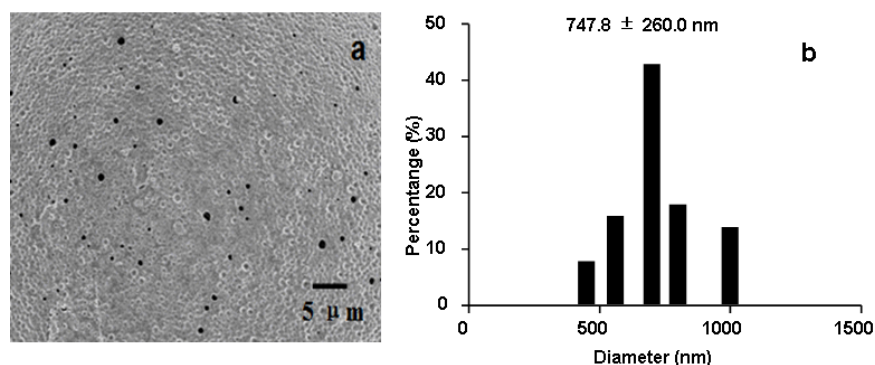
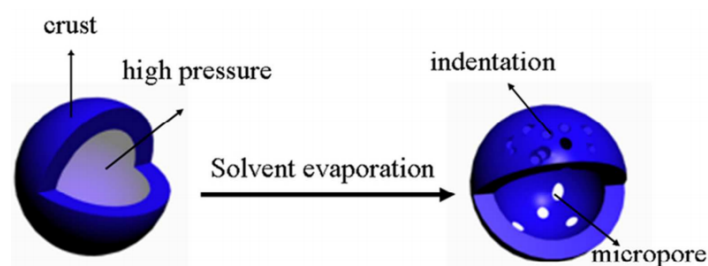


## Supplementary materials



**Figure S1** a) Surface image of mesoporous microsphere, and b) the size distribution of macropores.



**Figure S2** Formation process of micropores in PLGA microsphere. With DCM evaporation, a PLGA crusty generated and PLGA/DCM solution was trapped in the crusty. Due to the high volatility of DCM, the vapor pressure in crusty increased quickly. To reduce the pressure quickly, many micropores formed with DCM evaporation and microsphere solidification.