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Nota di contenuto	Front cover; Contents; Preface; Acknowledgment; About the Editor; Contributors; Part I: Research Challenges and Clustering; Body; Chapter 1: Research Challenges in Communication Protocol Design for Underwater Sensor Networks; Chapter 2: Optimal Clustering for Underwater Acoustic Sensor Networks; Part II: Topology Control and Routing; Chapter 4: Multipath Virtual Sink Architecture for Underwater Sensor Networks; Chapter 5: A Survey of Fault Tolerance in Ad-Hoc Networks and Sensor Networks; Chapter 6: Time Synchronization in Sensor Networks and Underwater Sensor Networks Part IV: Medium Access ControlChapter 7: MAC Protocol Design for Underwater Networks; Chapter 8: Dynamic TDMA- and MACA-Based Protocolsf or Distributed Topology Underwater Acoustic Networks; Chapter 9: Medium Access Control Layer for Underwater Sensor Networks; Part V: Software, Hardware, and Channel Modeling; Chapter 10: Software-Driven Underwater Acoustic Sensor Networks; Chapter 11: HW /SW Co-Design of a Low-Cost Underwater Sensor Node with Intelligent, Secure Acoustic Communication Capabilities; Chapter 12: Channel Modeling for Underwater AcousticS ensor Networks; Index; Back cover
Sommario/riassunto	A detailed review of underwater channel characteristics, Underwater Acoustic Sensor Networks investigates the fundamental aspects of

underwater communication. Prominent researchers from around the world consider contemporary challenges in the development of underwater acoustic sensor networks (UW-ASNs) and introduce a cross-layer approach for effective integration of all communication functionalities. Discussing architectures for two- and three-dimensional sensor networks, this authoritative resource clearly delineates the main differences between terrestrial
