

## Supplementary Information

# Synthesis, Thin-Film Self-Assembly, and Pyrolysis of Ruthenium-containing Polyferrocenylsilane Block Copolymers

Huda Nasser Al-Kharusi, Lipeng Wu, George Whittell, Robert Harniman and Ian Manners\*

School of Chemistry, University of Bristol, BS8 1TS, U.K.

E-mail: [ian.manners@bristol.ac.uk](mailto:ian.manners@bristol.ac.uk)

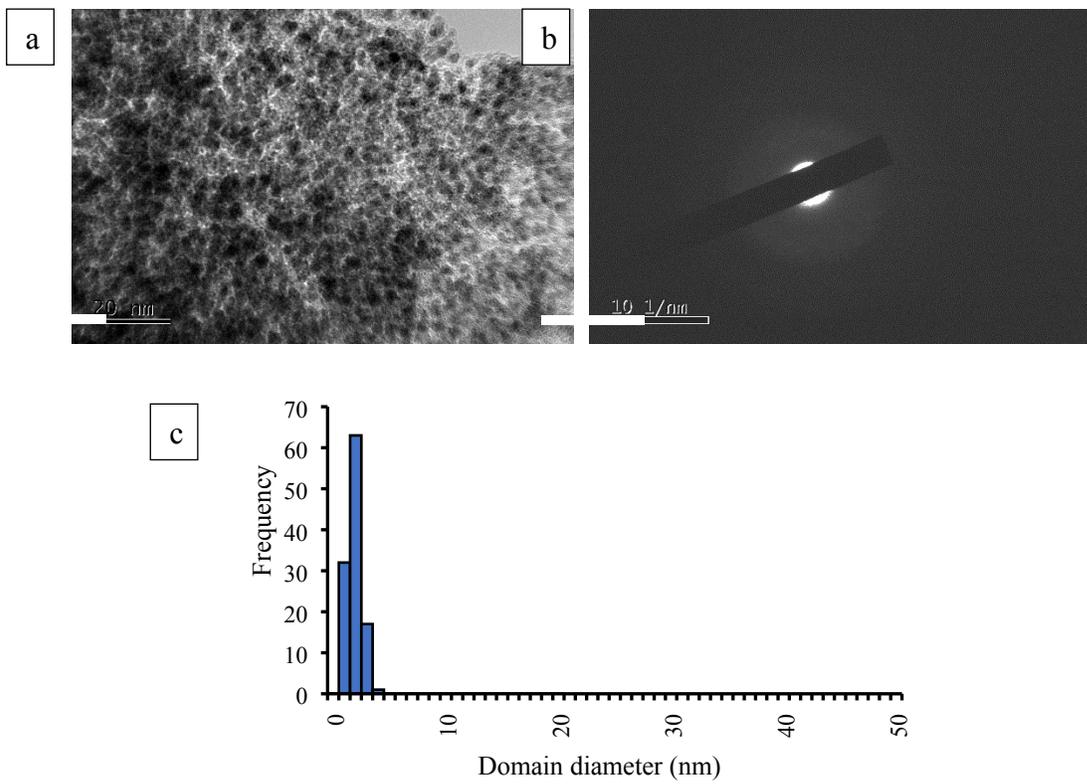


Figure S1: Characterisation of sample **9B<sub>500-2h</sub>** (a) High Resolution TEM image; (b) SAED pattern and (c) diameter distribution of NPs in (a).

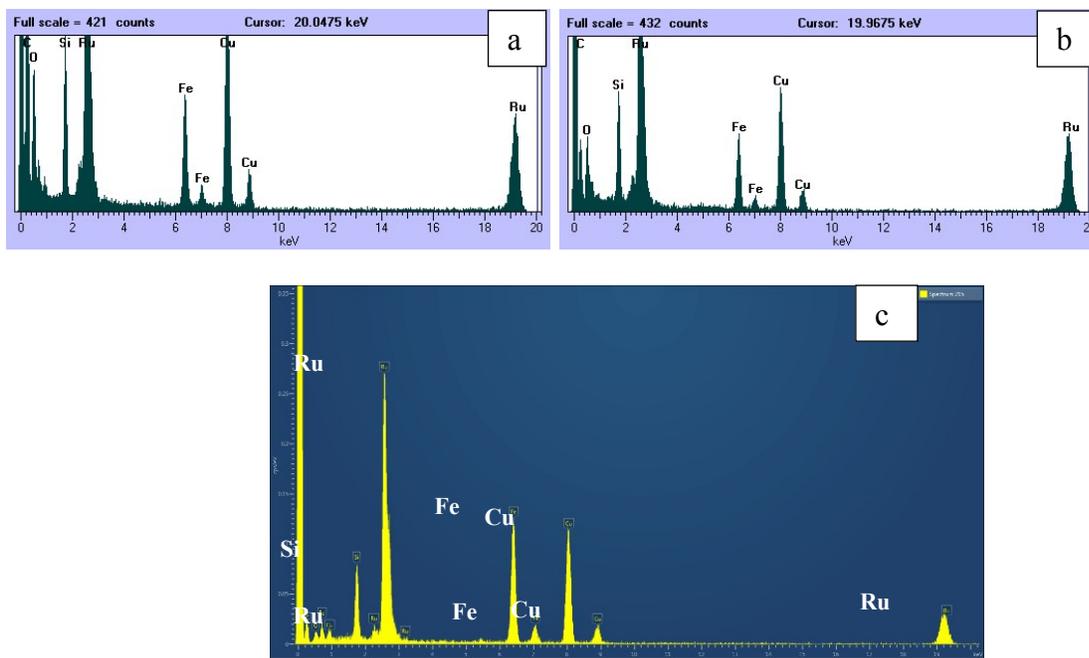


Figure S2: EDX analysis plots for samples: (a) 9A<sub>500-2h</sub>, (b) 9A<sub>800-2h</sub> and (c) 9B<sub>800-2h</sub> on a Cu TEM grid.

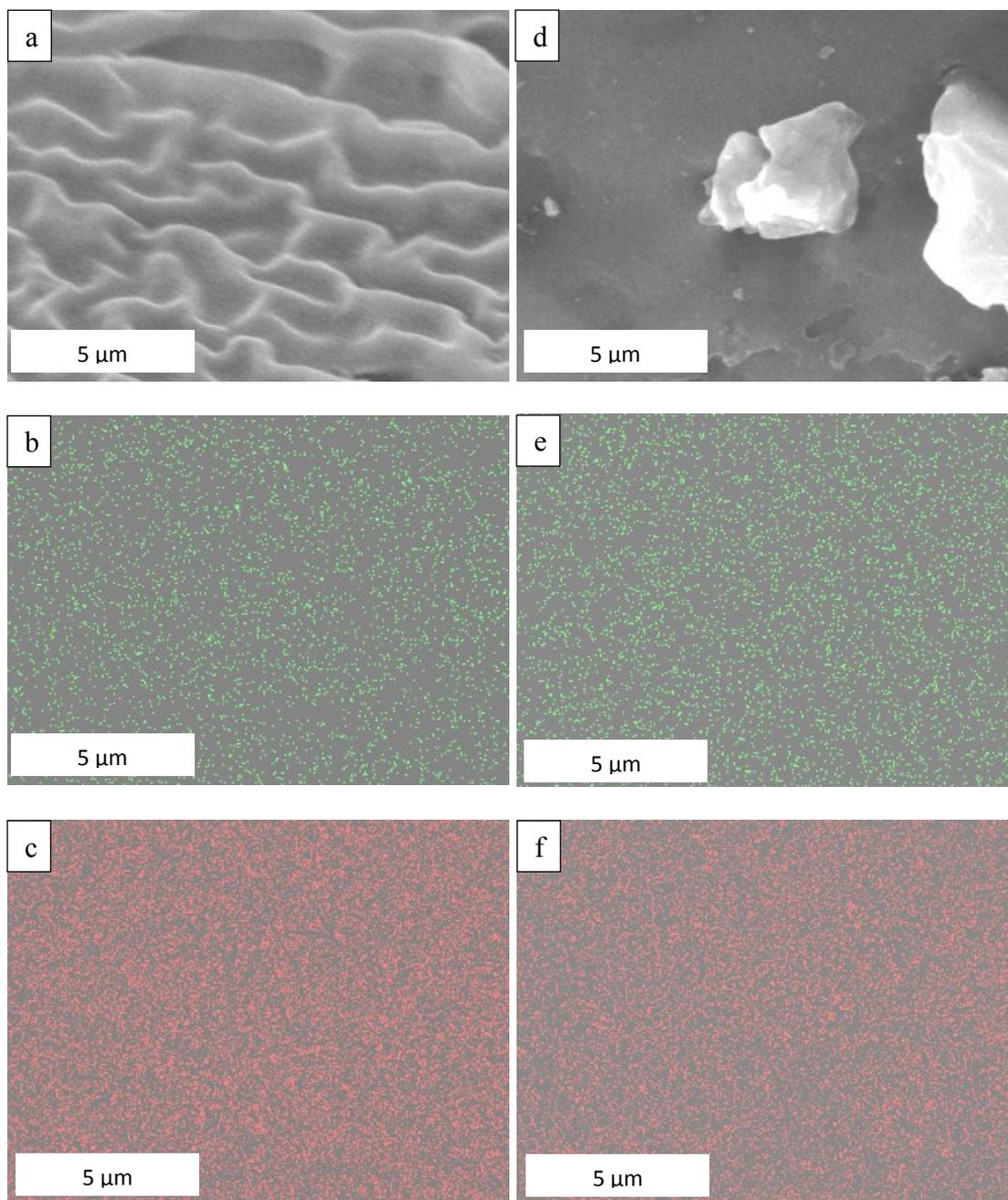


Figure S3: (a) SEM image of sample **9A**<sub>800-2h</sub>; (b) EDX mapping of Fe; (c) EDX mapping of Ru. (d) SEM image of sample **9B**<sub>800-2h</sub>; (e) EDX mapping of Fe; (f) EDX mapping of Ru.

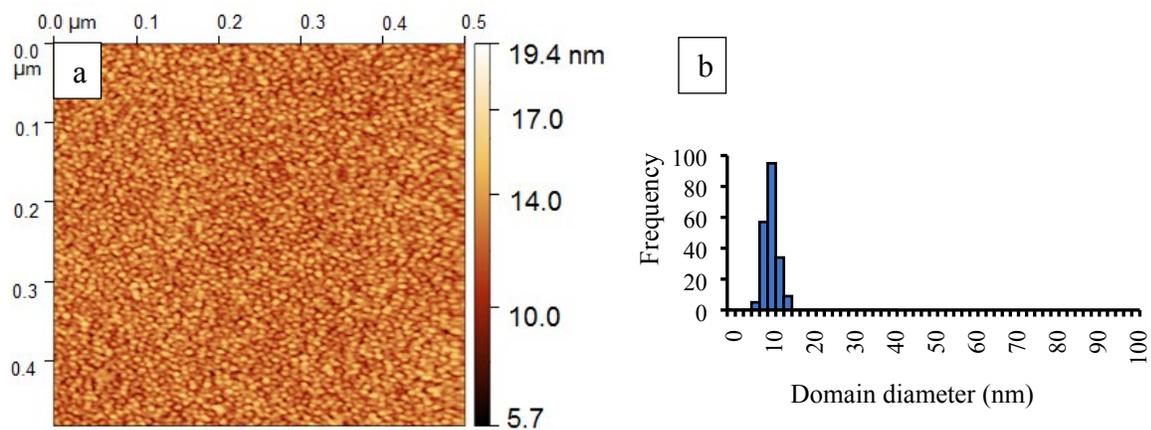


Figure S4: AFM image of thin film prepared by spin coating of 2 wt% of **9A** solution in toluene, followed by annealing at 120 °C for 24 h and plasma etching for 30 s; (b) diameter distribution histogram of 200 domains in (a).

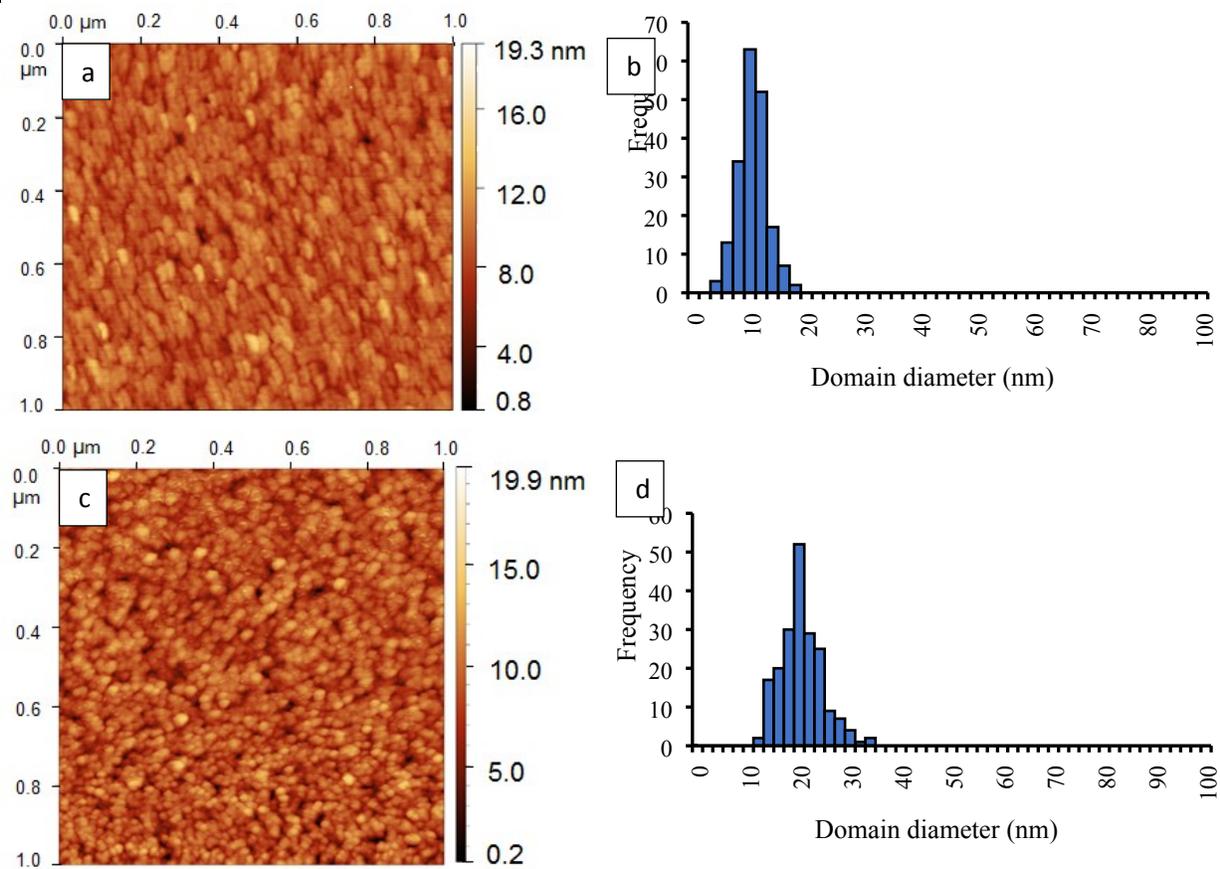


Figure S5: (a,c) AFM images of thin film prepared by spin coating a 2 wt% **9A** solution in toluene, and annealed thermally at 120 °C for 24 h prior to pyrolysis for 2 h at (a) 500 °C, (c) 800 °C; (b) diameter distribution histogram for 200 domains in (a); (d) diameter distribution histogram for 200 domains in (c).