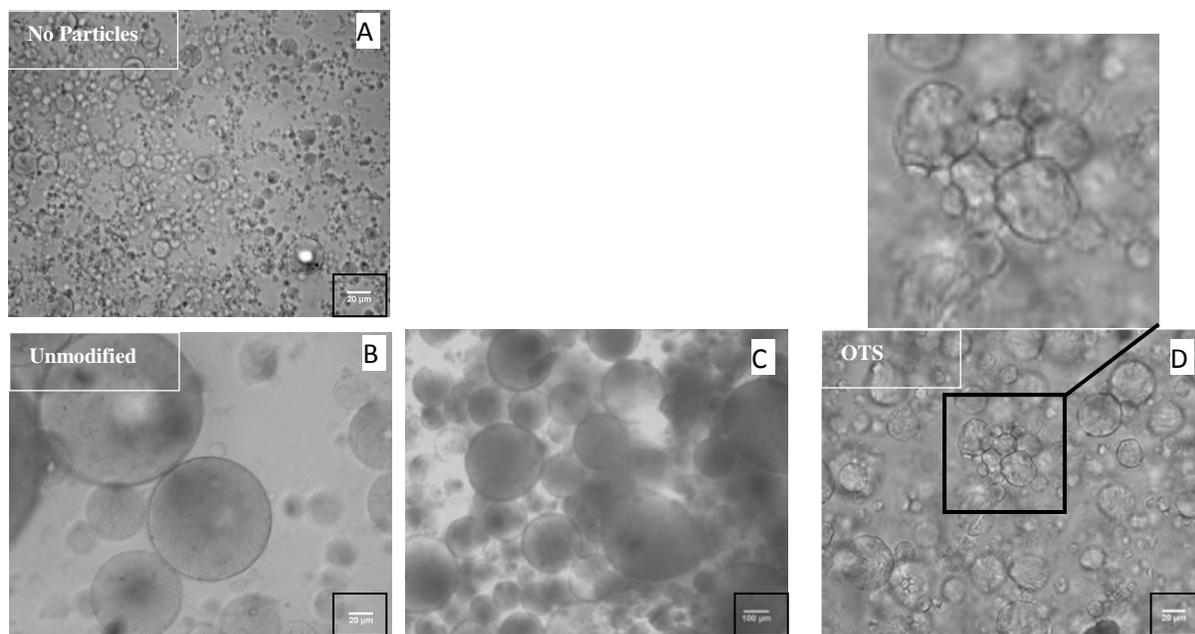
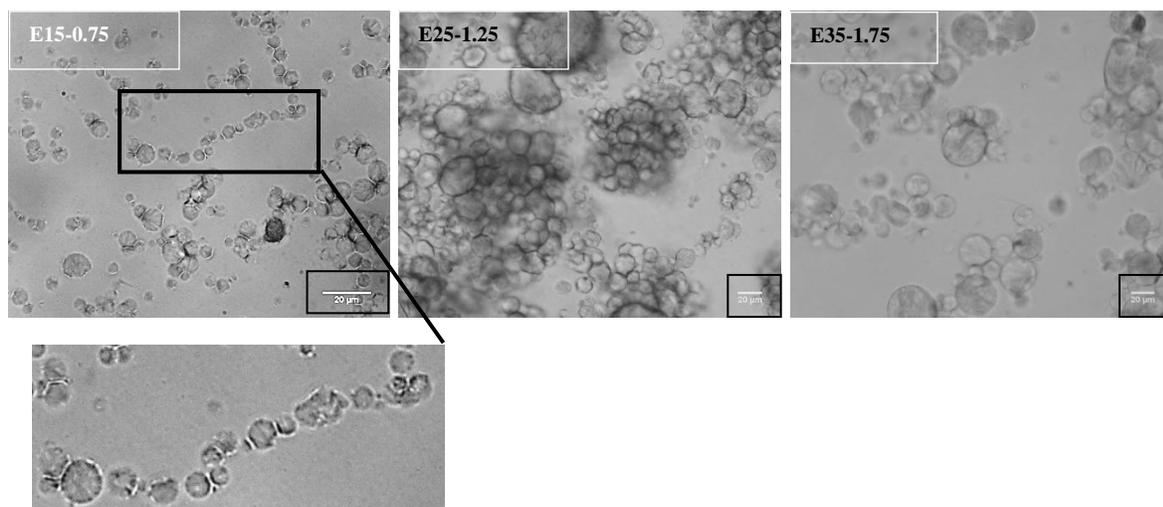


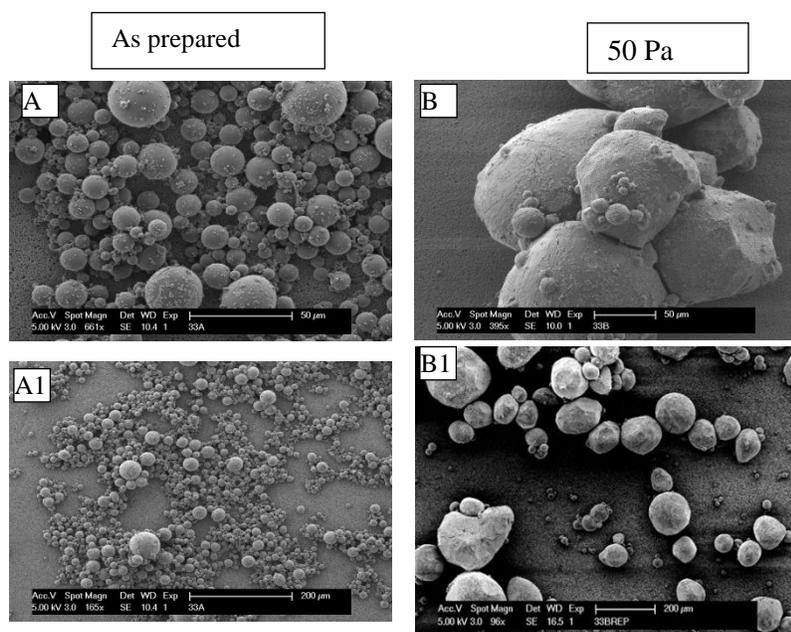
**Figure S1:** Shear history imposed upon the samples. The small amplitude oscillatory tests were done with 10% strain and in the frequency range of 100 to 0.1 rad/sec. Only the last frequency sweep test is discussed in this paper. The morphology was measured on samples quenched after the last frequency sweep test.



**Figure S2:** Comparison of the effect of particle wettability from optical images of samples prior to dissolving the PIB. (Scale bar in images is 20 μm, except for C it is 100 μm)



**Figure S3:** Effect of varying the continuous phase volume fraction as seen from optical images of samples prior to dissolving the PIB. These samples were spread in a thin layer in a petridish to improve imaging. (Scale bar in images is 20  $\mu\text{m}$ )



**Figure S4:** Comparison of the morphology of the E35-0.35 sample before any shearing (**A** and **A1**), and after shearing at 50 Pa (**B** and **B1**). The top row images are at higher magnification than bottom row images. (Scale bar in top row images is 50  $\mu\text{m}$  and scale bar in bottom row images is 200  $\mu\text{m}$ )