as LEGOÂ® bricks for building electronic band structure models. Physical Chemistry Chemical Physics, 2018, 20, 8177-8184.	2.8	11
136	Triangular nanoperforation and band engineering of InGaAs quantum wells: a lithographic route toward Dirac cones in IIIâ€“V semiconductors. Nanotechnology, 2019, 30, 155301.	2.6	11
137	Excitons in silicon nanostructures. Journal of Luminescence, 1993, 57, 239-242.	3.1	10
138	Single-exciton optical gain in semiconductor nanocrystals: Positive role of electron-phonon coupling. Physical Review B, 2016, 93, .	3.2	10
139	Quantum Dot Acceptors in Two-Dimensional Epitaxially Fused PbSe Quantum Dot Superlattices. ACS Nano, 2022, 16, 3081-3091.	14.6	10
140	Absolute Photoionization Cross-Sections of 3 d Ions in InP: a Comparison Between Experiment and Theory. Europhysics Letters, 1989, 9, 373-378.	2.0	9
141	Virtual charge method for electrostatic calculations in metallic tip and semiconducting sample systems. Journal of Applied Physics, 1997, 82, 5589-5596.	2.5	9
142	Tight Binding Description of the Electronic Response of a Molecular Device to an Applied Voltage. Journal of Physical Chemistry B, 2001, 105, 6321-6323.	2.6	9
143	Evolution of the density of states on going from a two- to a zero-dimensional semiconductor. Europhysics Letters, 2004, 65, 809-815.	2.0	9
144	Electronic structure of Si nanocrystals codoped with boron and phosphorus. Physical Review B, 2018, 98, .	3.2	9

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145	Van Hove Singularities and Trap States in Two-Dimensional CdSe Nanoplatelets. Nano Letters, 2021, 21, 1702-1708.	9.1	9
146	Vacancy-model-based electronic structure of thePtâ˜impurity in silicon. Physical Review B, 1991, 44, 10925-10928.	3.2	8
147	Nature of impurity states in doped amorphous silicon. Physical Review B, 2000, 61, 10206-10210.	3.2	8
148	Adsorption Behavior of Conjugated {C}3-Oligomers on Si(100) and Highly Oriented Pyrolytic Graphite Surfaces. Langmuir, 2003, 19, 3350-3356.	3.5	8
149	Confinement effects and tunnelling through quantum dots. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2003, 361, 259-273.	3.4	8
150	Ab initio study on the effect of structural relaxation on the electronic and optical properties of P-doped Si nanocrystals. Journal of Applied Physics, 2014, 116, .	2.5	8
151	Control of the ionization state of three single donor atoms in silicon. Physical Review B, 2014, 89, .	3.2	8
152	Kekule versus hidden superconducting order in graphene-like systems: Competition and coexistence. Physical Review B, 2015, 92, .	3.2	8
153	Crystal Facet Engineering in Ga-Doped ZnO Nanowires for Mid-Infrared Plasmonics. Crystal Growth and Design, 2018, 18, 4287-4295.	3.0	8
154	The complex optical index of PbS nanocrystal thin films and their use for short wave infrared sensor design. Nanoscale, 2022, 14, 2711-2721.	5.6	8
155	Unusual quantum confinement effects in IVâ€“VI materials. Materials Science and Engineering C, 2005, 25, 687-690.	7.3	7
156	Hole mobility in Ge/Si core/shell nanowires: What could be the optimum?. Applied Physics Letters, 2014, 105, .	3.3	7
157	Trap-Free Heterostructure of PbS Nanoplatelets on InP(001) by Chemical Epitaxy. ACS Nano, 2019, 13, 1961-1967.	14.6	7
158	Electric-field dependence of electron emission from the deep-level oxygen defect in GaP. Physical Review B, 1992, 45, 13331-13335.	3.2	6
159	Influence of barrier height on scanning tunneling spectroscopy experimental and theoretical aspects. Applied Physics Letters, 1998, 72, 569-571.	3.3	6
160	Electronic properties of organic monolayers and molecular devices. Pramana - Journal of Physics, 2006, 67, 17-32.	1.8	6
161	Above-barrier surface electron resonances induced by a molecular network. Physical Review B, 2010, 81, .	3.2	6
162	Theoretical investigation of the phonon-limited carrier mobility in (001) Si films. Journal of Applied Physics, 2016, 120, 174301.	2.5	6

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163	Quantum confinement effects in Pb nanocrystals grown on InAs. Physical Review B, 2018, 97, .	3.2	6
164	Vanmaekelberghet al.Reply. Physical Review Letters, 2003, 91, .	7.8	5
165	Nanoscale Carrier Multiplication Mapping in a Si Diode. Nano Letters, 2014, 14, 5636-5640.	9.1	5
166	Anderson localization induced by gauge-invariant bond-sign disorder in square PbSe nanocrystal lattices. Physical Review B, 2018, 98, .	3.2	5
167	Influence of doping level and surface states in tunneling spectroscopy of an <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">I</mml:mi><mml:msub><mml:mi mathvariant="normal">n</mml:mi><mml:mrow><mml:mn>0.53</mml:mn></mml:mrow></mml:msub><mml:mi mathvariant="normal">G</mml:mi><mml:msub><mml:mi mathvariant="normal">a</mml:mi><mml:mrow><mml:mn>0.47</mml:mn></mml:mrow></mml:msub><mml:mi>As</mml:mi></mml:mrow>	2.4	5
168	Effect of alkyl substituents on the adsorption of thienylenevinylene oligomers on the Si(100) surface. Surface Science, 2001, 473, 1-7.	1.9	4
169	Prediction of robust two-dimensional topological insulators based on Ge/Si nanotechnology. Physical Review B, 2014, 90, .	3.2	4
170	Electronic structure and electron mobility in Si1â€“â€ˆxGex nanowires. Applied Physics Letters, 2017, 110, .	3.3	4
171	Modeled optical properties of SiGe and Si layers compared to spectroscopic ellipsometry measurements. Solid-State Electronics, 2017, 129, 93-96.	1.4	4
172	Topological protection of electronic states against disorder probed by their magnetic moment. Physical Review B, 2017, 95, .	3.2	4
173	Room-Temperature Electron Transport in Self-Assembled Sheets of PbSe Nanocrystals with a Honeycomb Nanogeometry. Journal of Physical Chemistry C, 2019, 123, 14058-14066.	3.1	4
174	Electronic properties of atomically coherent square PbSe nanocrystal superlattice resolved by Scanning Tunneling Spectroscopy. Nanotechnology, 2021, 32, 325706.	2.6	4
175	Electronic structure of samarium atoms adsorbed on the GaAs(110) surface. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1992, 10, 1928.	1.6	3
176	Quantum confinement in the Si-III (BC-8) phase of porous silicon. Applied Physics Letters, 1997, 70, 2437-2439.	3.3	3
177	Screening and Surface States in Molecular Monolayers Adsorbed on Silicon. Journal of Physical Chemistry B, 2006, 110, 11496-11503.	2.6	3
178	Complexity of the hot carrier relaxation in Si nanowires compared to bulk. Physical Review B, 2017, 95, .	3.2	3
179	Intrinsic transport properties of nanoporous graphene highly suitable for complementary field-effect transistors. 2D Materials, 2019, 6, 035026.	4.4	3
180	Luminescence of silicon crystallites. European Physical Journal Special Topics, 1993, 03, 359-362.	0.2	3

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181	Universality of optical absorptance quantization in two-dimensional group-IV, III-V, II-VI, and IV-VI semiconductors. Physical Review B, 2022, 105, .	3.2	3
182	STM measurements of barrier height on Si(111)-7Ã—7 and GaAs(110) cleaved surfaces using I(z), z(V) and I(z(V),V) techniques. Applied Physics A: Materials Science and Processing, 1998, 66, S977-S980.	2.3	2
183	Preparation and study of 2-D semiconductors with Dirac type bands due to the honeycomb nanogeometry. , 2014, , .		2
184	A Phonon Scattering Bottleneck for Carrier Cooling in Lead-Chalcogenide Nanocrystals. Materials Research Society Symposia Proceedings, 2015, 1787, 1-5.	0.1	2
185	Drift velocity versus electric field in âŸ¨110âŸ© Si nanowires: Strong confinement effects. Applied Physics Letters, 2015, 107, .	3.3	2
186	Observation of an additional electronic level of theEL2 defect. Physical Review B, 1991, 44, 1372-1374.	3.2	1
187	Electronic structure and optical properties of silicon crystallites. Applied Surface Science, 1993, 65-66, 423-425.	6.1	1
188	Response Concerning â€œOn the Interpretation of Colloidal Quantum Dot Absorption Spectraâ€• Small, 2008, 4, 1869-1870.	10.0	1
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