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	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
2	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
3	Quantum Dot Acceptors in Two-Dimensional Epitaxially Fused PbSe Quantum Dot Superlattices. ACS Nano, 2022, 16, 3081-3091.	14.6	10
4	Engineering a Robust Flat Band in IIIâ€“V Semiconductor Heterostructures. Nano Letters, 2021, 21, 680-685.	9.1	19
5	Ferroelectric Gating of Narrow Band-Gap Nanocrystal Arrays with Enhanced Lightâ€“Matter Coupling. ACS Photonics, 2021, 8, 259-268.	6.6	23
6	Van Hove Singularities and Trap States in Two-Dimensional CdSe Nanoplatelets. Nano Letters, 2021, 21, 1702-1708.	9.1	9
7	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
8	Infrared photoconduction at the diffusion length limit in HgTe nanocrystal arrays. Nature Communications, 2021, 12, 1794.	12.8	35
9	Electronic properties of atomically coherent square PbSe nanocrystal superlattice resolved by Scanning Tunneling Spectroscopy. Nanotechnology, 2021, 32, 325706.	2.6	4
10	Correlating Structure and Detection Properties in HgTe Nanocrystal Films. Nano Letters, 2021, 21, 4145-4151.	9.1	23
11	Bias Tunable Spectral Response of Nanocrystal Array in a Plasmonic Cavity. Nano Letters, 2021, 21, 6671-6677.	9.1	15
12	The Fine-Structure Constant as a Ruler for the Band-Edge Light Absorption Strength of Bulk and Quantum-Confined Semiconductors. Nano Letters, 2021, 21, 9426-9432.	9.1	1
13	p Orbital Flat Band and Dirac Cone in the Electronic Honeycomb Lattice. ACS Nano, 2020, 14, 13638-13644.	14.6	31
14	Setting Carriers Free: Healing Faulty Interfaces Promotes Delocalization and Transport in Nanocrystal Solids. ACS Nano, 2019, 13, 12774-12786.	14.6	22
15	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
16	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
17	Doped Colloidal InAs Nanocrystals in the Single Ionized Dopant Limit. Journal of Physical Chemistry C, 2019, 123, 14803-14812.	3.1	1
18	Intrinsic transport properties of nanoporous graphene highly suitable for complementary field-effect transistors. 2D Materials, 2019, 6, 035026.	4.4	3

#	Article	IF	Citations
19	Trap-Free Heterostructure of PbS Nanoplatelets on InP(001) by Chemical Epitaxy. ACS Nano, 2019, 13, 1961-1967.	14.6	7
20	Doping as a Strategy to Tune Color of 2D Colloidal Nanoplatelets. ACS Applied Materials & Interfaces, 2019, 11, 10128-10134.	8.0	48
21	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:mr	2.4	5
22	Colloidal nanocrystals as LEGOÂ® bricks for building electronic band structure models. Physical Chemistry Chemical Physics, 2018, 20, 8177-8184.	2.8	11
23	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
24	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
25	Anderson localization induced by gauge-invariant bond-sign disorder in square PbSe nanocrystal lattices. Physical Review B, 2018, 98, .	3.2	5
26	Quantum confinement effects in Pb nanocrystals grown on InAs. Physical Review B, 2018, 97, .	3.2	6
27	Electronic structure of Si nanocrystals codoped with boron and phosphorus. Physical Review B, 2018, 98, .	3.2	9
28	Conduction Band Fine Structure in Colloidal HgTe Quantum Dots. ACS Nano, 2018, 12, 9397-9404.	14.6	56
29	Crystal Facet Engineering in Ga-Doped ZnO Nanowires for Mid-Infrared Plasmonics. Crystal Growth and Design, 2018, 18, 4287-4295.	3.0	8
30	Electronic structure and electron mobility in Si1â€“â€ˆxGex nanowires. Applied Physics Letters, 2017, 110, .	3.3	4
31	Intrinsic strain effects on Ge/Si core/shell nanowires: Insights from atomistic simulations. Superlattices and Microstructures, 2017, 107, 83-90.	3.1	1
32	Modeled optical properties of SiGe and Si layers compared to spectroscopic ellipsometry measurements. Solid-State Electronics, 2017, 129, 93-96.	1.4	4
33	Topological protection of electronic states against disorder probed by their magnetic moment. Physical Review B, 2017, 95, .	3.2	4
34	Robustness of states at the interface between topological insulators of opposite spin Chern number. Europhysics Letters, 2017, 118, 67003.	2.0	1
35	Complexity of the hot carrier relaxation in Si nanowires compared to bulk. Physical Review B, 2017, 95, .	3.2	3
36	Transport Properties of a Two-Dimensional PbSe Square Superstructure in an Electrolyte-Gated Transistor. Nano Letters, 2017, 17, 5238-5243.	9.1	40

#	Article	IF	Citations
37	Minimum Line Width of Surface Plasmon Resonance in Doped ZnO Nanocrystals. Nano Letters, 2017, 17, 7599-7605.	9.1	12
38	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
39	Manipulating spin polarization and carrier mobility in zigzag graphene ribbons using an electric field. , 2016, , .		1
40	Theoretical investigation of the phonon-limited carrier mobility in (001) Si films. Journal of Applied Physics, 2016, 120, 174301.	2.5	6
41	From lattice Hamiltonians to tunable band structures by lithographic design. Physical Review B, 2016, 94, .	3.2	22
42	Single-exciton optical gain in semiconductor nanocrystals: Positive role of electron-phonon coupling. Physical Review B, 2016, 93, .	3.2	10
43	Magnetic-Phase Dependence of the Spin Carrier Mean Free Path in Graphene Nanoribbons. Physical Review Letters, 2016, 116, 236602.	7.8	11
44	Order and progress. Nature Materials, 2016, 15, 498-499.	27.5	11
45	A Phonon Scattering Bottleneck for Carrier Cooling in Lead-Chalcogenide Nanocrystals. Materials Research Society Symposia Proceedings, 2015, 1787, 1-5.	0.1	2
46	Kekule versus hidden superconducting order in graphene-like systems: Competition and coexistence. Physical Review B, 2015, 92, .	3.2	8
47	Phonon-limited carrier mobility and resistivity from carbon nanotubes to graphene. Physical Review B, 2015, 92, .	3.2	14
48	Topological states in multi-orbital HgTe honeycomb lattices. Nature Communications, 2015, 6, 6316.	12.8	51
49	Comparative Study on the Localized Surface Plasmon Resonance of Boron- and Phosphorus-Doped Silicon Nanocrystals. ACS Nano, 2015, 9, 378-386.	14.6	133
50	A Phonon Scattering Bottleneck for Carrier Cooling in Lead Chalcogenide Nanocrystals. ACS Nano, 2015, 9, 778-788.	14.6	29
51	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
52	High charge mobility in two-dimensional percolative networks of PbSe quantum dots connected by atomic bonds. Nature Communications, 2015, 6, 8195.	12.8	125
53	(Invited) Topological States in Multi-Orbital Honeycomb Lattices of HgTe (CdTe) Quantum Dots. ECS Transactions, 2015, 69, 81-88.	0.5	1
54	Drift velocity versus electric field in âŸ¨110âŸ© Si nanowires: Strong confinement effects. Applied Physics Letters, 2015, 107, .	3.3	2

#	Article	IF	Citations
55	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
56	Hole mobility in Ge/Si core/shell nanowires: What could be the optimum?. Applied Physics Letters, 2014, 105, .	3.3	7
57	Prediction of robust two-dimensional topological insulators based on Ge/Si nanotechnology. Physical Review B, 2014, 90, .	3.2	4
58	Control of the ionization state of three single donor atoms in silicon. Physical Review B, 2014, 89, .	3.2	8
59	Scanning Probe Microscopy and Spectroscopy. , 2014, , 223-255.		0
60	Preparation and study of 2-D semiconductors with Dirac type bands due to the honeycomb nanogeometry. , 2014, , .		2
61	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
62	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
63	Nanoscale Carrier Multiplication Mapping in a Si Diode. Nano Letters, 2014, 14, 5636-5640.	9.1	5
64	From semiconductor nanocrystals to artificial solids with dimensionality below two. Physical Chemistry Chemical Physics, 2014, 16, 25734-25740.	2.8	20
65	Multiple exciton generation and ultrafast exciton dynamics in HgTe colloidal quantum dots. Physical Chemistry Chemical Physics, 2013, 15, 16864.	2.8	40
66	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
67	Electronic structure and transport properties of Si nanotubes. Journal of Applied Physics, 2013, 114, .	2.5	1
68	Electronic structure of atomically coherent square semiconductor superlattices with dimensionality below two. Physical Review B, 2013, 88, .	3.2	66
69	Impurity-limited mobility and variability in gate-all-around silicon nanowires. Applied Physics Letters, 2012, 100, 153119.	3.3	20
70	Carrier mobility in strained Ge nanowires. Journal of Applied Physics, 2012, 112, .	2.5	30
71	Effects of Strain on the Carrier Mobility in Silicon Nanowires. Nano Letters, 2012, 12, 3545-3550.	9.1	137
72	Transport properties of strained silicon nanowires. , 2012, , .		0

#	Article	IF	Citations
73	Tight-binding calculations of the optical properties of HgTe nanocrystals. Physical Review B, 2012, 86, .	3.2	56
74	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
75	Ultrafast exciton dynamics in InAs/ZnSe nanocrystal quantum dots. Physical Chemistry Chemical Physics, 2012, 14, 15166.	2.8	15
76	Size Dependence of the Exciton Transitions in Colloidal CdTe Quantum Dots. Journal of Physical Chemistry C, 2012, 116, 23160-23167.	3.1	30
77	Broadband and Picosecond Intraband Absorption in Lead-Based Colloidal Quantum Dots. ACS Nano, 2012, 6, 6067-6074.	14.6	31
78	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
79	Optimization of Carrier Multiplication for More Effcient Solar Cells: The Case of Sn Quantum Dots. ACS Nano, 2011, 5, 7318-7323.	14.6	28
80	Band offsets, wells, and barriers at nanoscale semiconductor heterojunctions. Physical Review B, 2011, 84, .	3.2	23
81	Optimization of carrier multiplication in quantum dots for more efficient solar cells: Theoretical aspects. , 2011, , .		0
82	Charged impurity scattering and mobility in gated silicon nanowires. Physical Review B, 2010, 82, .	3.2	36
83	Ab initiocalculation of the binding energy of impurities in semiconductors: Application to Si nanowires. Physical Review B, 2010, 81, .	3.2	30
84	Coulomb Energy Determination of a Single Si Dangling Bond. Physical Review Letters, 2010, 105, 226404.	7.8	34
85	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
86	Carrier multiplication in bulk and nanocrystalline semiconductors: Mechanism, efficiency, and interest for solar cells. Physical Review B, 2010, 81, .	3.2	80
87	(Multi)exciton Dynamics and Exciton Polarizability in Colloidal InAs Quantum Dots. Journal of Physical Chemistry C, 2010, 114, 6318-6324.	3.1	27
88	Above-barrier surface electron resonances induced by a molecular network. Physical Review B, 2010, 81, .	3.2	6
89	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
90	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

#	Article	IF	Citations
91	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
92	Assessment of carrier-multiplication efficiency in bulk PbSe and PbS. Nature Physics, 2009, 5, 811-814.	16.7	245
93	Size-Dependent Optical Properties of Colloidal PbS Quantum Dots. ACS Nano, 2009, 3, 3023-3030.	14.6	1,024
94	Fast relaxation of hot carriers by impact ionization in semiconductor nanocrystals: Role of defects. Physical Review B, 2009, 79, .	3.2	54
95	Optical Investigation of Quantum Confinement in PbSe Nanocrystals at Different Points in the Brillouin Zone. Small, 2008, 4, 127-133.	10.0	70
96	Response Concerning â€œOn the Interpretation of Colloidal Quantum Dot Absorption Spectraâ€• Small, 2008, 4, 1869-1870.	10.0	1
97	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
98	Linewidth of resonances in scanning tunneling spectroscopy. Physical Review B, 2008, 77, .	3.2	27
99	Probing the Carrier Capture Rate of a Single Quantum Level. Science, 2008, 319, 436-438.	12.6	60
100	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
101	Fundamental studies in nanosciences at the Institute of Electronics, Microelectronics, and Nanotechnology (IEMN). International Journal of Nanotechnology, 2008, 5, 631.	0.2	0
102	Adsorption and electronic excitation of biphenyl onSi(100): A theoretical STM analysis. Physical Review B, 2007, 75, .	3.2	11
103	Ionization energy of donor and acceptor impurities in semiconductor nanowires: Importance of dielectric confinement. Physical Review B, 2007, 75, .	3.2	246
104	Energy transfer between semiconductor nanocrystals: Validity of FÃ¶rsterâ€™s theory. Physical Review B, 2007, 75, .	3.2	119
105	Uncovering Forbidden Optical Transitions in PbSe Nanocrystals. Nano Letters, 2007, 7, 3827-3831.	9.1	51
106	Effective dielectric constant of nanostructured Si layers. Applied Physics Letters, 2006, 88, 173117.	3.3	27
107	Role of impact ionization in multiple exciton generation in PbSe nanocrystals. Physical Review B, 2006, 73, .	3.2	124
108	Multiexponential photoluminescence decay in indirect-gap semiconductor nanocrystals. Physical Review B, 2006, 73, .	3.2	89

#	Article	IF	Citations
109	Electronic structure of semiconductor nanowires. Physical Review B, 2006, 73, .	3.2	201
110	Screening and Surface States in Molecular Monolayers Adsorbed on Silicon. Journal of Physical Chemistry B, 2006, 110, 11496-11503.	2.6	3
111	Electronic properties of organic monolayers and molecular devices. Pramana - Journal of Physics, 2006, 67, 17-32.	1.8	6
112	Electron Transport via Local Polarons at Interface Atoms. Physical Review Letters, 2006, 97, 206801.	7.8	50
113	Unusual quantum confinement effects in IVâ€“VI materials. Materials Science and Engineering C, 2005, 25, 687-690.	7.3	7
114	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
115	Scanning tunneling microscopy and spectroscopy of reconstructedSi(100)surfaces. Physical Review B, 2005, 71, .	3.2	36
116	Frequency-Dependent Spontaneous Emission Rate from CdSe and CdTe Nanocrystals: Influence of Dark States. Physical Review Letters, 2005, 95, 236804.	7.8	174
117	Collective excitations in charged nanocrystals and in close-packed arrays of charged nanocrystals. Physical Review B, 2005, 72, .	3.2	17
118	Semiconducting Surface Reconstructions ofp-Type Si(100) Substrates at 5ÂK. Physical Review Letters, 2004, 92, 216101.	7.8	42
119	Nanostructures. Nanoscience and Technology, 2004, , .	1.5	229
120	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
121	Confinement effects in PbSe quantum wells and nanocrystals. Physical Review B, 2004, 70, .	3.2	246
122	Effect of Quantum Confinement on the Dielectric Function of PbSe. Physical Review Letters, 2004, 92, 026808.	7.8	36
123	Molecular Rectifying Diodes from Self-Assembly on Silicon. Nano Letters, 2003, 3, 741-746.	9.1	157
124	Adsorption Behavior of Conjugated {C}3-Oligomers on Si(100) and Highly Oriented Pyrolytic Graphite Surfaces. Langmuir, 2003, 19, 3350-3356.	3.5	8
125	Concept of dielectric constant for nanosized systems. Physical Review B, 2003, 68, .	3.2	158
126	Self-consistent calculations of the optical properties of GaN quantum dots. Physical Review B, 2003, 68, .	3.2	99

#	Article	IF	Citations
127	Optical Transitions in Artificial Few-Electron Atoms Strongly Confined inside ZnO Nanocrystals. Physical Review Letters, 2003, 90, 097401.	7.8	65
128	Dimensionality-Dependent Self-Energy Corrections and Exchange-Correlation Potential in Semiconductor Nanostructures. Physical Review Letters, 2003, 90, 076803.	7.8	30
129	Vanmaekelberghet al.Reply. Physical Review Letters, 2003, 91, .	7.8	5
130	Confinement effects and tunnelling through quantum dots. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2003, 361, 259-273.	3.4	8
131	Efficient intraband optical transitions in Si nanocrystals. Physical Review B, 2002, 66, .	3.2	17
132	Interpretation and theory of tunneling experiments on single nanostructures. Physical Review B, 2002, 65, .	3.2	80
133	Electron-phonon coupling and optical transitions for indirect-gap semiconductor nanocrystals. Physical Review B, 2001, 64, .	3.2	82
134	Effect of alkyl substituents on the adsorption of thienylenevinylene oligomers on the Si(100) surface. Surface Science, 2001, 473, 1-7.	1.9	4
135	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
136	Tight Binding for Complex Semiconductor Systems. Physica Status Solidi (B): Basic Research, 2001, 227, 115-149.	1.5	17
137	Resonant tunneling in partially disordered silicon nanostructures. Europhysics Letters, 2001, 55, 552-558.	2.0	25
138	Single-particle tunneling in semiconductor quantum dots. Physical Review B, 2001, 64, .	3.2	34
139	Theory of electrical rectification in a molecular monolayer. Physical Review B, 2001, 64, .	3.2	165
140	Luminescence polarization of silicon nanocrystals. Physical Review B, 2001, 63, .	3.2	34
141	Nature of impurity states in doped amorphous silicon. Physical Review B, 2000, 61, 10206-10210.	3.2	8
142	Atomic-scale study of GaMnAs/GaAs layers. Applied Physics Letters, 2000, 77, 4001-4003.	3.3	75
143	Theory of scanning tunneling microscopy of defects on semiconductor surfaces. Physical Review B, 2000, 61, 2138-2145.	3.2	30
144	Quantum confinement in germanium nanocrystals. Applied Physics Letters, 2000, 77, 1182-1184.	3.3	296

#	Article	IF	Citations
145	Defect-assisted tunneling current: A revised interpretation of scanning tunneling spectroscopy measurements. Applied Physics Letters, 2000, 76, 3142-3144.	3.3	19
146	Method for tight-binding parametrization: Application to silicon nanostructures. Physical Review B, 2000, 62, 5109-5116.	3.2	194
147	Excitonic and Quasiparticle Gaps in Si Nanocrystals. Physical Review Letters, 2000, 84, 2457-2460.	7.8	162
148	Quantum confinement energies in zinc-blende IIIâ€“V and group IV semiconductors. Applied Physics Letters, 2000, 77, 639-641.	3.3	57
149	Theoretical characterization of the electronic properties of extended thienylenevinylene oligomers. Journal of Chemical Physics, 1999, 111, 6643-6649.	3.0	25
150	As antisite incorporation in epitaxial growth of GaAs. Physica B: Condensed Matter, 1999, 273-274, 725-728.	2.7	12
151	Electronic States and Luminescence in Porous Silicon Quantum Dots: The Role of Oxygen. Physical Review Letters, 1999, 82, 197-200.	7.8	1,865
152	Excitonic Recombination and Relaxation in CdS Quantum Dots. Physica Status Solidi (B): Basic Research, 1999, 212, 293-305.	1.5	11
153	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
154	Optical band gap of Si nanoclusters. Journal of Luminescence, 1998, 80, 65-73.	3.1	71
155	Frequency-dependent hopping conductivity between silicon nanocrystallites: Application to porous silicon. Physical Review B, 1998, 58, 12044-12048.	3.2	17
156	Electronic structure and localized states in a model amorphous silicon. Physical Review B, 1998, 57, 6933-6936.	3.2	42
157	Interplay of Coulomb, exchange, and spin-orbit effects in semiconductor nanocrystallites. Physical Review B, 1998, 57, 3729-3732.	3.2	27
158	Influence of barrier height on scanning tunneling spectroscopy experimental and theoretical aspects. Applied Physics Letters, 1998, 72, 569-571.	3.3	6
159	Electronic structure of a heterostructure of an alkylsiloxane self-assembled monolayer on silicon. Physical Review B, 1998, 58, 16491-16498.	3.2	63
160	Electronic Structure of Amorphous Silicon Nanoclusters. Physical Review Letters, 1997, 78, 3161-3164.	7.8	191
161	Quantum confinement in amorphous silicon layers. Applied Physics Letters, 1997, 71, 1189-1191.	3.3	28
162	Calculations of the electron-energy-loss spectra of silicon nanostructures and porous silicon. Physical Review B, 1997, 56, 15306-15313.	3.2	30

#	Article	IF	Citations
163	Quantum confinement in the Si-III (BC-8) phase of porous silicon. Applied Physics Letters, 1997, 70, 2437-2439.	3.3	3
164	Virtual charge method for electrostatic calculations in metallic tip and semiconducting sample systems. Journal of Applied Physics, 1997, 82, 5589-5596.	2.5	9
165	Nature of Luminescent Surface States of Semiconductor Nanocrystallites. Physical Review Letters, 1996, 76, 2961-2964.	7.8	317
166	Theory of radiative and nonradiative transitions for semiconductor nanocrystals. Journal of Luminescence, 1996, 70, 170-184.	3.1	134
167	Comment on â€œSize Dependence of Excitons in Silicon Nanocrystalsâ€• Physical Review Letters, 1996, 76, 3038-3038.	7.8	57
168	Theoretical descriptions of porous silicon. Thin Solid Films, 1995, 255, 27-34.	1.8	72
169	Auger and Coulomb Charging Effects in Semiconductor Nanocrystallites. Physical Review Letters, 1995, 75, 2228-2231.	7.8	119
170	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
171	Screening in Semiconductor Nanocrystallites and Its Consequences for Porous Silicon. Physical Review Letters, 1995, 74, 3415-3418.	7.8	221
172	Hydrogenic impurity levels, dielectric constant, and Coulomb charging effects in silicon crystallites. Physical Review B, 1995, 52, 11982-11988.	3.2	123
173	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
174	Electronic structure and optical properties of silicon crystallites. Applied Surface Science, 1993, 65-66, 423-425.	6.1	1
175	Excitons in silicon nanostructures. Journal of Luminescence, 1993, 57, 239-242.	3.1	10
176	Nonradiative recombination on dangling bonds in silicon crystallites. Journal of Luminescence, 1993, 57, 243-247.	3.1	42
177	Theory of the luminescence of porous silicon. Journal of Luminescence, 1993, 57, 249-256.	3.1	63
178	Theoretical aspects of the luminescence of porous silicon. Physical Review B, 1993, 48, 11024-11036.	3.2	921
179	Theory of optical properties of polysilanes: Comparison with porous silicon. Physical Review B, 1993, 48, 7951-7959.	3.2	40
180	Luminescence of silicon crystallites. European Physical Journal Special Topics, 1993, 03, 359-362.	0.2	3

#	Article	IF	Citations
181	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
182	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
183	Electron-paramagnetic-resonance observation of gallium vacancy in electron-irradiatedp-type GaAs. Physical Review B, 1992, 45, 1645-1649.	3.2	36
184	Electric-field dependence of electron emission from the deep-level oxygen defect in GaP. Physical Review B, 1992, 45, 13331-13335.	3.2	6
185	Electronic structure and optical properties of silicon crystallites: Application to porous silicon. Applied Physics Letters, 1992, 61, 1948-1950.	3.3	462
186	Observation of an additional electronic level of theEL2 defect. Physical Review B, 1991, 44, 1372-1374.	3.2	1
187	Electronic structure and electron-paramagnetic-resonance properties of intrinsic defects in GaAs. Physical Review B, 1991, 44, 10525-10535.	3.2	24
188	Vacancy-model-based electronic structure of thePtâ˜'impurity in silicon. Physical Review B, 1991, 44, 10925-10928.	3.2	8
189	Excited states ofDXinGa1â˜'xAlxAs. Physical Review B, 1991, 44, 9060-9063.	3.2	11
190	Description of the trends for rare-earth impurities in semiconductors. Physical Review Letters, 1991, 67, 3006-3009.	7.8	51
191	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
192	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
193	New theoretical approach of transition-metal impurities in semiconductors. Physical Review B, 1989, 39, 1669-1681.	3.2	39
194	Theory of Transition Metal Impurities in Semiconductors. Physica Scripta, 1989, T25, 128-133.	2.5	1
195	Transition-Metal Impurities in Semiconductors and Heterojunction Band Lineups. Physical Review Letters, 1988, 61, 199-202.	7.8	29
196	Atomic configuration and electronic properties of the metastable state of theEL2 center in GaAs. Physical Review B, 1988, 38, 3966-3972.	3.2	12
197	Transition-metal impurities in semiconductors and heterojunction band lineups. Physical Review B, 1988, 38, 7723-7739.	3.2	186
198	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

#	Article	IF	Citations
199	Role of dangling bonds at Schottky barriers and semiconductor heterojunctions. Physical Review B, 1987, 36, 1336-1339.	3.2	45
200	Metastable State ofEL2in GaAs. Physical Review Letters, 1987, 59, 2875-2878.	7.8	44