Supporting Information:

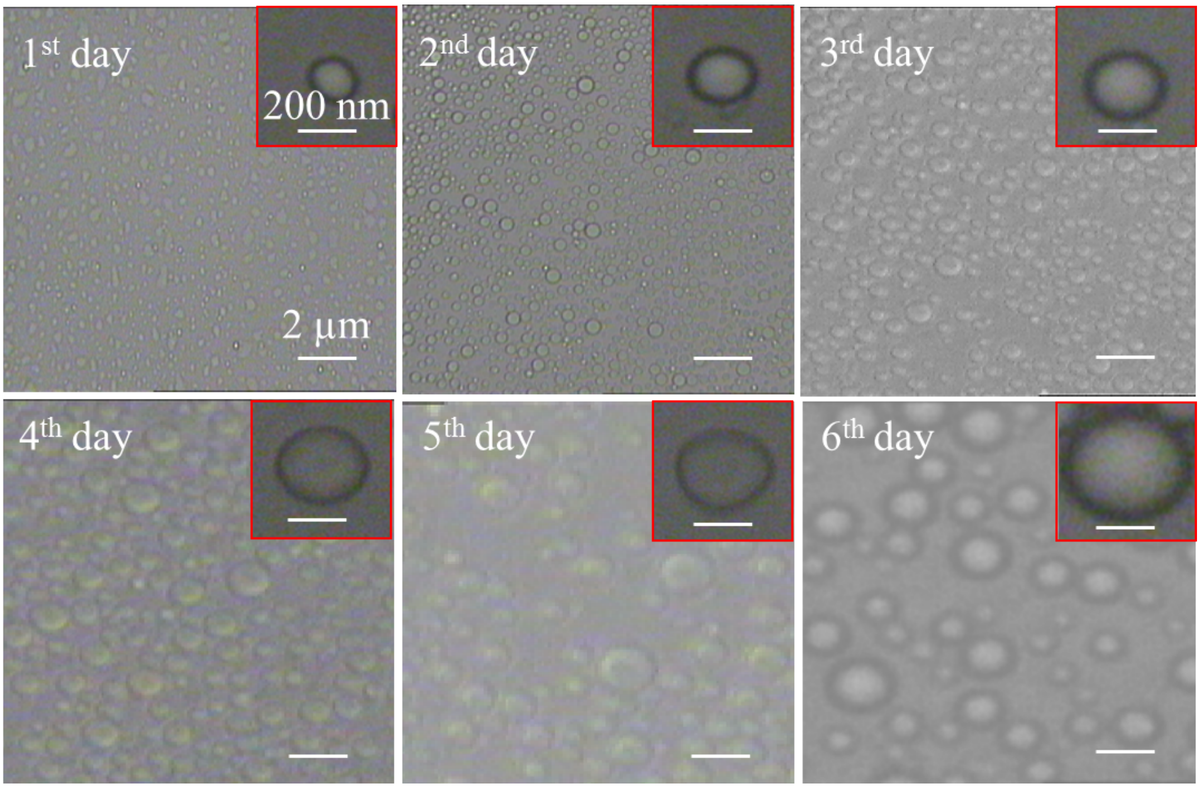

Fig.S1 Stability of cyclohexane-in-water nanoemulsion at room temperature. The size of oil droplets was analyzed using an fluorescence microscopy. The resulting emulsions were stable within 6 days at room temperature. The droplet sizes were in the range of 200~400 nm, and increased with the storage time.

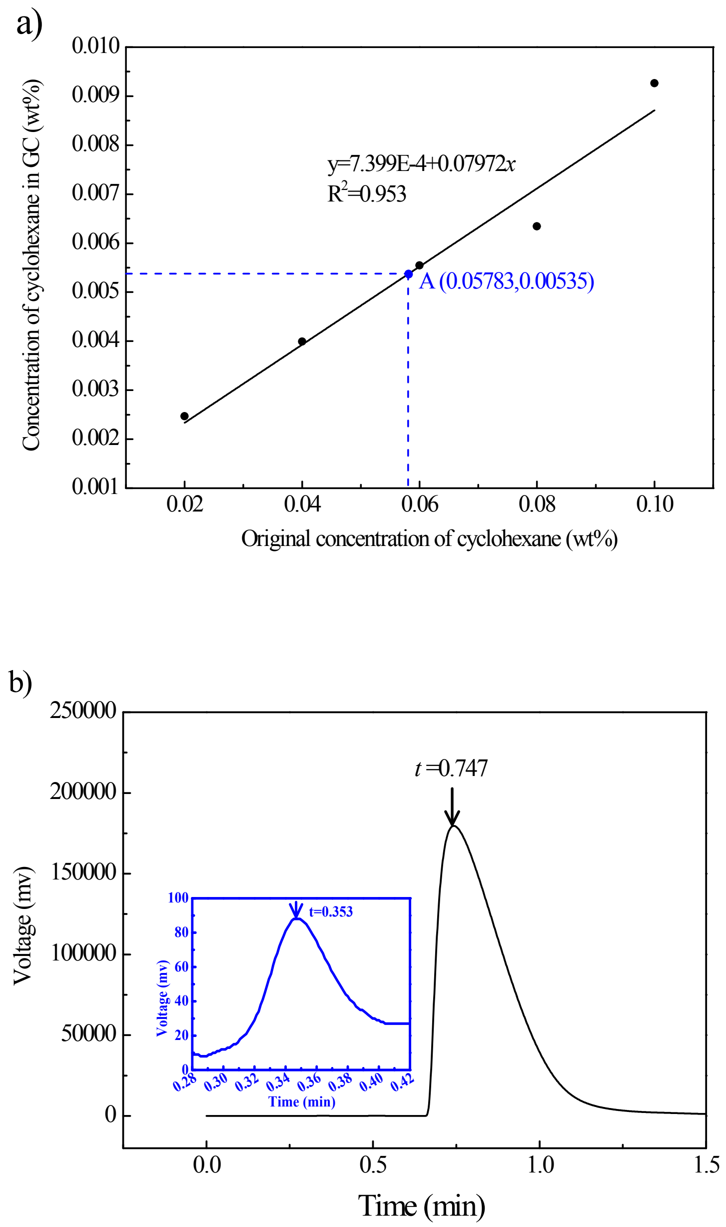

Fig.S2 Analysis of the oil concentration in the permeate using GC. a) The relationship betweenthe concentration of cyclohexane in GC and original concentration. The fitted regression line was used to analyze the concentration of cyclohexane in the permeate. As shown in Fig.S2, one datumhas been analyzed as an example. b) The GC spectrum of the permeate for separating cyclohexane-in-water nanoemulsion by the 112 nm-thick membrane.

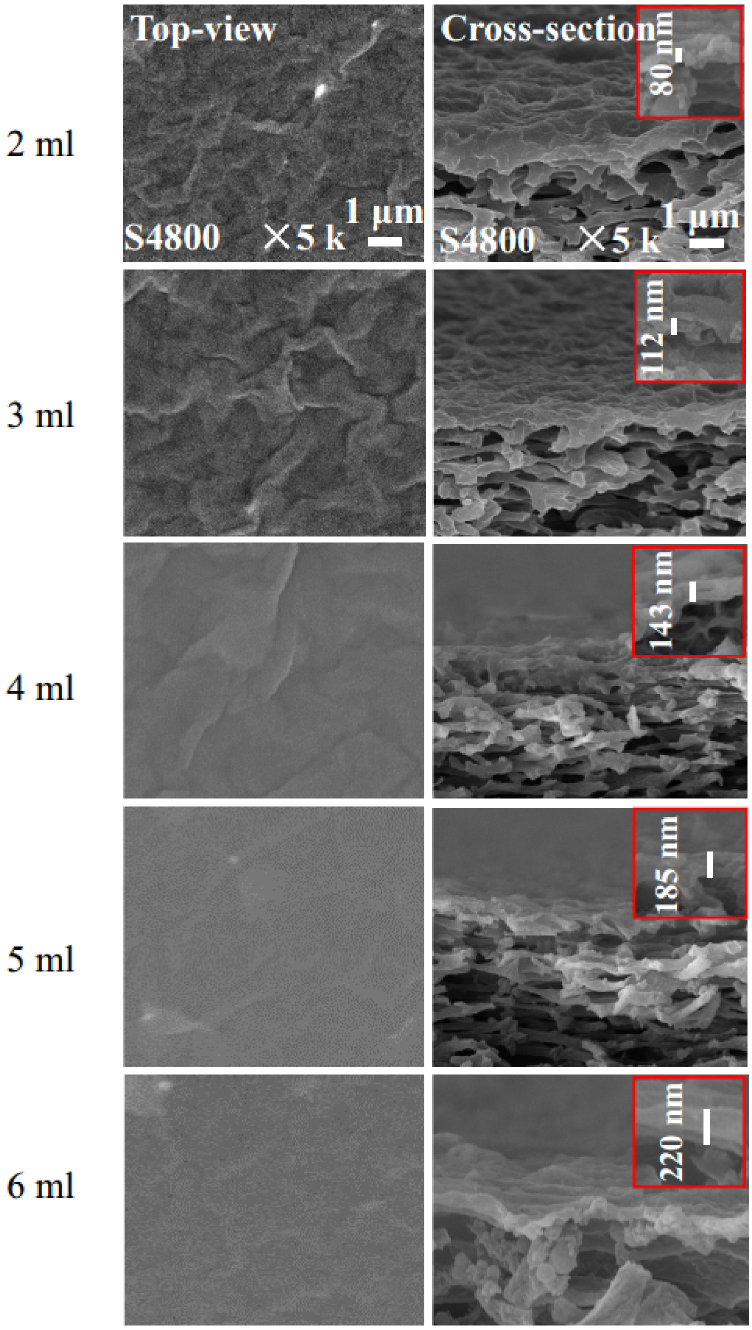

Fig.S3 SEM images of the cellulose nanosheet membranes with different thicknesses. The membrane thickness is in the range of 80~220 nm and increased with the filtered volume of the nanosheet solution, suggesting that the membrane thickness can be easily adjusted by varying the filtered volume of the nanosheet solution. Meanwhile, the membrane surface became smoother with increasing filtered volume of the nanosheet solution.