## **Supplementary Information**

## The morphology and structure of vanadyl phthalocyanine thin films on lithium niobate single crystals

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The roughness values (RMS roughness) described in the text of the paper are calculated using the Asylum Research MFP-3D software. The reported values have been referenced to equal surface area and calculated using the following equation:

$$R_q = \sqrt{\frac{1}{L}\int_0^L |Z^2(x)|} dx$$



**Figure S1**- AFM topography images of blank lithium niobate surfaces with and without annealing.



**Figure S2**- AFM topography image of annealed (0001) lithium niobate surface. The black line corresponds to the cross-section height profile.



**Figure S3**- AFM topography image of (a) 50nm VOPc on unannealed (0001) lithium niobate and (b) 50nm VOPc on annealed (0001) lithium niobate



**Figure S4**- Enlarged XRD plot of Figure 3 showing diffraction from 50nm thick film of VOPc on various lithium niobate surfaces.