

Cambridge University Press

978-1-558-99674-8 - Quantum Confined Semiconductor Nanostructures

Victor I. Klimov, Jillian M. Buriak, Danial D.M. Wayner, Francesco Priolo,

Bruce White and Leonid Tsybeskov

Index

[More information](#)

AUTHOR INDEX

- Abstreiter, G., 45, 309
 Adu, C.K.W., 627
 Aers, Geoff C., 53
 Agarwal, S.C., 535
 Aizpurua, Javier, 5
 Alchalabi, Karim, 37
 Anderson, Wayne A., 469, 655
 Araki, Hiroshi, 443
 Archer, Marie, 549
 Armelao, Lidia, 715
 Asami, H., 227
 Atwater, Harry A., 283
 Auciello, Orlando, 555
 Avalos, J., 351
 Avella, M., 511
 Awano, M., 357

 Bajutova, O.R., 141
 Bakarov, A.K., 141
 Baker, Sarah E., 567
 Bakueva, Ludmila, 175
 Balakrishnan, G., 19
 Baldwin, Kirk, 589
 Ballesteros, C., 511
 Banerjee, Sanjay K., 643
 Banerjee, Souri, 783
 Banin, Uri, 217
 Bao, Zhenan, 589
 Bapat, Ameya, 301
 Barnard, John A., 621
 Baron, T., 295
 Barreca, Davide, 715
 Barsotti Jr., R.J., 627
 Bashir, Rashid, 745
 Baylor, L.R., 733
 Belkada, Rachid, 709
 Benyattou, T., 77
 Bertapelle, Manuel, 715
 Bichler, M., 45
 Birudavolu, S., 19
 Black, M.R., 635
 Blagnov, P.A., 59
 Bo, Xiang-Zheng, 193
 Bonevich, John E., 179
 Bottaro, Gregorio, 715
 Bougeard, D., 309

 Brault, J., 77
 Brémond, G., 77, 295
 Brunner, K., 309
 Bryant, Garnett W., 5
 Buriak, Jillian M., 341, 561, 575
 Butler, James E., 555

 Cai, Wei, 555
 Campbell, Stephen A., 301, 721
 Carlisle, John A., 449, 555
 Carrier, P., 243
 Carter, C. Barry, 301
 Cemansky, M., 115
 Cheah, K.W., 685
 Chen, C.Y., 667
 Chen, H., 407
 Chen, Jiun-Nan, 727
 Chen, Kunji, 147, 419, 425
 Chen, W.D., 667
 Cheng, Bin, 413
 Cheng, Ju-Yin, 365
 Cheung, W.Y., 697
 Chiang, Yet Ming, 395
 Choi, Hee Cheul, 341, 575
 Chou, Shin G., 395
 Christophersen, Marc, 549
 Chrzan, D.C., 769
 Chung, Bing-Xian, 727
 Chung, Sung Yoon, 395
 Cirelli, Raymond, 589
 Cronin, Stephen B., 383

 Dai, M., 425
 Dalacu, Dan, 53
 Damilano, B., 13
 Davis, Benjamin L., 25
 Dawson, L.R., 19
 Dey, S., 535
 Dharma-wardana, M.W.C., 243
 Diao, Hongwei, 667, 679
 Dickey, Elizabeth C., 615
 Di Stefano, G., 761, 819
 Dobrowolska, M., 71
 Donegan, J.F., 157
 Doremus, Robert H., 163
 Dovidenko, K., 185

Cambridge University Press

978-1-558-99674-8 - Quantum Confined Semiconductor Nanostructures

Victor I. Klimov, Jillian M. Buriak, Danial D.M. Wayner, Francesco Priolo,

Bruce White and Leonid Tsybeskov

Index

[More information](#)

- Dresselhaus, Gene, 523, 673
 Dresselhaus, Mildred S., 233, 383,
 395, 523, 635, 673
 Ducommun, Y., 45
- Eichhorn, F., 271
 Eklund, P.C., 627
 Ellis, E.D., 733
 Emel'yanov, V.I., 755
 Ertekin, E., 769
 Eychmüller, A., 157
- Fallica, P.G., 761, 819
 Fauchet, Philippe M., 253, 407, 431,
 529, 549, 661, 789
 Feng, Tao, 283
 Filin, Aleksey, 163
 Filonovich, S.A., 157
 Finley, J.J., 45
 Fischer, J.E., 627
 Flores, Marjorie, 351
 Fonseca, L.F., 351, 437, 517, 541
 Fowlkes, J.D., 607
 Franzò, G., 761, 819
 Fronc, K., 71
 Fu, Degang, 147
 Fujishiro, Yoshinobu, 357
 Furdyna, J., 71
- Gao, Y., 697
 Gaponik, N.P., 157
 Garcia, J.M., 95
 Gelloz, Bernard, 581, 801
 Gendry, M., 77
 Gerardot, B.D., 95
 Gerbi, Jennifer E., 555
 Gibson, J. Murray, 365
 Gil, Bernard, 153, 461
 Goldberg, B.B., 395
 Gomes, M.J.M., 157
 Govorov, A.O., 95, 107
 Graca, Steve, 649
 Grandjean, N., 13
 Greaney, P.A., 769
 Griffiths, C. Owen, 259
 Grom, G.F., 813
- Grozea, D.H., 243
 Gruen, Dieter M., 449, 555
 Grüneis, Alexander, 523, 673
 Gu, Ning, 147
 Guan, Yingfeng, 733
 Gui, Lichuan, 745
 Guillot, G., 77
 Gurioli, M., 87
- Hagelstein, P.L., 635
 Haisler, V.A., 141
 Hamers, Robert J., 555, 567
 Handa, Vandna, 745
 Hansen, W., 209
 Hara, M., 227
 Hartmann, J.M., 295
 Haurylau, Mikhail, 529
 Heiss, W., 65
 Heitmann, D., 209
 Heitmann, J., 271
 Herbst, M., 309
 Herman, Irving P., 595
 Heyn, Ch., 209
 Hidalgo, A., 455
 Higginson, Keith A., 25
 Högele, A., 95
 Homewood, K.P., 697
 Honda, Mei, 371
 Hu, Quanli, 443
 Hu, Zhihua, 667, 679
 Huang, Feiran, 163
 Huang, Shaoyun, 783
 Huang, Xinfan, 419, 425
 Huang, Ying, 347
 Huffaker, D.L., 19
 Humphreys, Elen, 395
 Hutchins, Benjamin M., 169
- Iacona, F., 761, 819
 Ichihara, T., 801
 Irrera, A., 761, 819
 Ishikawa, Nobuhiro, 443
 Islam, Mohammad A., 595
- Jackson, H.E., 65, 71
 Jaiswal, Supriya, 259

Cambridge University Press

978-1-558-99674-8 - Quantum Confined Semiconductor Nanostructures

Victor I. Klimov, Jillian M. Buriak, Danial D.M. Wayner, Francesco Priolo,

Bruce White and Leonid Tsybeskov

Index

[More information](#)

- Janotta, A., 309
 Jaskolski, W., 5
 Jellison Jr., Gerald E., 259
 Ji, Chunhai, 655
 Jiang, Yingbing, 19
 Jiménez, J., 511
 Jin, P., 119
 Jorio, Ado, 523, 673
 Jumayev, B.R., 685

 Kalameitsev, A.V., 107
 Kamenev, B.V., 755, 813
 Kamins, Theodore I., 321, 329
 Kamiya, I., 227
 Kan, Edwin C., 691
 Kanzaki, S., 357
 Karczewski, G., 65, 71
 Karimi, A., 505
 Karrai, K., 95, 107
 Karsten, L., 209
 Kashkarov, P.K., 755
 Katiyar, R.S., 455
 Katsnelson, A., 185
 Katz, David, 217
 Kauzlarich, Susan M., 289
 Kavokin, Alexey V., 153
 Kawasaki, Eri, 227
 Khás, Z., 115
 Kihara, T., 801
 Kim, T., 721
 Kim, T.W., 129
 Kirichenko, Taras A., 643
 Knickerbocker, Tanya, 555
 Kodama, Yumiko, 371
 Koguchi, N., 87
 Kohliand, Puneet, 643
 Kojima, A., 801
 Komoda, T., 801
 Kong, Guanglin, 667, 679
 Korsunskaya, N.E., 685
 Kortshagen, Uwe, 301, 721
 Koshida, Nobuyoshi, 581, 801
 Kossut, J., 65, 71
 Kovalenkov, O.V., 59
 Kovalev, D., 271
 Kraines, Benjamin J., 595

 Král, K., 115
 Krauss, Todd D., 253
 Krishnan, Rishikesh, 253, 431
 Kroutvar, M., 45
 Kudoyarova, V.Kh., 755
 Kuno, Masaru, 25
 Kuroda, T., 87
 Kycia, S., 329

 Ladanov, Mikhail, 135
 Laikhtman, B., 813
 Lamberti, M., 185
 Lasseter, Tami L., 555, 567
 Latham, Andrew H., 169
 Lavine, James P., 389
 Lee, C.H., 627
 Lee, Chungho, 691
 Lee, H.S., 129
 Lee, J.Y., 129
 Lee, Sangwoo, 745
 Lefebvre, Jacques, 53
 Lehman, Susan Y., 179
 Lewis, Laurent J., 243
 Li, A.D., 425
 Li, C., 59
 Li, Ch.M., 119
 Li, Hong-Jyh, 643
 Li, Jian, 419
 Li, W., 425
 Li, Wei, 419
 Liao, Kuen-Hou, 703
 Liao, Xianbo, 667, 679
 Ligatchev, V., 475, 487, 493
 Lin, Yu-Ming, 233, 383
 Liu, B., 475, 487
 Liu, Chuan-Pu, 703, 727
 Liu, Juzheng, 147
 Liu, Ruo-Mei, 703
 Liu, Zengtao, 691
 LoCascio, Michael, 31
 Lockwood, D.J., 243, 813
 Long, J.D., 493
 Loo, Yueh-Lin, 589
 López, Carmen M., 561
 Lu, Z.H., 243
 Lu, Zuhong, 147

Cambridge University Press

978-1-558-99674-8 - Quantum Confined Semiconductor Nanostructures

Victor I. Klimov, Jillian M. Buriak, Danial D.M. Wayner, Francesco Priolo,

Bruce White and Leonid Tsybeskov

Index

[More information](#)

- Luo, Muchang, 679
 Luppi, Marcello, 775

 Ma, Ming, 147
 Ma, Yi, 147
 Ma, Z.Y., 425
 Mackowski, S., 65, 71
 Magalhães-Paniago, R., 329
 Mahmood, J., 627
 Makino, Toshiharu, 265
 Malachias, A., 329
 Mandal, Krishna C., 739
 Mandal, N.P., 535
 Martín, P., 511
 Martin, R.W., 13
 Mattoussi, Hedi, 25
 Mayes, Eric L., 201
 Mazen, F., 295
 McCaffrey, J.P., 813
 McGhee, E.J., 95
 McMurry, P.H., 721
 McNally, Helen, 745
 Medeiros-Ribeiro, Gilberto, 321, 329
 Melgarejo, R.E., 455
 Meng, X.Q., 119
 Merz, J.L., 59
 Migita, T., 801
 Milekhin, Alexander G., 135, 141
 Millo, Oded, 217
 Minami, F., 87
 Mintairov, A.M., 59
 Mirin, Richard P., 179
 Miritello, M., 761, 819
 Mokari, Taleb, 217
 Moriguchi, Koji, 499
 Mosselmans, J.F.W., 13
 Murase, T., 227
 Murray, Clarence W., 413
 Musikhin, Sergei, 175

 Nakai, Yasuharu, 499
 Nakajima, Y., 801
 Nakano, Aiichiro, 709
 Nguyen, T.A., 65, 71
 Nikiforov, Alexander I., 135
 Noda, Tetsuji, 443

 Oda, Shunri, 783
 O'Donnell, Kevin P., 13, 461
 Ogata, Shuji, 709
 Ohlberg, Douglas A.A., 321
 Ohmukai, Masato, 371
 Ohtsuki, O., 227
 Okamoto, Hiroaki, 499
 Oktyabrsky, S., 59, 185
 Onsongo, David, 643
 Ortiz, M.I., 511
 Ossicini, Stefano, 775
 Ostrikov, K., 475, 487, 493

 Pacifici, D., 761, 819
 Park, Y.J., 129
 Pauthe, Monique, 461
 Pchelyakov, Oleg P., 135
 Pedraza, A.J., 607, 733
 Peramunage, D., 739
 Pereira, S., 13
 Pérez, Lilyanna, 351
 Perrey, Christopher R., 301
 Persans, Peter D., 163
 Petroff, P.M., 95
 Pettigrew, Katherine A., 289
 Pimenov, S.M., 449
 Pimenta, Marcos A., 523, 673
 Pinchuk, Anatoliy O., 377
 Poitras, Daniel, 53
 Polyakov, V.I., 449
 Poole, Philip J., 53
 Porter Jr., Lon A., 341, 561, 575
 Posada, Y., 541
 Power, Philip P., 289
 Priolo, F., 761, 819

 Qadri, Syed B., 25
 Qiao, Feng, 419
 Qiao, Shenru, 347

 Rabin, Oded, 383
 Rakovich, Yu.P., 157
 Ramírez-Porras, A., 437
 Ramonda, Michel, 461
 Rao, Pratima G.N., 163
 Rauh, R. David, 739

Cambridge University Press

978-1-558-99674-8 - Quantum Confined Semiconductor Nanostructures

Victor I. Klimov, Jillian M. Buriak, Danial D.M. Wayner, Francesco Priolo,

Bruce White and Leonid Tsybeskov

Index

[More information](#)

- Raynolds, James E., 31
 Resto, O., 351, 437, 517, 541
 Rho, H., 71
 Ribbe, Alexander E., 341, 575
 Riedl, H., 309
 Rodríguez, A., 511
 Rodríguez, T., 511
 Rogach, A.L., 157
 Rogers, John A., 589
 Rokhinson, Leonid P., 193
 Roshko, Alexana, 179
 Rothenberg, Eli, 217
 Rouleau, Christopher M., 259
 Rouquette, Jérôme, 461
 Rozo, C., 517
 Ruan, J., 407
 Rukovishnikov, A.I., 449
 Rusli, 475, 487
 Russell Jr., John N., 555

 Sada, Cinzia, 715
 Saito, Riichiro, 523, 673
 Salamo, G.J., 401
 Salem, B., 77
 Samsonidze, Georgii G., 523, 673
 Samulski, Edward T., 413
 Sands, T.D., 769
 Sanfilippo, D., 761, 819
 Sangrador, J., 511
 Sanguinetti, S., 87
 San Miguel, L., 351, 541
 Sarangi, D., 505
 Sargent, Edward H., 175
 Schmeltzer, J.M., 341, 561
 Schmidt, M., 271
 Scholz, R., 271
 Schulhauser, C., 95
 Schüller, C., 209
 Schulz, Stephan, 175
 Schulze, Steffen, 135, 141
 Semeria, M.N., 295
 Shao, G., 697
 Sharma, Shashank, 615
 Shen, Z., 721
 Shi, J.J., 425
 Shimojo, Fuyuki, 709

 Simpson, John T., 259
 Smirnov, Anton, 739
 Smith, L.M., 65, 71
 Smith, Lloyd M., 555, 567
 Sokolov, Vladimir I., 481
 Someya, Takao, 589
 Souza Filho, Antonio G., 523, 673
 Stewart, Michael P., 561
 Striener, Christopher C., 431, 661
 Sturm, J.C., 193
 Stutzmann, M., 309
 Su, B., 209
 Su, Lihong, 347
 Sugimura, Akira, 265
 Sun, K., 59
 Sunkara, Mahendra K., 615
 Suzuki, Hiroshi, 443
 Suzuki, Nobuyasu, 265
 Swan, A.K., 395

 Talapin, D.V., 157
 Taliencio, Thierry, 461
 Tam, H.L., 685
 Tan, P.H., 309
 Tanaka, Ichiro, 227
 Teng, Lihong, 469
 Tenne, Dmitri A., 135, 141
 Terukov, E.I., 755
 Timoshenko, V.Yu., 755
 Tkaczyk, Eric, 745
 Tobin, M.J., 13
 Tokranov, V., 59, 185
 Tomar, M.S., 455
 Tondello, Eugenio, 715
 Toropov, A.I., 141
 Toyama, Toshihiko, 499
 Tsunekuni, Hiroshi, 371
 Tsutsumi, Yasuo, 371
 Tsybeskov, Leonid, 431, 813

 Umez, Ikurou, 265
 Ünlü, M.S., 395
 Uno, K., 227
 Urbaszek, B., 95

 VanderSande, John, 395

Cambridge University Press

978-1-558-99674-8 - Quantum Confined Semiconductor Nanostructures

Victor I. Klimov, Jillian M. Buriak, Danial D.M. Wayner, Francesco Priolo,

Bruce White and Leonid Tsybeskov

Index

[More information](#)

Vinokurov, D.A., 59

Vlasov, A.S., 59

Wang, Chih-Chin, 703

Wang, Xiaowei, 419

Wang, Xin, 147

Wang, Z.G., 119

Wang, Zhiming, 401

Warburton, R.J., 95, 107

Watabe, Y., 801

Watanabe, K., 87

Weiss, Sharon M., 529

Weisz, S.Z., 517, 541

Wen, Hong, 401

Wereley, Steve, 745

White, Clark W., 259

White, M.E., 13

Williams, Mary Elizabeth, 169

Williams, R. Stanley, 321, 329

Williams, Robin L., 53

Withrow, Stephen P., 259

Wizansky, Tommer, 217

Wong, Kim K.W., 201

Wong, S.P., 697

Wong, T.K.S., 475, 487

Wrobel, J., 71

Wu, D., 425

Wu, L.C., 425

Xia, Yuqi, 595

Xiao, Jun, 347

Xie, Qianghua, 431

Xu, B., 119

Xu, Fengting, 621

Xu, Huifang, 19

Xu, Jun, 147, 425

Xu, Ling, 147

Xu, S., 493

Xu, Yanyue, 667, 679

Yakimov, M., 185

Yamada, Yuka, 265

Yang, Judith C., 621

Yang, Wen, 443

Yang, Wensha, 555

Ye, X.L., 119

Yi, L.X., 271

Ying, Jackie Y., 383

Yoshida, Takehito, 265

Yousuf, Mohammad, 25

Zacharias, M., 271

Zahn, Dietrich R.T., 135, 141

Zamoryanskaya, Maria V., 481

Zaumseil, Jana, 589

Zdenek, P., 115

Zeng, Xiangbo, 667, 679

Zhang, Aibo, 347

Zhang, Haiqian, 147

Zhang, Qiuyu, 347

Zhang, Shibin, 667, 679

Zhang, Yu, 147

Zhang, Z., 621

Zhang, Z.Y., 119

Zhao, Wei (Wayne), 649

Zhou, Guangwen, 621

Zhu, Leyi, 419

Zhukov, A.A., 209

Zielinski, Michal, 5

Zimin, Dmitri, 37

Zogg, Hans, 37

Zrenner, A., 45

Cambridge University Press

978-1-558-99674-8 - Quantum Confined Semiconductor Nanostructures

Victor I. Klimov, Jillian M. Buriak, Danial D.M. Wayner, Francesco Priolo,

Bruce White and Leonid Tsybeskov

Index

[More information](#)

SUBJECT INDEX

- activity coefficient, 621
- AFM oxidation, 193
- Al, 463
- alignment, 129
- amorphous(/)
 - nanocrystalline silicon, 679
 - silicon, 365
- anisotropic etching, 431
- annealing, 65
- atomic force microscopy, 179, 283, 535
- bacteria, 351
- $\text{Bi}_{4-x}\text{Nd}_x\text{Ti}_3\text{O}_{12}$, 455
- biocompatible, 493
- bioinspired, 745
- biosensor, 549
- biotin, 567
- bismuth, 383, 635
- bistability, 377
- boron, 643
- bottom-up fabrication, 431
- cadmium sulfide, 5
- capacitance(-)
 - spectroscopy, 209
 - voltage (C-V), 425
- capture time, 389
- carbocation, 561
- carbon nanotube(s), 505, 523
- cathodoluminescence, 481
- CdMnTe quantum dots, 65
- CdSe , 227
 - nanocrystal(s), 505
 - quantum rods, 217
- CdTe nanocrystals, 157
- chemical
 - etching, 371
 - vapor deposition, 667
- cold plasma technique, 505
- colloidal nanodot, 227
- composite nanowire arrays, 413
- conductive-tip atomic force
 - microscopy, 227
- confinement, 243
- Coulomb blockade, 425
- critical thickness, 769
- crystalline silicon, 243
- crystallinity, 493
- CuO , 715
- C-V and G-V method, 783
- CVD, 295
- defect, 487
- density functional total energy, 775
- diamond, 555
 - film, 449
- diffusion, activation, 643
- dip-pen nanolithography, 341
- DLTS spectroscopy, 449
- DNA, 555, 567, 745
 - hybridization, 549
- dots, 461
- DRAM, 649
- effective medium approximation, 377
- electric force microscopy, 253
- electrochemistry, 169
- electroless deposition, 341, 575
- electroluminescence, 581, 761, 819
- electron
 - charging, 727
 - energy loss spectroscopy, 253
 - irradiation, 365
- electrophoretic deposition, 595
- electroreflectance, 499
- emission, 801
- environment effects on fracture, 709
- epitaxial
 - growth, 401
 - Si regrowth, 193
- erbium, 271, 755, 761
- exciton(s), 95, 107, 153
- ferritin, 201
- ferroelectric effect, 455
- field-emission, 733
- fine powders, 347
- floating-zone melting, 443
- fluctuation electron microscopy, 365
- fluorescence, 147
 - spectroscopy, 289

Cambridge University Press

978-1-558-99674-8 - Quantum Confined Semiconductor Nanostructures

Victor I. Klimov, Jillian M. Buriak, Danial D.M. Wayner, Francesco Priolo,

Bruce White and Leonid Tsybeskov

Index

[More information](#)

Fourier transformed infrared spectra, 679

GaAs quantum dot, 87
gallium antimony, 175
galvanic displacement, 575
Ge/Si, 321
globose particles, 347
graphite, 523

heterostructures, 769
hybrid simulation, 709
hydrogen dilution, 469
hydrosilylation, 561
Hyper-Rayleigh scattering, 147

ICP, 721
InAs, 209
 quantum dots, 19
InAs/InP quantum dots, 53
indium
 arsenide, 5
 gallium nitride, 13
infrared emitter, 175
InGaAs, 179, 401
InN, 13
InP substrate, 77
In-rich conditions, 401
ion
 bombardment, 727
 implantation, 259
iron disilicide, 697
islands, 321

Kondo effect, 107

laser, 733
 interference crystallization, 419

lead
 chalcogenides, 37
 sulfide, 163

life time, 685
light emitting device, 685
liquid CO₂ drying, 413
low-k, 475, 487

MBE, 703
memory device, 45
mercury chalcogenide, 25
metal(-)

 induced-growth, 655
 nanocrystals, 691
metamorphic buffer, 19
method of images, 283
microcavity, 53, 529
microcontact printing, 341
modification of silica, 481
molecular
 beam epitaxy, 185
 electronics, 589

MPCVD, 703
MWCNT, 703

nanocolumns, 733
nanocomposite, 175
nanocrystal, 25, 581, 801
 growth, 329
 Si, 419
nanocrystalline
 silicon, 259, 425, 469, 517, 535,
 541, 709
 TiO₂, 739
nano-device, 193
nano-indentation, 59
nanomaterials, 667
nanometric particles, 351
nanoparticle(s), 301, 607, 721
 composites, 147
 films, 575
nanoscale silicon, 789
nanostructures, 321
nanosystems, 715
nanotube(s), 395, 567, 673
 alignment, 505
nanowire(s), 233, 383, 443, 615, 635,
 769
near-field spectroscopy, 59
negative differential conductivity,
 813
neodymium, 517
nitrogen-doped, 449

Cambridge University Press

978-1-558-99674-8 - Quantum Confined Semiconductor Nanostructures

Victor I. Klimov, Jillian M. Buriak, Danial D.M. Wayner, Francesco Priolo,

Bruce White and Leonid Tsybeskov

Index

[More information](#)

- nonlinear
 - absorption, 163
 - composites, 377
- non-linear fitting, 437
- nonvolatile memory, 691
- nucleation and growth, 615
- optical
 - amplification, 407
 - interconnect, 789
 - properties, 115, 271
 - spectroscopy, 309, 523
 - switching, 31
- optoelectronic devices, 819
- organic transistor, 589
- oxide assisted growth, 627
- particles distribution, 727
- phage display, 395
- phase-shifting grating mask, 419
- phonon(s), 135, 141, 673
 - scattering, 71
- photoluminescence, 53, 65, 71, 77, 95, 157, 185, 265, 371, 475, 535, 541, 697
 - detection, 437
 - excitation (PLE), 217
 - spectroscopy, 209
- PL intensity, 119
- plasma, 615
- polarization anisotropy, 499
- polymer, 739
- porosity gradients, 661
- porous silicon, 371, 499, 529, 549, 561, 661, 685
- protein, 201
- pulsed laser ablation, 265
- quantitative V-L-S growth model, 621
- quantum
 - dots, 13, 25, 31, 37, 45, 77, 95, 107, 119, 129, 135, 141, 153, 163, 169, 185, 295, 309, 783
 - wells, 243
- Raman, 395, 673, 679
 - scattering, 135
 - spectroscopy, 141
- reflectance, 529
- room-temperature, 475
- saturable absorber, 31
- scanning tunneling microscopy (STM), 217
- Schottky, 655
- self-assembled
 - islands, 329
 - monolayer, 589
 - quantum dots, 115
- self-assembly, 169, 691, 745
- self-organization, 607
- semiconducting silicon, 667
- semiconductor(s), 153, 201
- semimetal-semiconductor transition, 383
- Si
 - nanocrystals, 271
 - nanowires, 621
- Si-Ge, 443
- SiGe, 643
 - nanoparticles, 511
- SiGeC, 643
- silane, 721
- silicon, 295, 301, 351, 437, 461, 581, 607, 643, 655, 783, 801
 - cluster, 481
 - dioxide, 517
 - germanium, 309
 - laser, 789
 - nanocrystal(s), 253, 283, 407, 431, 761, 813, 819
 - nanoparticles, 265, 289
 - nanostructures, 755, 775
 - nanowires, 627
- simulation of diffusion, 389
- single
 - crystal, 301
 - quantum dot, 59
- size distribution, 37
- solar cell(s), 661, 739

Cambridge University Press

978-1-558-99674-8 - Quantum Confined Semiconductor Nanostructures

Victor I. Klimov, Jillian M. Buriak, Danial D.M. Wayner, Francesco Priolo,

Bruce White and Leonid Tsybeskov

Index

[More information](#)

- sol-gel, 461, 541, 715
 - process, 455
- solution processing, 357
- spectral densities, 115
- spectroscopic ellipsometry, 259
- spectroscopy, 555
- spectrum, 487
- stimulated emission, 755
- stoichiometry, 493
- strain relaxation, 329
- structural, electronic and optical
 - properties, 775
- superlattice, 233
- superluminescent diodes, 119
- surface
 - absorption, 389
 - effect, 635
- TEM, 511, 649, 697, 703
- thermal oxidation, 511
- thermoelectricity, 233
- thin film(s), 595
 - transistor, 469
- II-VI semiconductors, 71
- TiAl, 649
- tight-binding electronic structure
 - simulations, 5
- time-resolved micro PL, 87
- TiO₂/CdS, 413
- transmission electron microscopy,
 - 129, 179, 289
- tubular particles, 357
- tunneling, 813
- up-conversion, 157
- variable stripe length, 407
- virgulate particles, 347
- VLS, 627
- wavelength selectivity, 45
- ZnO particles, 357