

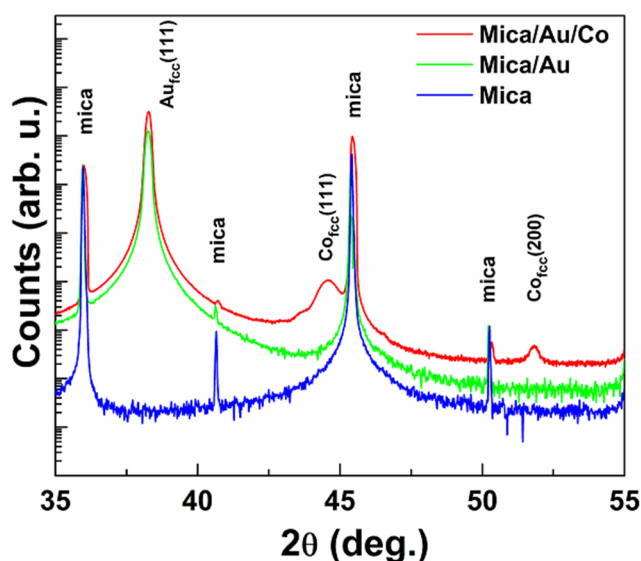
## Electronic Supplementary material for Robust ferroelectric properties of organic Croconic Acid films grown on spintronically relevant substrates

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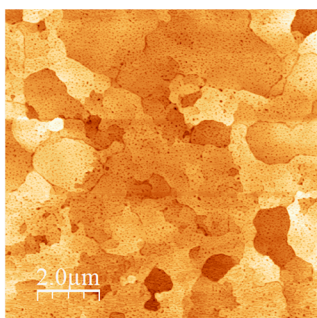
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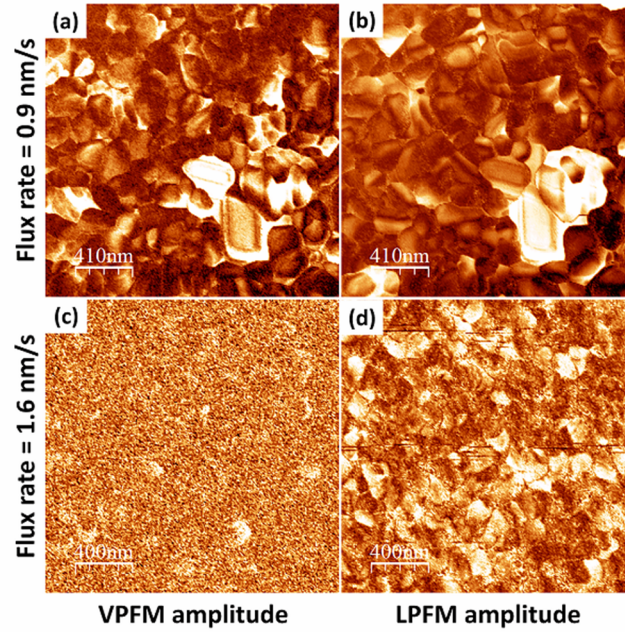
### Supplementary figures:



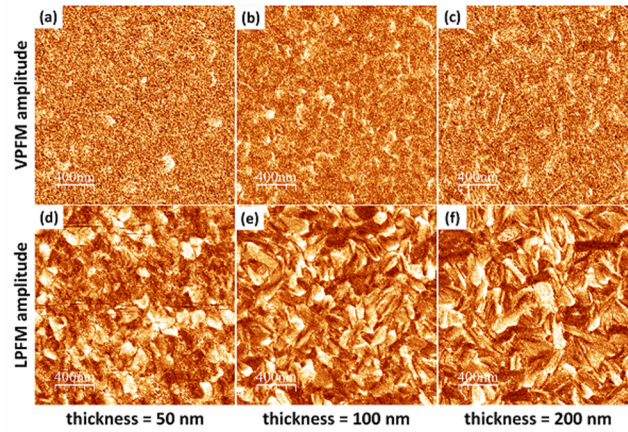
**Figure S1:** XRD of mica (blue), mica//Au (black) and mica//Au/Co (red) surfaces.



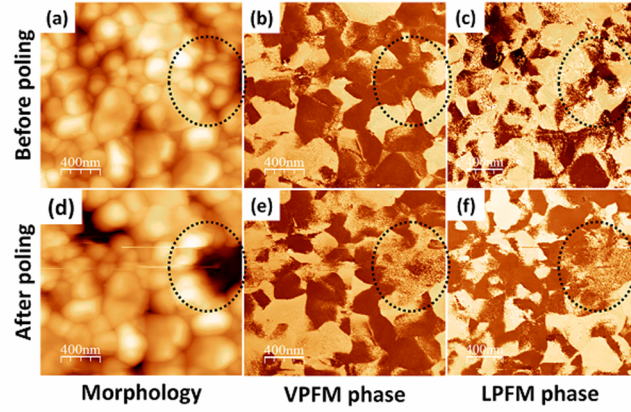
**Figure S2:** Surface morphology of mica/Au (150 nm) substrate showing micrometer sized flat terraces.



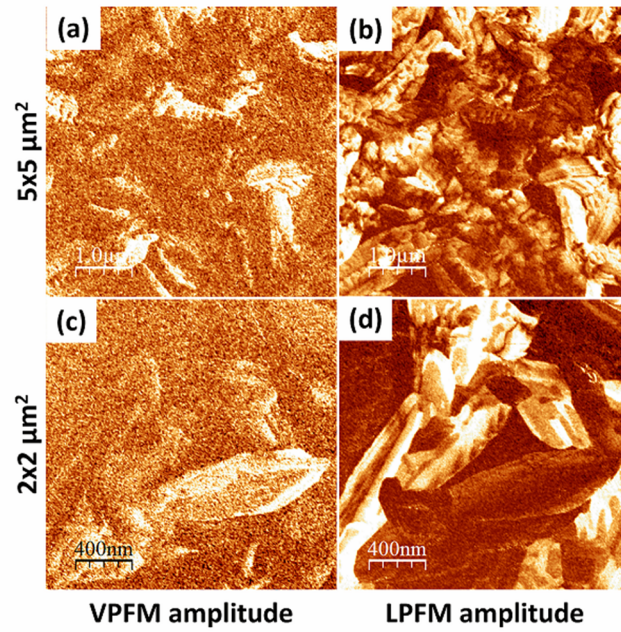
**Figure S3:** Flux rate dependence of PFM amplitudes for Au//CA (50nm) film, corresponding to figure 1 in the main text.



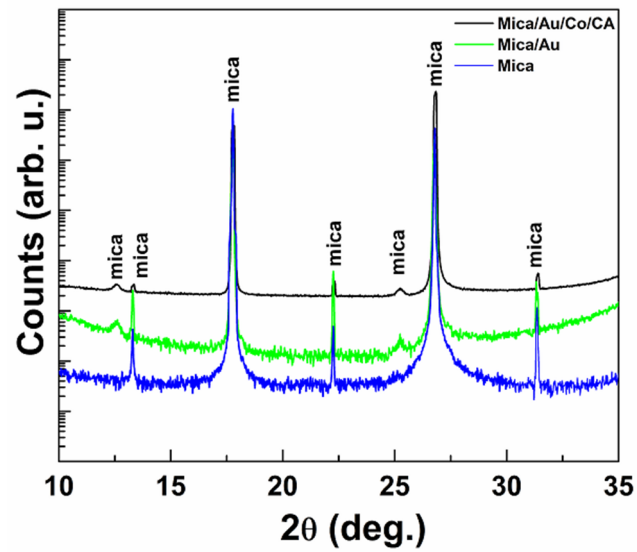
**Figure S4:** Thickness dependence of PFM amplitudes for a growth rate of 1.6nm/min on Au//CA, corresponding to figure 2 in the main text.



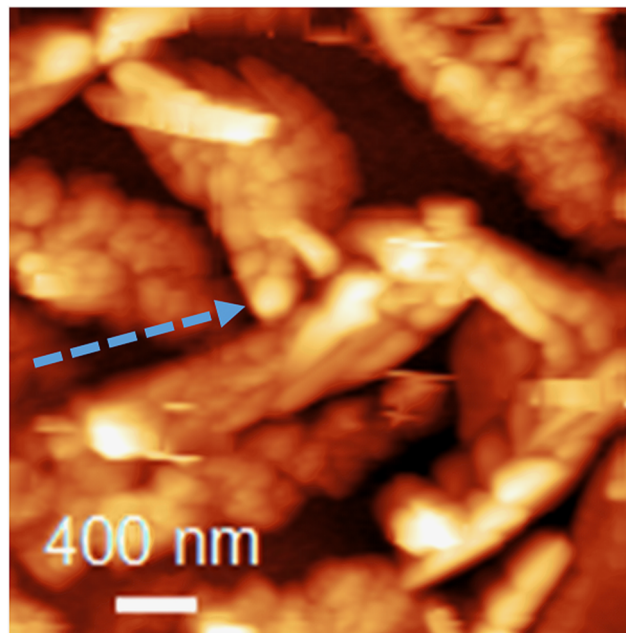
**Figure S5:** Impact of poling bias on the morphology of Au//CA (50 nm) sample.



**Figure S6:** PFM amplitudes of Au//Co/CA (50 nm) sample, corresponding to figure 4 in the main text.



**Figure S7:** XRD of mica (blue), mica//Au (green) and mica//Au/Co/CA (black) surfaces. Densely populated peaks coming from the mica substrate hinders the observation of any crystalline peak coming from the CA layer.



**Figure S8:** Surface morphology of the grain for which switching is shown in figure 5 in the main text.