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Nota di contenuto	I. Functional properties of biological surfaces. ch. 1. Biomimetics of skins / Julian F. V. Vincent. ch. 2. The shark skin effect / Amy W. Lang. ch. 3. Lotus effect : superhydrophobicity and self-cleaning / Michael Nosonovsky and Edward Bormashenko. ch. 4. The moth-eye effect - from fundamentals to commercial exploitation / Andreas Gombert and Benedikt Blasi. ch. 5. The gecko effect : design principles of the Gekkotan adhesive system across scales of organization / Anthony P. Russell and Megan K. Johnson -- II. Characterization of surfaces. ch. 6. Micro- and nano-scopic observation of biological surfaces / Zhaojie Zhang and Qun Ren. ch. 7. RIMAPS and variogram characterization of micro-nano topography / Nestor O. Fuentes and Eduardo A. Favret. ch. 8. Capillary phenomena / Gerardo Callegari and Adriana Calvo. ch. 9. Chemical characterization of biological and technological surfaces / Peter Kruse -- III. Methods for modifying man-made surfaces. ch. 10.

Laser interference metallurgy / Frank Mucklich and Andres Fabian Lasagni. ch. 11. Electrodeposition - fundamental aspects and methods / Stanko R. Brankovic. ch. 12. Surface modification by plasma-based processes / Evangelina De Las Heras ... [et al.].

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Sommario/riassunto

This review volume explores how the current knowledge of the biological structures occurring on the surface of moth eyes, leaves, sharkskin, and the feet of reptiles can be transferred to functional technological materials.

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