Special Issue

Research Progress and Application of Super-hydrophobic Anti-icing Surface

Message from the Guest Editors

Icing is a normal natural phenomenon. However, unnecessary surface icing will lead to serious accidents and disasters. Based on the great harm caused by the icing problem, relevant scholars have carried out a lot of research and devoted themselves to protection against icing, but it is still a challenge to develop an efficient, energy-saving, environmentally friendly, stable and durable anti-icing surface. The main goal of this Special Issue is to stimulate innovation by exploring the combination of superhydrophobic surfaces and aviation safety. We seek new contributions to demonstrate the feasibility of superhydrophobic anti-icing surfaces by integrating materials science, physics and mechanical engineering into aviation anti-icing technology in areas including, but not limited to, the following: surface icing conditions and hazards, efficient ice accumulation protection strategies, superhydrophobic design and development, research on superhydrophobic anti-icing performance, failure mechanism and improvement measures of superhydrophobic anti-icing surfaces.

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Message from the Editorial Board

Now more than ever, research is asked to deliver knowledge and technologies to solve the major challenges faced by our society. The development of new materials and devices for (without the ambition to be exhaustive) energy, health and food technology, together with the need for establishing processes that reduce the impact on critical resources and the environment, is indeed in the spotlight of most contemporary research. Surface science and engineering play a key role in this regard, with an incredible potential in delivering new and deep scientific understanding and technical solutions essential to solve most of the major societal challenges.
Coatings is a well-established, peerreviewed, online journal dedicated to the vibrant field of surface science and engineering. Coatings publishes original research articles that report cutting-edge results and review papers that make the point on the hottest research topics.

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