## **Supplementary Information**

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**Fig. S3** AFM morphology images of 160 nm-thick films. (a), (b), (c), (d) and (e) are images of the SVA films annealed at 140 °C for increasing period of 20 min, 1 h, 1.5 h, 2 h and 3 h, respectively. (f), (g) and (h) are images of the TA films annealed at 140 °C for increasing period of 1 h, 2 h and 3 h, respectively.



**Fig. 55** larger area SEIVI images OT 160nm-tnick tilms with a smaller magnification. (a) The as-cast film. (b), (c) and (d) are the images of TA films annealed at 140 °C for 20 min, 1 h and 3 h, respectively. (d), (f), (g), (h) and (i)

are the images of SVA films annealed at 140  $^{\rm o}{\rm C}$  for 20 min, 1 h, 1.5 h, 2 h and 3 h, respectively.



**Fig. S6** SEM photographs of 160nm-thick films with a larger magnification. (a) The as-cast film. (b), (c) and (d) are the images of TA films annealed at 140 °C for 20 min, 1 h and 3 h, respectively. (d), (f), (g), (h) and (i) are the images of SVA films annealed at 140 °C for 20 min, 1 h, 1.5 h, 2 h and 3 h, respectively.