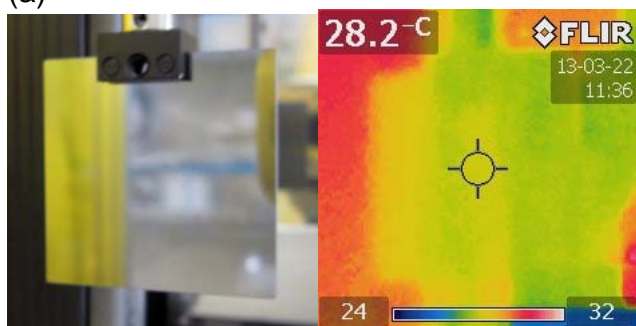
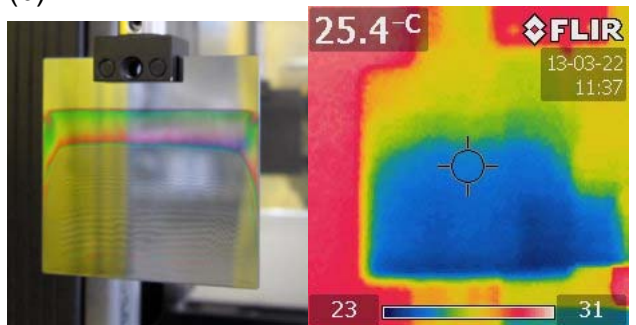


Supporting Information

(a)



(b)



5 **Fig. S1** Photograph (left) and IR thermometer image (right) of (a) bare Si substrate before coating and (b) coated with film (precursor solution) during the reference process.

The temperature of the film at the centre of the substrate in the
10 preparation process (Fig. S1b right) is about 3°C lower than that
of the substrate before the coating process (Fig. S1a right). This
indicates the existence of the cooling effect; however it is
difficult to quantify the amount of the absorbed water from these
data. Considering the large latent heat of vaporization of the
15 alcohols (equal to condensing 1.4 μm of water if it is converted
completely), it should be reasonable that the cooling effect is the
cause of the water uptake.