

Synthesis of Nano-Bowls with a Janus Template

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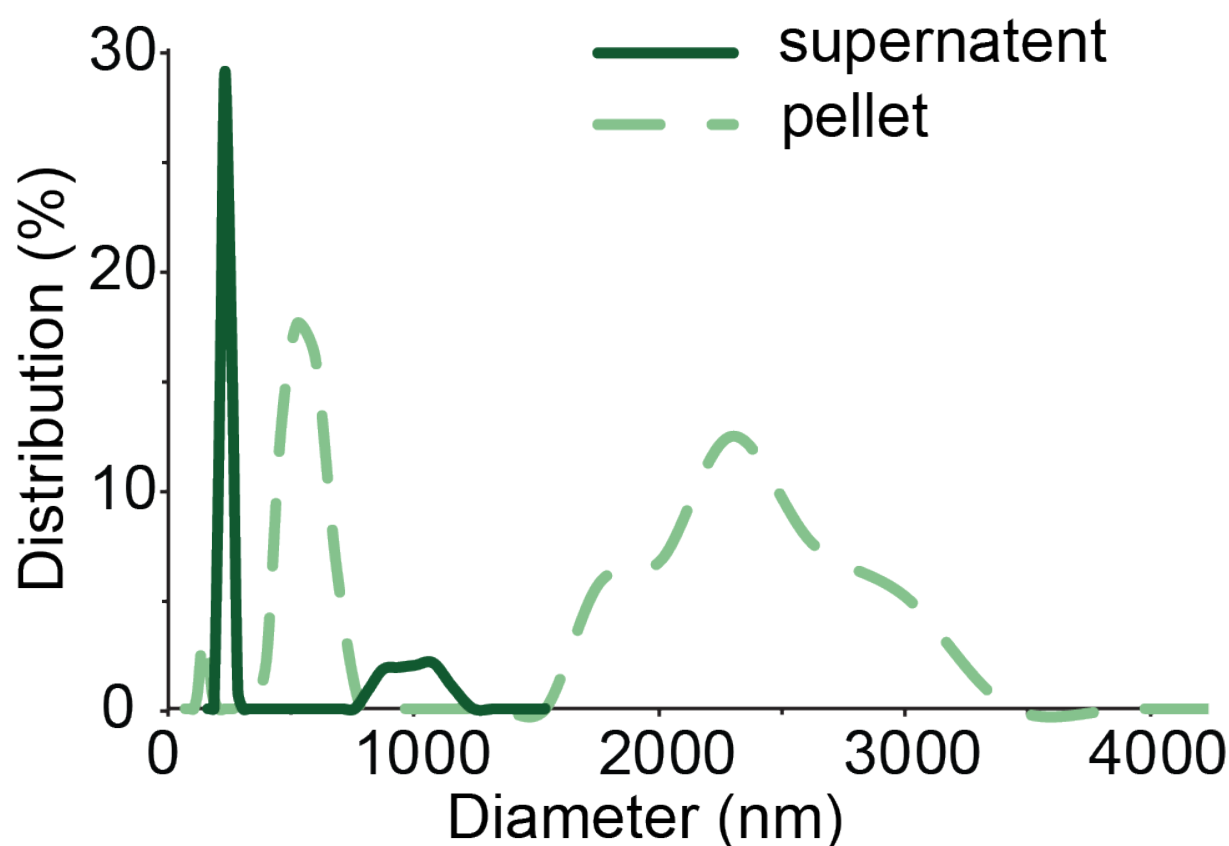


Figure S1. The particle size distribution of Janus templates found in the supernatant and the pellet of an Janus template reaction after slow centrifugation (500g, 5 minutes) are compared against each other. 60 mM TEOS Janus template sample reacted for 2 hr was used. Smaller well-formed Janus templates were concentrated in the supernatant while larger aggregate Janus templates were left behind in the pellet.

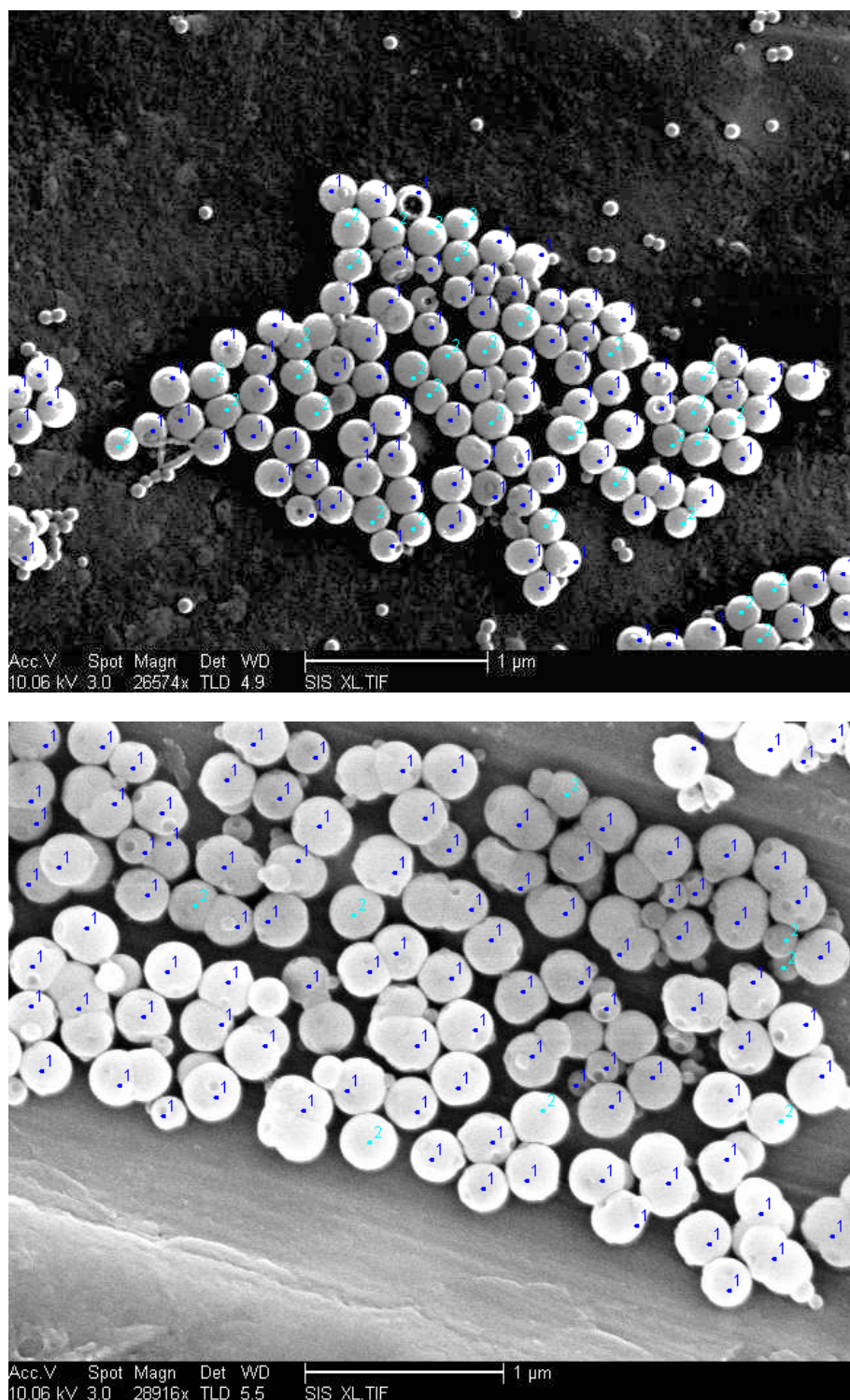


Figure S2: Wide field SEM images of 20 mM (bottom) and 80 mM (top) TEOS Janus template samples were used to estimate Janus template reaction yield. A blue “1” identify Janus templates; a green “2” identify non-Janus templates. The 20 mM sample resulted in 71% of 117 particles being Janus templates. The 80 mM sample showed 95% of 95 particles counted to be Janus templates. Uncounted particles are unincorporated polystyrene templates.

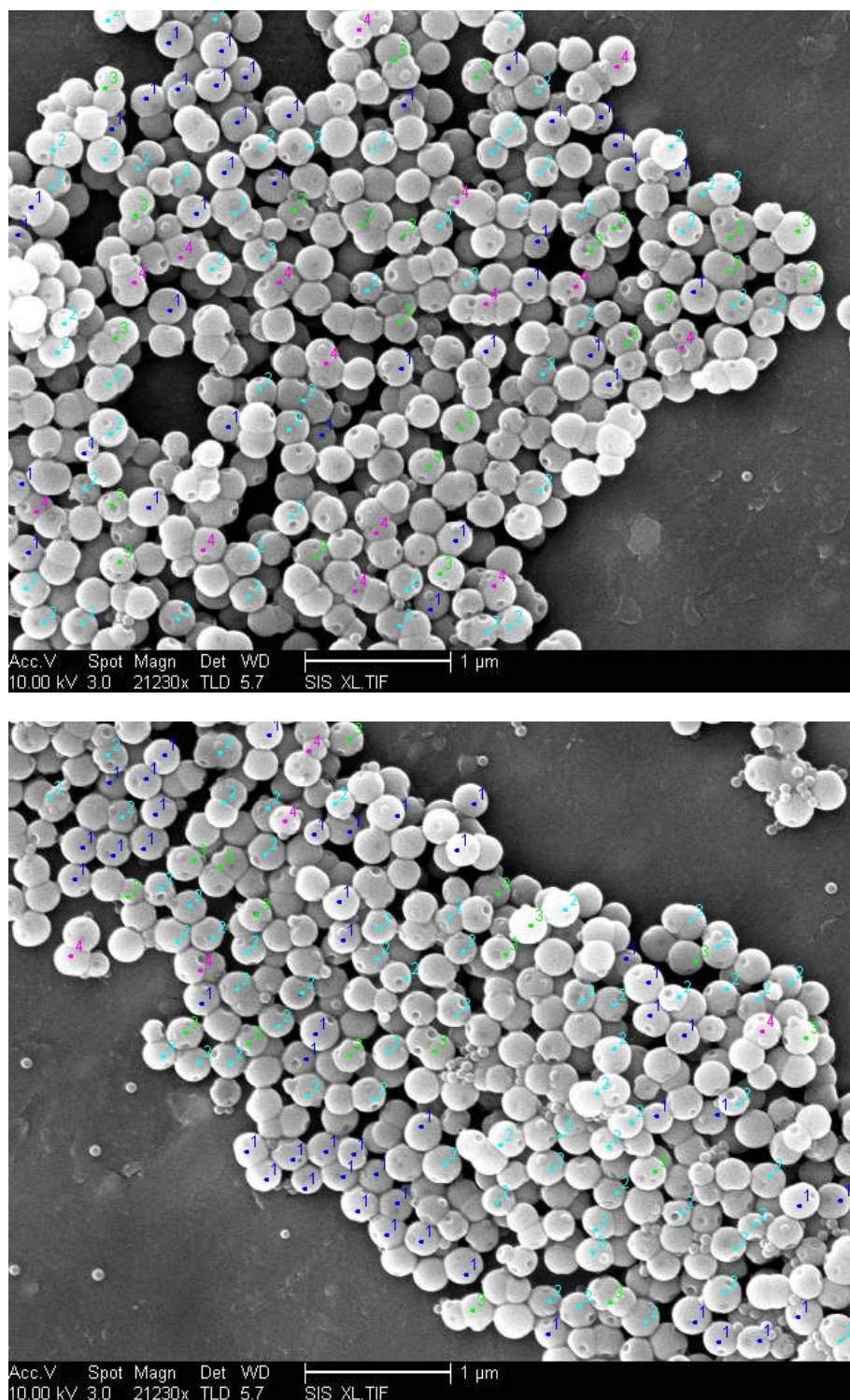


Figure S3 Using wide-field SEM images of 60 mM TEOS Janus templates, the number of polystyrene templates in one Janus template was tallied manually and a population breakdown was found. A total of 254 Janus templates were included in the survey.

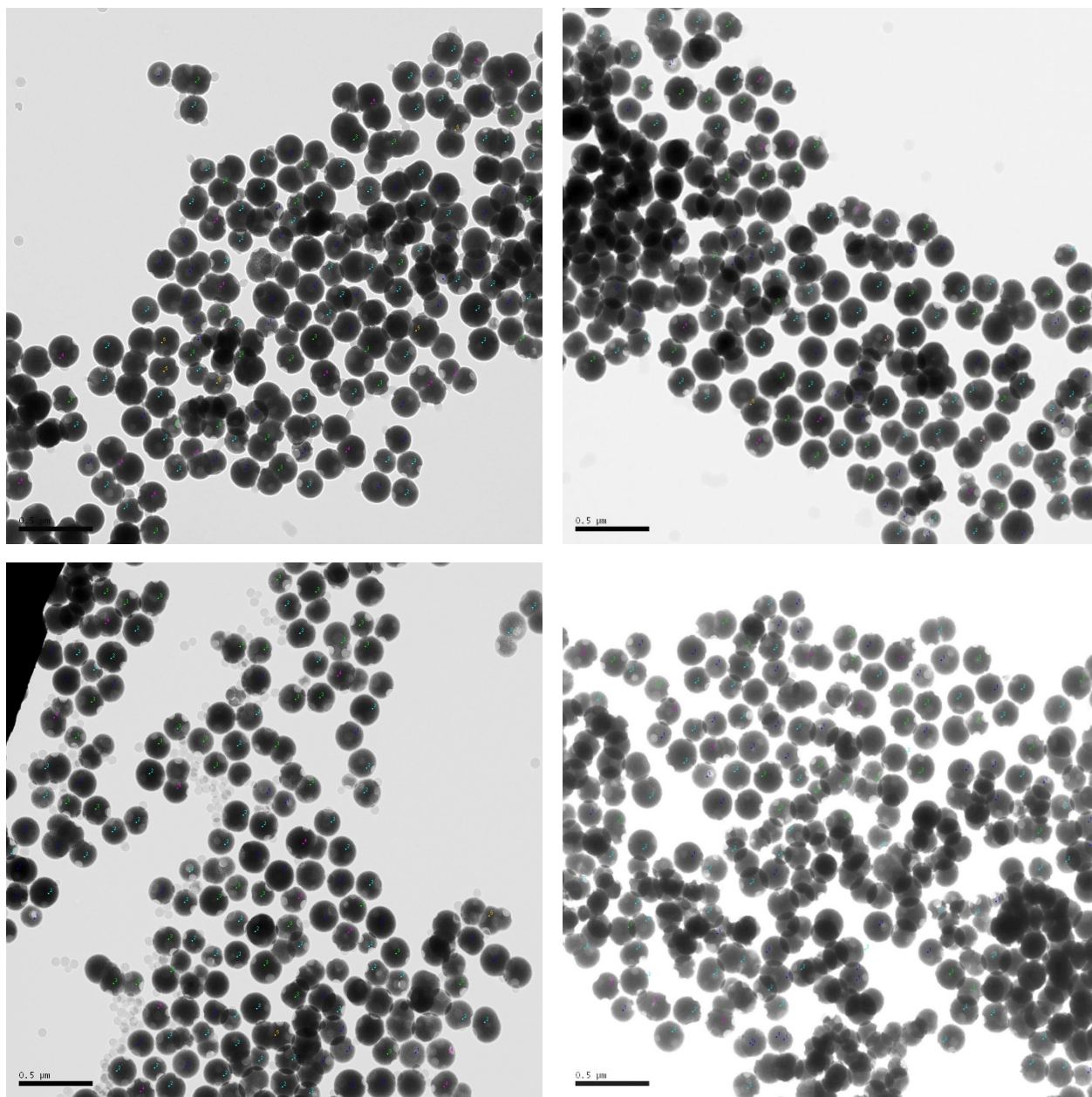


Figure S4 Using wide-field TEM images of 40 mM TEOS Janus templates, the number of polystyrene templates in one Janus template was tallied manually and a population breakdown was found. “1”, “2”, “3”, “4”, and “5” indicate the number of templates observable in the counted Janus templates. A total of 529 Janus templates were included in the count.

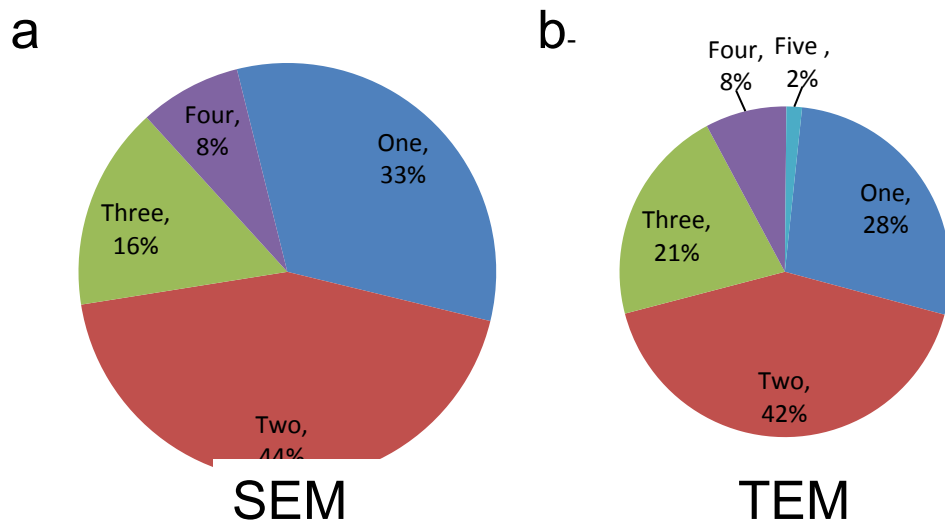


Figure S5 A pie chart shows the distribution of polystyrene cores embedded within the Janus templates as measured by a) SEM in figure S2 and b) TEM in figure S3. Both distributions regardless of imaging technique are similar. Single core Janus templates represented ~30% of the population, double core Janus templates were ~40% of the sample, and Janus templates with three or more cores were the remaining ~30%.