

# Monodisperse magnetic nanoparticle assemblies prepared at scale by competitive stabiliser desorption

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## Supplementary Information

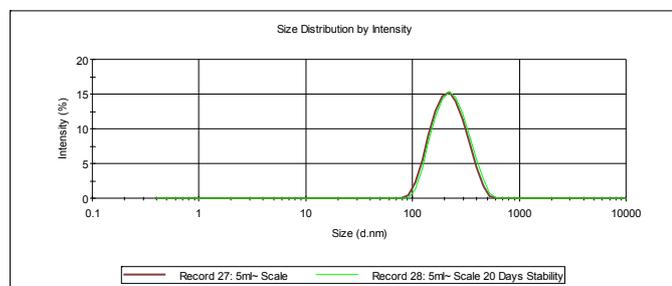


Figure s1. Long term stability of a typical NPC suspension in  $\text{CHCl}_3$  by DLS. Day 0 (-)  $d_{\text{hyd}}$  203 nm, PDI 0.107. Day 20 (-)  $d_{\text{hyd}}$  214 nm, PDI 0.110.

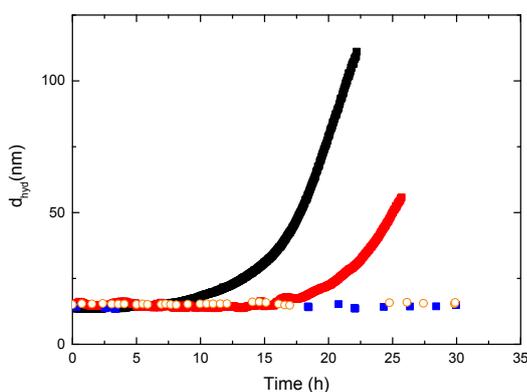
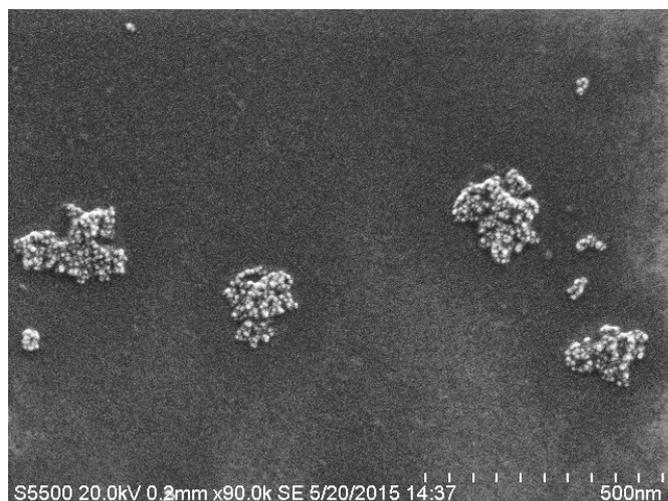
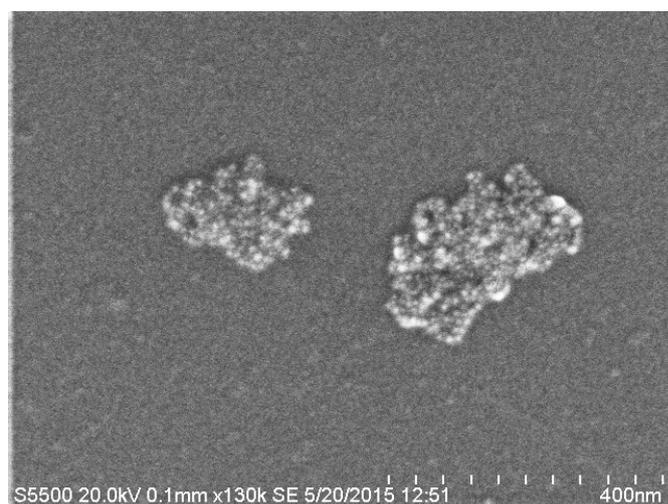
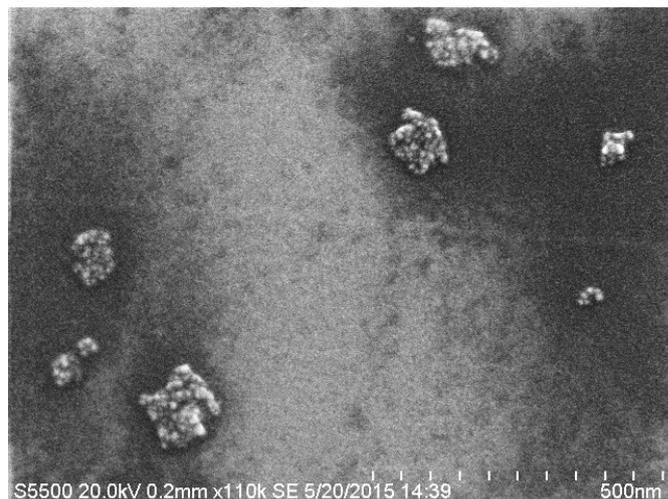


Figure s2. DLS data for NPC assembly; (■) placed over silica with 50  $\mu\text{L}$  MeOH added at  $t = 0$ ; (■) placed over silica at  $t = 0$  h, with 50  $\mu\text{L}$  MeOH added at  $t = 5$  h; (■) placed over silica (no MeOH); and (○) NP suspension with 50  $\mu\text{L}$  MeOH (no MeOH).



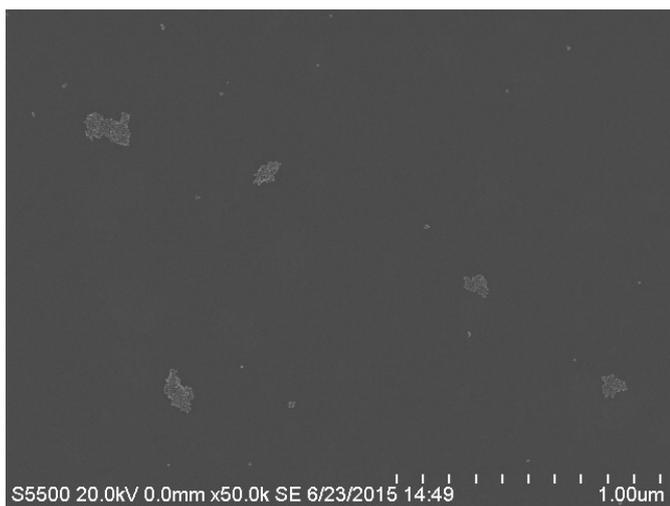
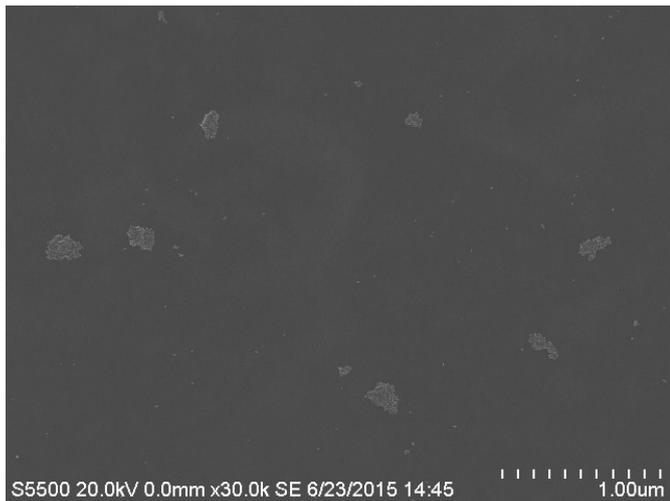


Figure s3. SE images of NPCs from an NPC suspension removed from the substrate at  $d_{\text{hyd}}$  98 nm. Dried onto standard grids at low NPC concentration.

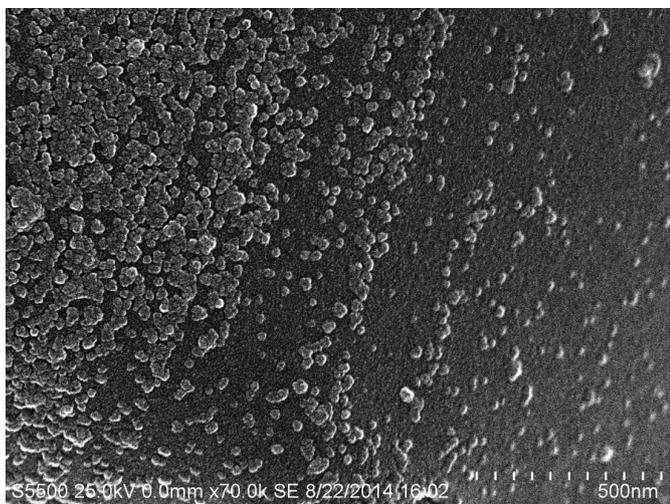


Figure s4. SE images of NPCs from an NPC suspension removed from the substrate at  $d_{\text{hyd}}$  70 nm, dried onto standard grids at high NPC concentration.

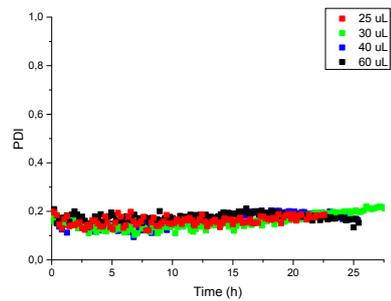


Figure s5. PDI values recorded during NP assembly for the experiments shown in Figure 3.

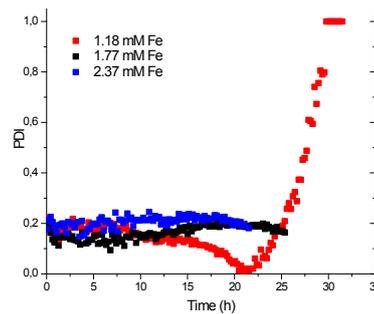


Figure s6. PDI values recorded during NP assembly for the experiments shown in Figure 4.