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Sommario/riassunto

Filling a gap in the literature, this up-to-date introduction to the field provides an overview of current experimental techniques, basic theoretical concepts, and sample fabrication methods. Following an introduction, this monograph deals with optically active quantum dots and their integration into electro-optical devices, before looking at the theory of quantum confined states and quantum dots interacting with the radiation field. Final chapters cover spin-spin interaction in quantum dots as well as spin and charge states, showing how to use single spins for break-through quantum comput