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| Collana                 | Handbook of Nanophysics                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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Chapter 32. Optical Antenna Effects in Semiconductor Nanowires  
Chapter 33. Theory of Quantum Ballistic Transport in Nanowire Cross-Junctions; PART VI: Atomic Wires and Point Contact; Chapter 34. Atomic Wires; Chapter 35. Monatomic Chains; Chapter 36. Ultrathin Gold Nanowires; Chapter 37. Electronic Transport through Atomic-Size Point Contacts; Chapter 38. Quantum Point Contact in Two-Dimensional Electron Gas; PART VII: Nanoscale Rings; Chapter 39. Nanorings; Chapter 40. Superconducting Nanowires and Nanorings; Chapter 41. Switching Mechanism in Ferromagnetic Nanorings  
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### Sommario/riassunto

Intensive research on fullerenes, nanoparticles, and quantum dots in the 1990s led to interest in nanotubes and nanowires in subsequent years. Handbook of Nanophysics: Nanotubes and Nanowires focuses on the fundamental physics and latest applications of these important nanoscale materials and structures. Each peer-reviewed chapter contains a broad-based introduction and enhances understanding of the state-of-the-art scientific content through fundamental equations and illustrations, some in color. This volume first covers key aspects of carbon nanotubes, including quantum and electron transpor

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