



SEMINAR ANNOUNCEMENT

“Ice-phobic coating for Wind Turbines”

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Samples of wind turbine blade surface have been covered with a superhydrophobic coating made of silica nanoparticles embedded in commercial epoxy paint. The superhydrophobic surfaces have a water contact angle around 151° , a hysteresis less than 2° and a water drop sliding angle around 0.5° . These surfaces are water repellent so that water drops cannot remain motionless on the surface. Examination of coated and uncoated surfaces with scanning electron microscopy and atomic force microscopy, together with measurements of water contact angles, indicates that the air trapped in the cavity enhances the water repellency similarly to the lotus leaf effect. The production of this nanoscale coating film being simple and low cost, it can be considered as a suitable candidate for water protection of different outdoor structures.

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