

### **Description of Additional Supplementary Files**

File Name: Supplementary Movie 1

Description: Tiny droplets move from the joint to the knot. Due to the surface energy gradient and Laplace pressure, the tiny water droplets can move directionally from the joint part to the knot part to form larger water droplet.

File Name: Supplementary Movie 2

Description: Droplets move up to the domain knot. The water droplets can overcome the gravity and move up to domain knots.