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Altri autori (Persone)	VincenziniP. <1939->
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Nota di contenuto	Mining Smartness from Nature; Preface and Committees; Table of Contents; Chapter 1: Biomimetic Materials; Mimicking the Anisotropic Behavior of Natural Porous Structures by Controlling the Reinforcing Particles Distribution in Polymeric Foams; Mimicking Bone Architecture in a Metallic Structure; Novel Bionic Biomembrane Supported by Gold Nanoparticles/Cellulose Hybrid Films; Chapter 2: Biomimetic Sensors, Actuators and Systems; Imitating the Cricket Cercal System: The Beauty of the Beast with a Twist of the Engineer; Actuator-Like Hydrogels Based on Conductive Chitosan Use of Textile Friction to Mimic Hill's Model in Dynamic Contraction of Braided Artificial MusclesBio-Inspired Active Electrolocation Sensors for Inspection of Tube Systems; Biomimetics in Energy Systems: Light Transmission in the Window Plant Fenestraria aurantiaca as Inspiration for New Solutions in the Technical World; Chapter 3: Biomimetic Flow Control; Numerical Simulations of the Clap-Fling-Sweep Mechanism of Hovering Insects; Controlling Flow Structures by Wing Motion in a Flapping-Flight Model; Advantages of an Ornithopter against an Airplane with a Propeller; Biomimetic Wings Keywords IndexAuthors Index

Sommario/riassunto

The 12 peer-reviewed papers collected here together offer a plenitude of up-to-date information on ""Mining Smartness from Nature"". The papers are conveniently arranged into: Chapter 1: Biomimetic Materials, Chapter 2: Biomimetic Sensors, Actuators and Systems, Chapter 3: Biomimetic Flow Control. Review from Book News Inc.: Vincenzini (World Academy of Ceramics, Italy) et al. bring together 12 papers presented by researchers working in biomedical materials, engineering, biology, zoology, and other areas in Europe, Brazil, and Asia at Symposium H, ""Mining Smartness from Nature,"" of CIMTEC 20
