## **Supplementary Materials: Pickering Emulsion-Based Marbles for Cellular Capsules**



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**Figure S1.** Pickering emulsion droplets size distribution with different stabilizer content: (**A**) 1 w/v % of H<sub>30</sub> silica particles, sample P<sub>0.02-0.1-2</sub>; (**B**) 2 w/v % of H<sub>30</sub> silica particles, sample P<sub>0.04-0.1-2</sub>.



**Figure S2.** (**A**) the Pickering emulsion was too viscose to be injected dropwise from needle when the concentration of PLLA or stabilizer particles was too high; (**B**) The preparation of Pickering emulsion marbles via rolling with silica particles; (**C**) the Pickering emulsion marbles break after transferring to a glass base when the concentration of stabilizer particles was set to 0.5 w/v % (sample  $P_{0.01-0.1-2}$ ); (**D**) water phase was extruded out from emulsion marbles when the concentration of stabilizer particles was 1 w/v % (sample  $P_{0.02-0.1-2}$ ); (**E**) the formative capsule after dry from marbles in Picture (**D**).



**Figure S3.** Type determination of water in oil Pickering emulsion: (**A**) in CH<sub>2</sub>Cl<sub>2</sub> solution; (**B**) in ultrapure water.



Figure S4. The attempt of utilizing pure water to prepare liquid marble with H<sub>30</sub> particles.



Figure S5. The formation mechanism of pores on the surface of capsule.