## Stick-Slip Water Penetration into Capillaries Coated with Swelling Hydrogel: Supplementary Info

Video 1: water propagation through a 700  $\mu m$  ID capillary with PNIPAM coating on the inner wall

Video 2: Swelling of PNIPAM coating when water reaches the end of a capillary

Video 3:200X zoom of meniscus propagation through PNIPAM coated capillary. (TOP) water (BOTTOM) glycerol

Video 4: Contact angle evolution on PNIPAM film. (TOP) water (BOTTOM) glycerol