**Supporting information** 

## High Substrate Temperatures Induce Large 2D Self-Assembled Domains of Hydrophobic Cobalt Nanoparticles Onto Hydrophilic Silicon Substrates

25 °C a) 85 °C b) l um 181 °C C) d) 260 °C 1 µm 1 µm

**SPIN COATING** 

*Figure S1.* SEM images of self-assembled morphologies resulting from spin coating technique at different substrate temperatures: 25 °C (a), 85 °C (b), 181 °C (c) and 260 °C (d). The right panels depict another representative zone of the same sample.



## **DROP CASTING**

*Figure S2*. SEM images of self-assembled morphologies resulting from drop casting technique at different substrate temperatures: 25 °C (a), 100 °C (b) and 150 °C (c). The right panels depict another representative zone of the same sample.



*Figure S3.* Low magnification SEM images of self-assembled morphologies resulted from spin coating deposition technique at substrate temperatures of 45, 68, 85, 180, and 260 °C.



*Figure S4.* Low magnification SEM images of self-assembled morphologies resulted from drop casting deposition technique at substrate temperatures of 25, 100, and 150 °C.