



ACTIVE ICE-PHOBIC COATINGS FOR WIND-TURBINES - EISAB

The formation of thick ice layers on wind-turbines, air planes and cooling devices increases shutdown periods, makes maintenance more difficult and drastically reduces its efficiency. Falling ice clumps can also be a hazard for residents. As a consequence, wind turbines have to be turned off by law as soon as ice starts to form on the blades.

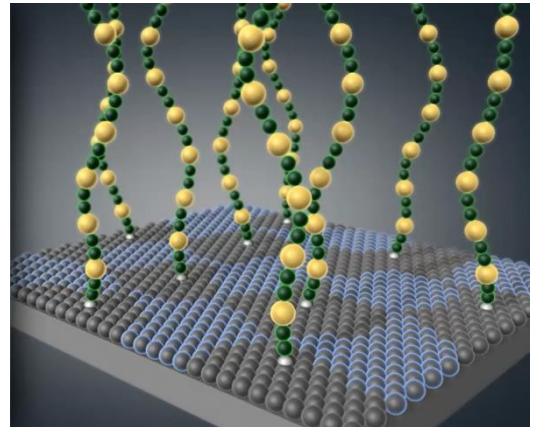
Scientists at the Technische Universität Dresden (TUD) and the Leibniz Institute of Polymer Research Dresden (IPF) are working on new anti-ice coating approaches in the project: EISAB.

The objective of the EISAB project is to design an active polymeric coating that postpones the formation of ice layers and decreases ice adhesion on surfaces.

For this purpose a nano-structure of polymer brushes is combined with a pyroelectric active polymer, which collectively interacts with the water adjacent to the surface.

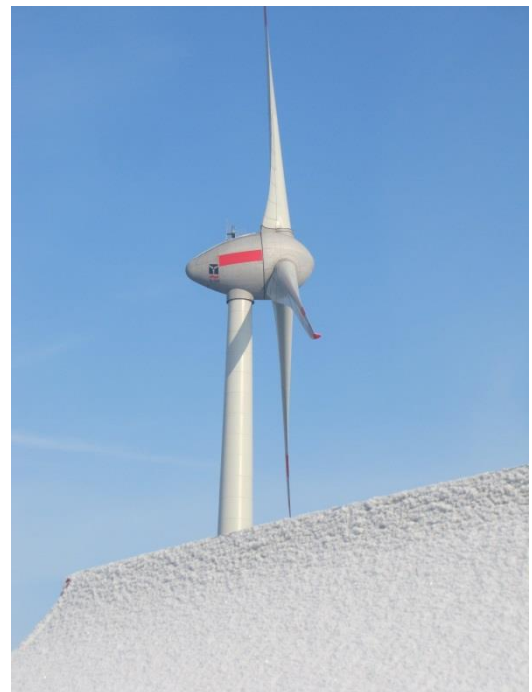
Project collaborators in EISAB are the CIMTT and the Institute of materials science (IFWW) at the TU Dresden, as well as the Leibniz Institute of Polymer Research Dresden (IPF).

Projekt duration: 01.09.2014 - 31.08.2018



A nano-structure of polymer brushes is combined with a pyroelectric active polymer

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