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Nota di contenuto	About the Editors -- Preface to "Biomimetic Buildings: Copying Nature for Energy Efficiency" -- Biomimetic Design for Building Energy Efficiency 2021 -- Biomimicry for Energy-Efficient Building Design: A Bibliometric Analysis -- Numerical Assessment of Zebra-Stripes-Based Strategies in Buildings Energy Performance: A Case Study under Tropical Climate -- Sustainability Assessment of the Anthropogenic System in Panama City: Application of Biomimetic Strategies towards Regenerative Cities -- Developing a Method to Connect Thermal Physiology in Animals and Plants to the Design of Energy Efficient Buildings -- An Inspection of the Life Cycle of Sustainable Construction Projects: Towards a Biomimicry-Based Road Map Integrating Circular Economy -- Bio-Inspired Electricity Storage Alternatives to Support Massive Demand-Side Energy Generation: A Review of Applications at Building Scale.
Sommario/riassunto	Buildings are responsible for almost one third of global energy consumption. The building and construction sector could thus make a significant contribution to the communal effort needed to meet the Paris Agreement that would substantially reduce global greenhouse gas emissions and mitigate climate change. Given the importance of decarbonizing buildings and making them energy efficient in order to meet the Paris Agreement, and bearing in mind the promising role of biomimetic solutions in achieving this goal, this book reports on some recent research in the field related to bio-inspired approaches for reducing building energy use. This book includes a review of the use of

biomimicry in modern building design; how both the Saharan ant and the zebra have inspired strategies for reducing energy use in Panama City; how the study of biomimetics can contribute to city regeneration; the description of a method to connect the thermal physiology of plants and animals to thermal challenges in buildings; how biomimicry could contribute to creating a circular economy in the construction sector; and how advances in electricity storage could benefit from a biomimetic approach. This book thus covers a combination of research and review articles to offer a glimpse into current biomimetic design strategies together with new directions for future research.