

ELECTRONIC SUPPORTING INFORMATION

High quality nano-patterned thin films of the coordination compound {Fe(pyrazine)[Pt(CN)₄] deposited layer-by-layer

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Figure S1. 2D and 3D AFM images and height profile of a continuous $\{\text{Fe}(\text{pyrazine})[\text{Pt}(\text{CN})_4]\}$ layer following 4 deposition cycles carried out at **room temperature** (reagents concentration = 50 mM, dipping time = 1 min).

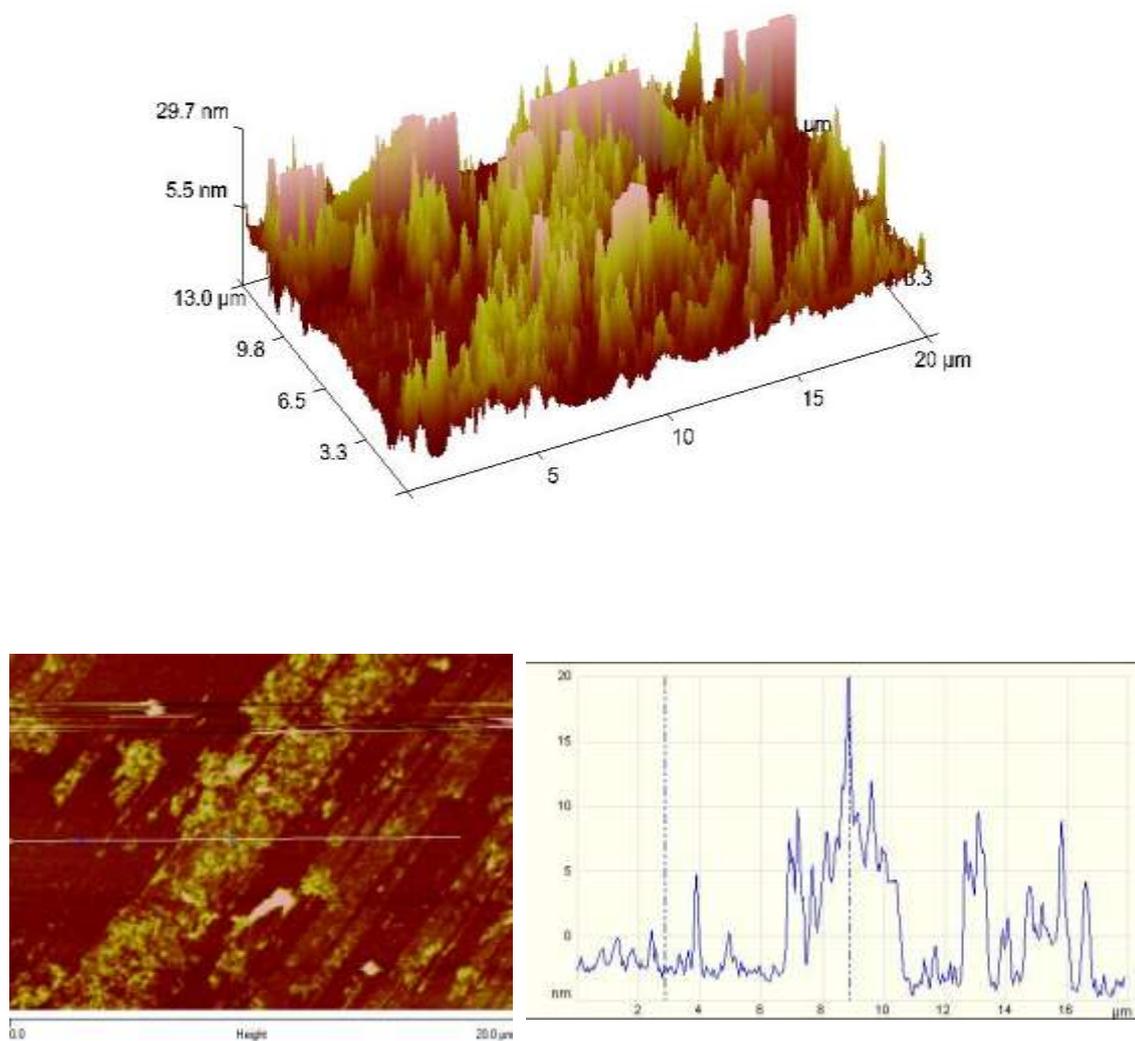


Figure S2. AFM image of a continuous $\{\text{Fe}(\text{pyrazine})[\text{Pt}(\text{CN})_4]\}$ layer following 4 deposition cycles carried out at $-78\text{ }^\circ\text{C}$ (reagents concentration = 50 mM, dipping time = 1 min).

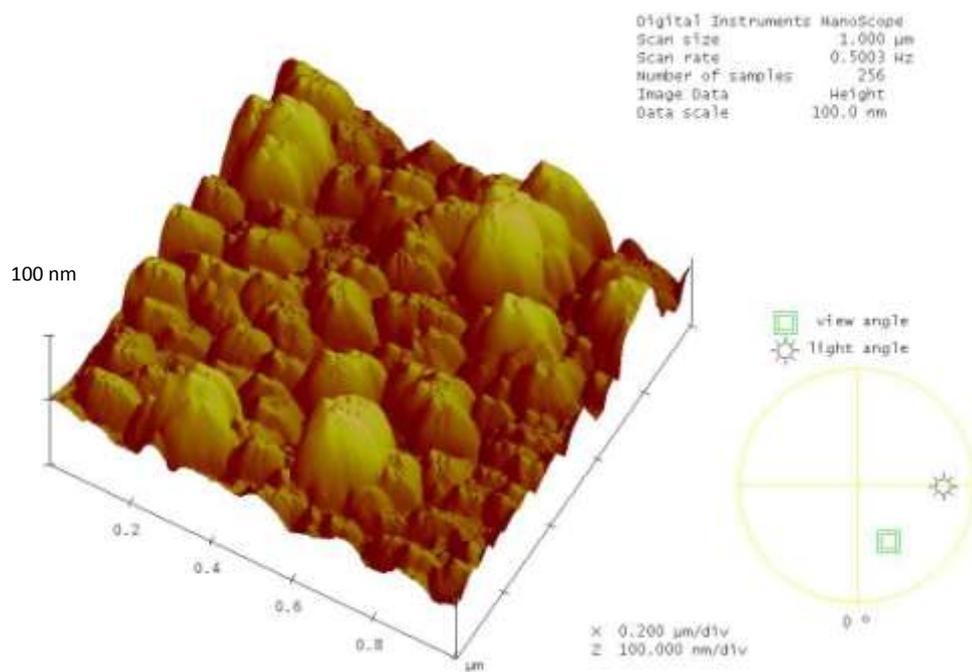
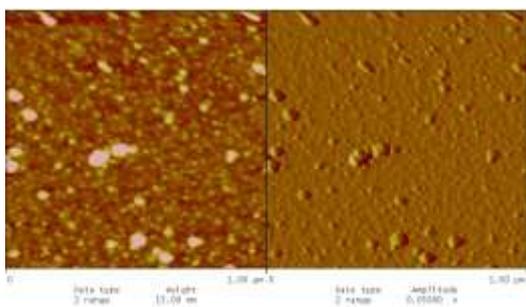


Figure S3. AFM images comparing the surface topography of two continuous {Fe(pyrazine)[Pt(CN)₄]} films following 5 deposition cycles with either K₂[PtCN₄] (a) or (TBA)₂[PtCN₄] (TBA = tetrabutyl ammonium) (b) as a starting platinate salt (experiment realized at -78°C with reagents concentration = 5 mM, dipping time = 8 hours). The measured roughness on the whole image was 1.1 and 5 nm using the potassium and the tetrabutyl ammonium derivative, respectively.

a)



b)

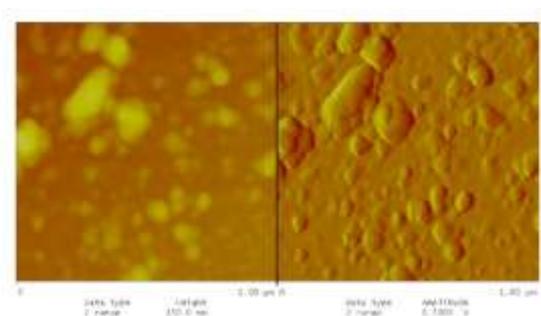


Figure S4. Selected typical AFM images ($1 \times 1 \mu\text{m}^2$) of the optimized deposition of a thin film of the $\{\text{Fe}(\text{pyrazine})[\text{Pt}(\text{CN})_4]\}$ complex on the disulfide-functionalised gold surface following a) 5, b) 10 and c) 15 deposition cycles.

