

## Supporting Information

### **A Dual Ammonia-Responsive Sponge Sensor: Preparation, Transition mechanism and Sensitivity**

*Jiahong Guo*<sup>a</sup>, *Zhiwei Bai*<sup>a</sup>, *Yonglei Lyu*<sup>b</sup>, *Jikui Wang*<sup>a\*</sup>, *Qiang Wang*<sup>c</sup>

- a. Polymer Processing Laboratory, Key Laboratory for Preparation and Application of Ultrafine Materials of Ministry of Education, School of Material Science and Engineering, East China University of Science and Technology, Shanghai 200237, China. No.130 Meilong Road, Xuhui District. E-mail: wang326@ecust.edu.cn.
- b. Department of Chemistry, University of Turku, Vatselankatu 2, 20500 Turku, Finland.
- c. Sofima Automotive Filter (Shanghai) Co., LTD. Shanghai, 201707.

Corresponding author: Jikui Wang. E-mail: [wang326@ecust.edu.cn](mailto:wang326@ecust.edu.cn).

**Supporting Information includes:** Movie Caption S1

#### **Supporting Movie Caption**

**Movie S1:** The continuous video of droplets sliding phenomenon when dipping water on In(OH)<sub>3</sub>-BCP-TiO<sub>2</sub> based ammonia responsive (IBT-AR) sponge.