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Sommario/riassunto	This book discusses the basic physics of semiconductor macroatoms at the nanoscale as well as their potential application as building blocks for the realization of new-generation quantum devices. It provides a review on state-of-the art fabrication and characterization of semiconductor quantum dots aimed at implementing single-electron/exciton devices for quantum information processing and communication. After an introductory chapter on the fundamentals of quantum dots, a number of more specialized review articles presents a comprehensive picture of this rapidly developing field, specifically