Electronic Supplementary Material (ESI) for Journal of Materials Chemistry A

Supporting Information

Cellulose fibers coated with carbon nanotube networks for water sensing

Haisong Qi, Jianwen Liu, Yinhu Deng, Shanglin Gao and Edith Mäder*

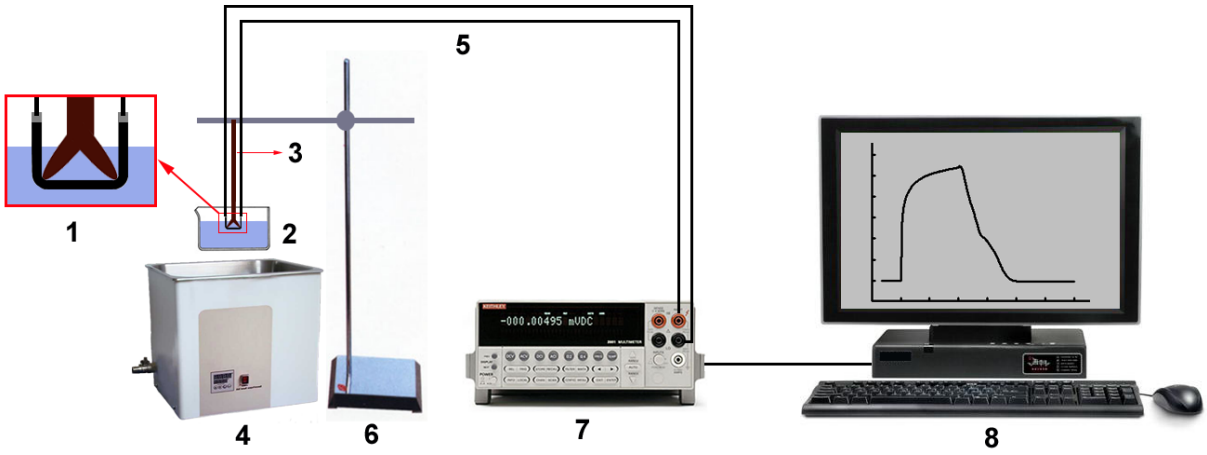

Figure S1. The scheme of experimental setup of electrical resistance measurement for CNT-cellulose fibers subjected to liquid sensing: 1, MWNT-cellulose fibers (ca. 3 cm) supported by frame; 2, beaker with water; 3, poly(tetrafluoroethylene) frame; 4, heating/cooling bath; 5, wires; 6, iron support; 7, multimeter (Keithley 2001); 8, computer for data collection.

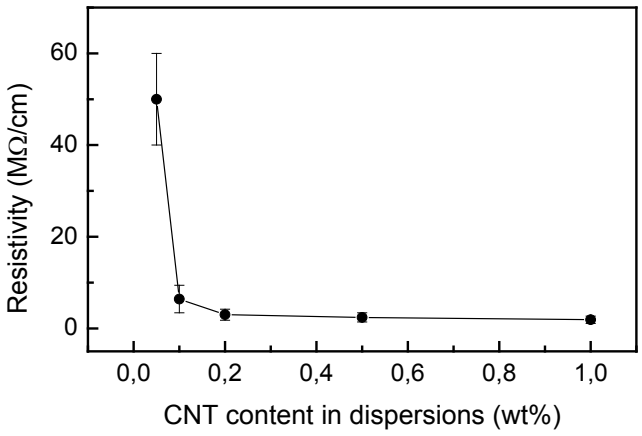

Figure S2. Resistivity as a function of CNT weight fraction in dispersions (dipping for one time).

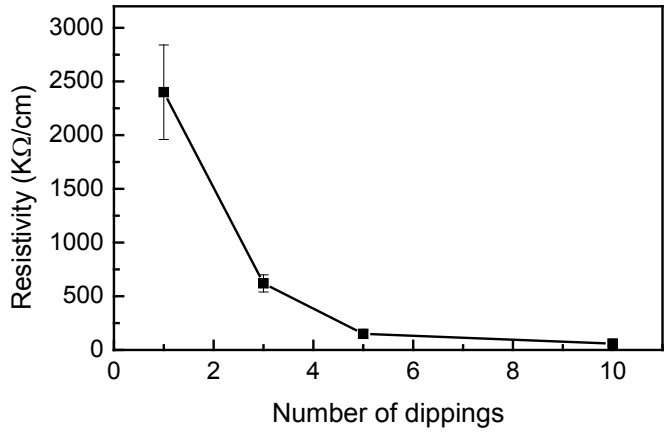

Figure S3. Resistivity as a function of dipping repetitions (for dispersion with 0.5 wt% CNT).

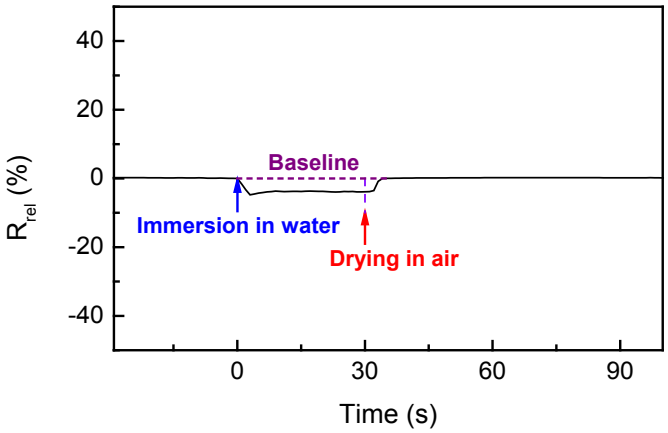

Figure S4. Relative resistance change (R_{rel}) of the MWNT-glass fibre (R_0=1.79 MΩ) during wetting/drying cycle in water/air at 20 °C.

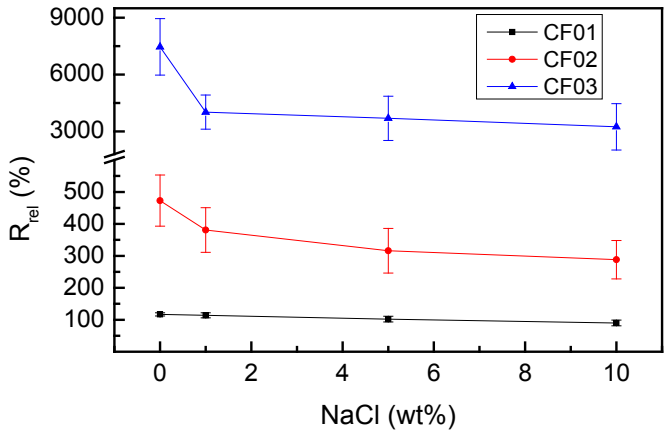

Figure S5. Relative resistance change (R_{rel}) of the MWNT-cellulose fibres in aq. NaCl with different NaCl concentration at 20 °C.