
Contents

1 Quantum Statistical Properties of the Light Emission from Quantum Dots in Microcavities <i>C. Gies, J. Wiersig, and F. Jahnke.....</i>	1
2 Growth and Control of Optically Active Quantum Dots <i>Armando Rastelli, Suwit Kiravittaya, and Oliver G. Schmidt</i>	31
3 Optical Properties of Epitaxially Grown Wide Bandgap Single Quantum Dots <i>Gerd Bacher and Tilmar Kümmell</i>	71
4 Coherent Electron Spin Dynamics in Quantum Dots <i>Manfred Bayer, Alex Greilich, and Dmitri R. Yakovlev.....</i>	121
5 Quantum Dot Nuclear Spin Polarization <i>Patrick Maletinsky and Atac Imamoglu</i>	145
6 Quantum Dot Single-Photon Sources <i>Peter Michler</i>	185
7 Entangled Photon Generation by Quantum Dots <i>Andrew J. Shields, R. Mark Stevenson, and Robert J. Young</i>	227
8 Cavity QED in Quantum Dot–Micropillar Cavity Systems <i>S. Reitzenstein and A. Forchel</i>	267
9 Physics and Applications of Quantum Dots in Photonic Crystals <i>Dirk Englund, Andrei Faraon, Ilya Fushman, Bryan Ellis, and Jelena Vučković</i>	299

XII Contents

10 Optical Spectroscopy of Spins in Coupled Quantum Dots <i>Matthew F. Doty, Michael Scheibner, Allan S. Bracker, and Daniel Gammon</i>	331
11 Quantum Information with Quantum Dot Light Sources <i>M. Scholz, T. Aichele, and O. Benson</i>	367
Index	385