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Nota di contenuto	Preface -- Chapter 1 Cloning and characterization of genes involved in the biomineralization of pearl oyster -- Chapter 2 Characterization and functions of proteins involved in the biomineralization of pearl oyster -- Chapter 3 Study of enzymes involved in the biomineralization of pearl oyster -- Chapter 4 Cell culture and related biomineralization study of pearl oyster -- Chapter 5 Cell signaling pathway involved in the biomineralization of pearl oyster -- Chapter 6 Structural biology of the biomineralization of pearl oyster -- Chapter 7 Environmental biology of biomineralization of pearl oyster.
Sommario/riassunto	This book presents an overview of our current understanding of the biomineralization mechanisms for shell formation in the pearl oyster Pinctada fucata, based on molecular biology, biochemistry, cell biology, structural biology and environmental biology. Pinctada fucata is the major pearl-producing shellfish in the South China Sea and is also an established model system for the research on the nacre biomineralization mechanism. Extensive studies on nacre biomineralization have provided valuable information for novel bionic material design. Discussing the isolation and gene cloning of the

matrix proteins involved in the shell formation, as well as the cell signaling pathways, shell microstructures, and the environmental impacts on shell biomineralization, it is a valuable reference resource for researchers working in the field of nacre biomineralization and biomaterials.
