

## Supplementary information

### **Bioinspired multi-structured hybrid surfaces for directional droplet transport and ultra-efficient atmospheric water collection**

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## **Supplementary movie**

**Supplementary movie 1.** Adsorption of droplets on hybrid surface with 1 mm superhydrophilic pore.

**Supplementary movie 2.** Coalescence and adsorption of droplets on pore-corner hybrid surfaces.

**Supplementary movie 3.** The fusion, directional migration, and detachment of droplets on superhydrophilic pore surface.

**Supplementary movie 4.** The fusion, directional migration, and detachment of droplets on pore-corner surface.

**Supplementary movie 5.** The fusion, directional migration, and detachment of droplets on corner guide-channel hybrid surface.