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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Part 1. Introduction -- Chapter 1. The Biomimicry Discipline: Boundaries, Definitions, Drivers, Promises & Limits -- Chapter 2. The Biomimicry Design Process: Characteristics, Stages and Main Challenge -- Chapter 3. Biomimetic Design Methods – Literature Review -- Chapter 4. Literature Review Conclusions and Definition of Research Target -- Part 2. Research Method -- Chapter 5. Research Model -- Chapter 6. Theories, Knowledge Bases and Conceptual Frameworks that Support the Analysis of Observations -- Part 3. Research Methodology, Process & Results -- Chapter 7. Functional Patterns -- Chapter 8. Structure Function Patterns -- Chapter 9. Sustainability Patterns -- Chapter 10. The Structural Biomimetic Design Method Manual -- Part 4: Experimentation -- Chapter 11. Case Studies -- Chapter 12. Field Experiments -- Part 5. Discussion & Summary -- Chapter 13. Discussion & Summary.
Sommario/riassunto	Presenting a novel biomimetic design method for transferring design

solutions from nature to technology, this book focuses on structure-function patterns in nature and advanced modeling tools derived from TRIZ, the theory of inventive problem-solving. The book includes an extensive literature review on biomimicry as an engine of both innovation and sustainability, and discusses in detail the biomimetic design process, current biomimetic design methods and tools. The structural biomimetic design method for innovation and sustainability put forward in this text encompasses (1) the research method and rationale used to develop and validate this new design method; (2) the suggested design algorithm and tools including the Findstructure database, structure-function patterns and ideality patterns; and (3) analyses of four case studies describing how to use the proposed method. This book offers an essential resource for designers who wish to use nature as a source of inspiration and knowledge, innovators and sustainability experts, and scientists and researchers, amongst others.
