



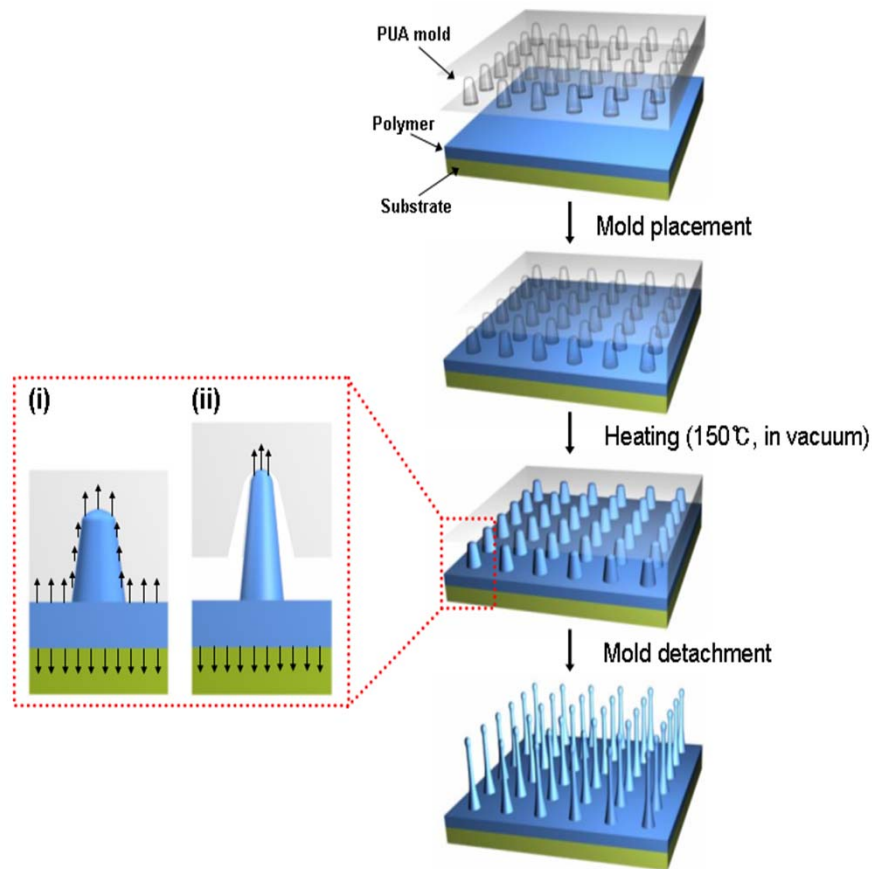
Mimicking gecko foot hairs

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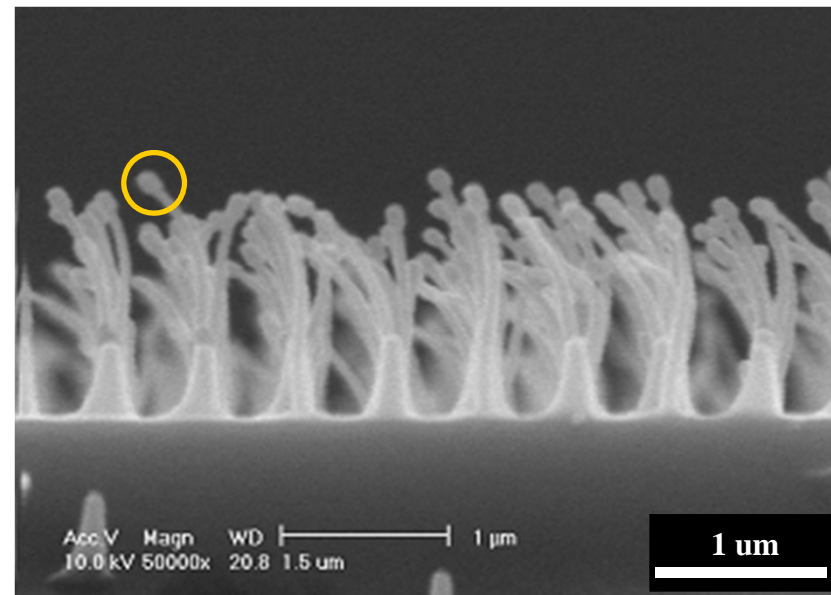
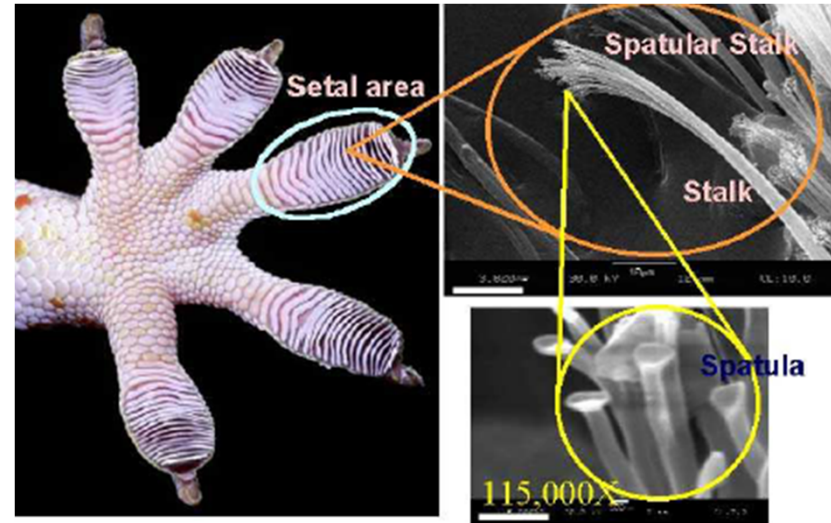
Gecko foot structure

High aspect ratio nanostructures (Nano-hair)

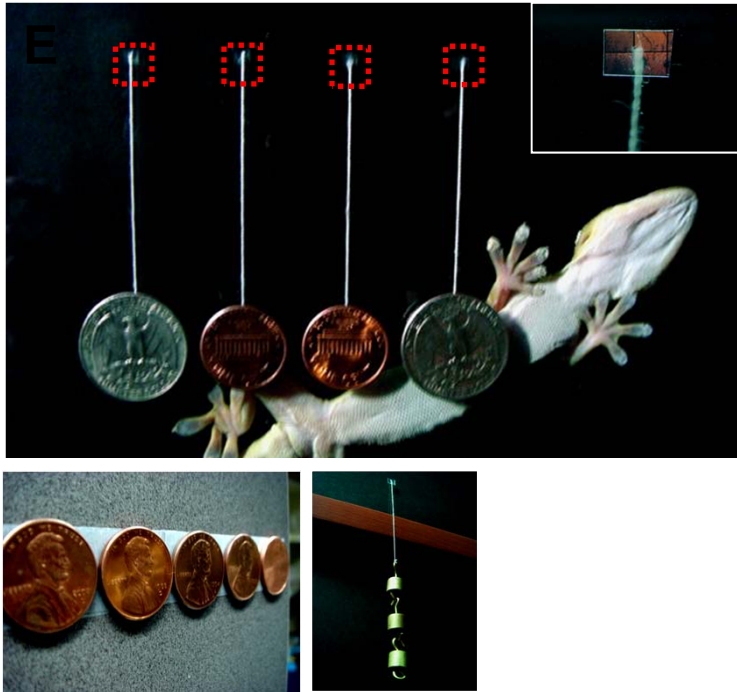


Nanodrawing

Jeong et al., Nano Lett. (2006)



Adhesion tests



Very hydrophobic
(CA : ~144 degree)

JKR Model :

$$F_{ad} = \frac{3}{2} \pi R W_{12} \rightarrow 11 \text{ N/cm}^2 \quad (\text{gecko} : \sim 10 \text{ N/cm}^2)$$

Dry adhesive : ~ 4 N/cm²



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