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Nota di contenuto	1. Introduction and state of the art of anti/de-icing technologies -- 2. Freezing mechanism and ice accumulation -- 3. Non-wetting interface on micro-nanostructure surfaces -- 4. Slippage interface on lubricious surfaces -- 5. Water-film flowing control on the solid surfaces -- 6. Inhibition of ice nucleation and grow in molecular scale -- 7. Freezing delay mechanism and macroscopic performance -- 8. Control of ice formation process and ice distribution -- 9. Ice adhesion on micro-nanostructure surfaces -- 10 Ice adhesion on lubricious surfaces -- 11. Solid-ice interface fracture and controlling methods -- 12. Photothermal anti/de-icing technologies.-13.Anti/de-icing technologies coupling with active methods -- 14. Energy-consumption control and engineering applications.
Sommario/riassunto	This book fills the gap in the field of anti-icing by providing a comprehensive introduction to anti-icing materials and their technology. Additionally, the contents are important guidance for researchers, engineers, and graduate and undergraduate students.

Icing can cause malfunctions or serious performance degradation in outdoor facilities, such as transportation and energy equipment, resulting in significant economic losses and even loss of life. With the rapid development of the aviation and renewable energy industries, minimizing anti-icing has become an urgent scientific problem worldwide. Traditional thermal and mechanical de-icing methods are used to prevent or inhibit ice formation, but they consume a huge amount of energy. Therefore, it is necessary to develop new passive anti-icing technologies. In the last decade, icephobic materials have received increasing attention as commonly used passive anti-icing materials. .