

Nanoporous Silica-Dye Microspheres for Enhanced Colorimetric Detection of Cyclohexanone

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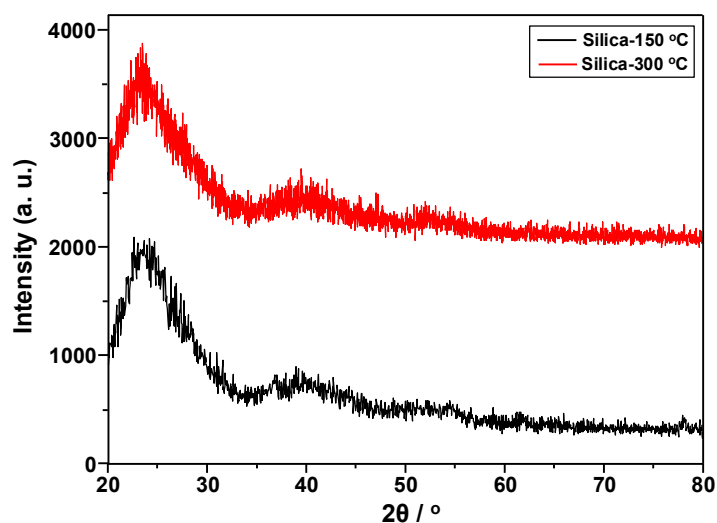


Figure S1. Powder XRD patterns of two silica-dye microspheres synthesized at 150 and 300 °C. The spectra confirm the amorphous structures of both microspheres.

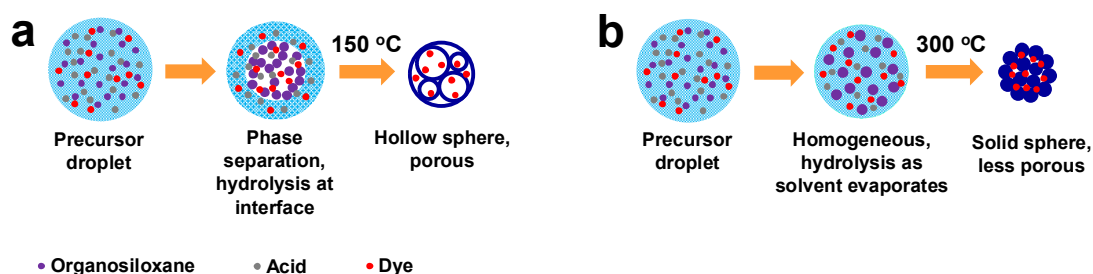


Figure S2. Proposed mechanisms showing the formation of porous microspheres at (a) 150 and (b) 300 °C.

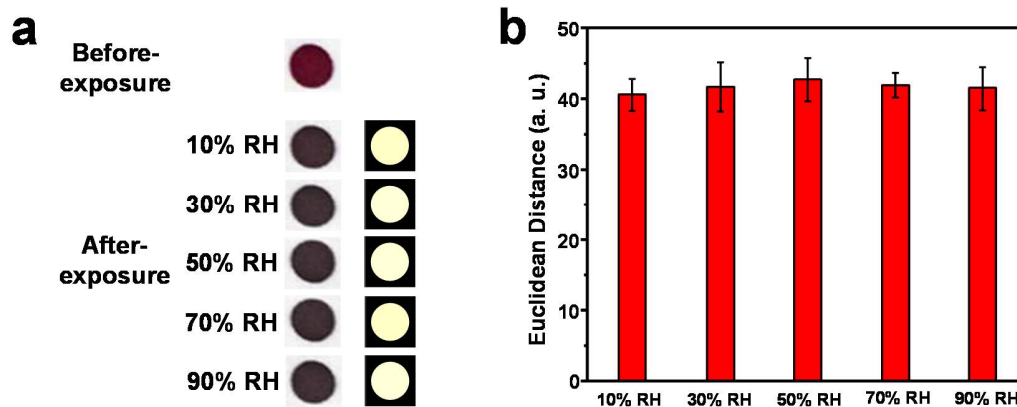


Figure S3. Humidity tests of microsphere-based sensors synthesized at 150 °C. (a) Before- and after-exposure images of the sensor spot and RGB difference profiles upon exposure of 1 ppm cyclohexanone with the 10%–90% relative humidity (RH), which is displayed in the color range of 3–10. (b) Sensor response to 1 ppm cyclohexanone at different levels of RH.