Electronic Supplementary Material (ESI) for RSC Advances.

Supporting information

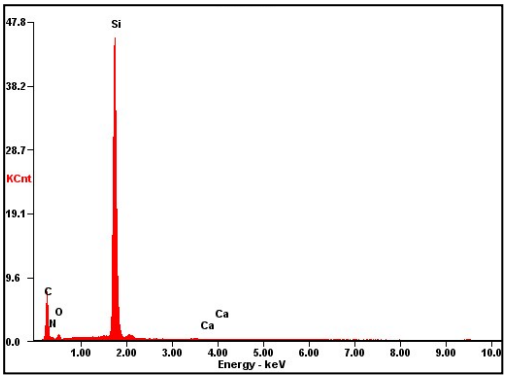

Figure S1. EDX analysis of PU microcapsules

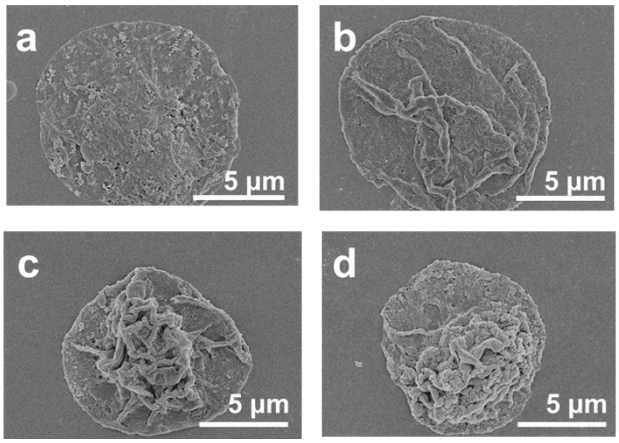

Figure S2. SEM images of PU microcapsules prepared by incubation of the $CaCO_3$ particles in 10% PU solution for (a) 20 min, (b) 1 h, (c) 6 h, and (d) 24 h, following with 1 h crosslinking by HDI.

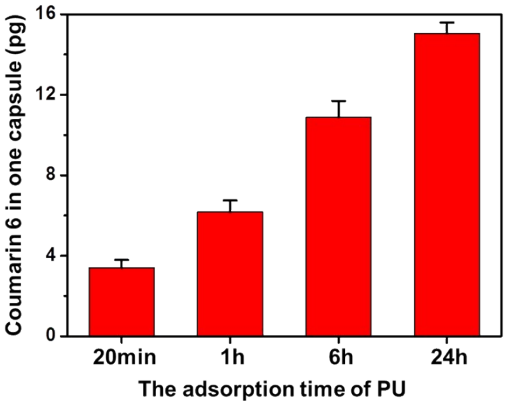

Figure S3. Average loading amount of coumarin 6 in one PU capsule fabricated by incubating the CaCO3 particles in 10% PU solution for different time, following with 1 h crosslinking by HDI.

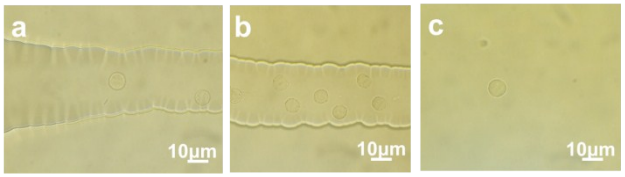

Figure S4. Optical microscope images of PU microcapsules at the entrance to the microchannel (a), within the channel (b) collected ones after squeezed through the channel (c).

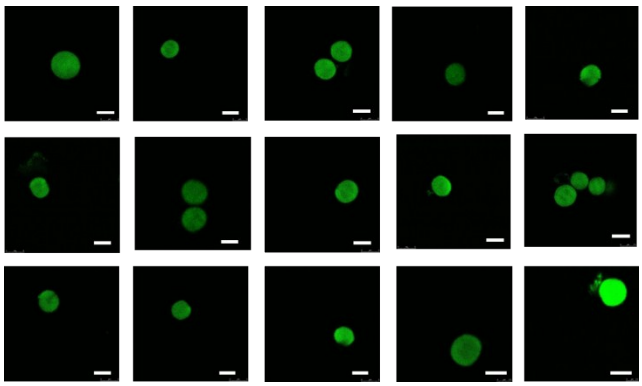

Figure S5. CLSM images of microcapsules after being squeezed through the microchannel. Scale bar: 5 μm.

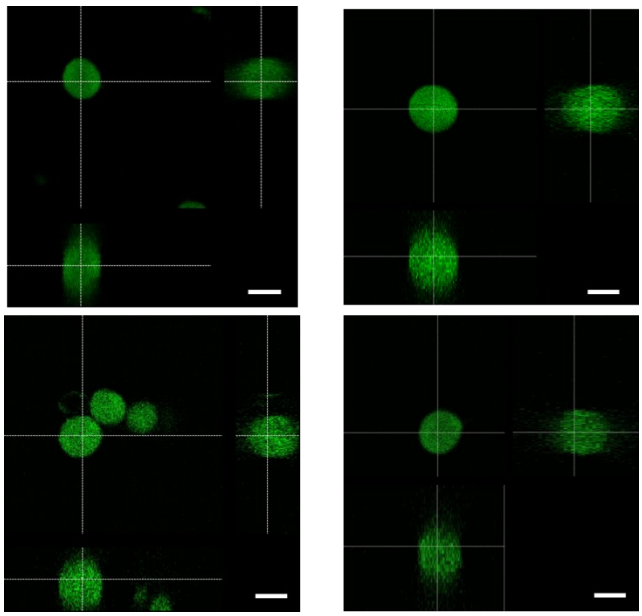

Figure S6. Series Z-scanning CLSM images of the microcapsules after being squeezed through the microchannel. Scale bar: 5 μm.

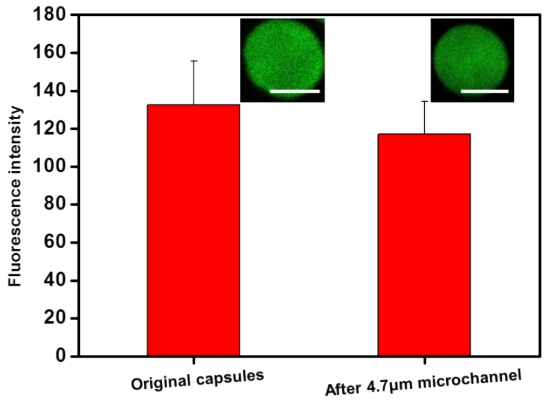

Figure S7. Mean fluorescence intensity from the interiors of original PU capsules, capsules after being squeezed through 4.7 μm microchannel. Insets show the corresponding typical fluorescence images; scale bar: 5 μm. The data were averaged from >50 capsules by measuring the gray value of green channel inside the capsules.