

Electronic Supplementary Information for:

From nanodroplets to continuous films: How the morphology of polyelectrolyte multilayers depends on the dielectric permittivity and the surface charge of the supporting substrate

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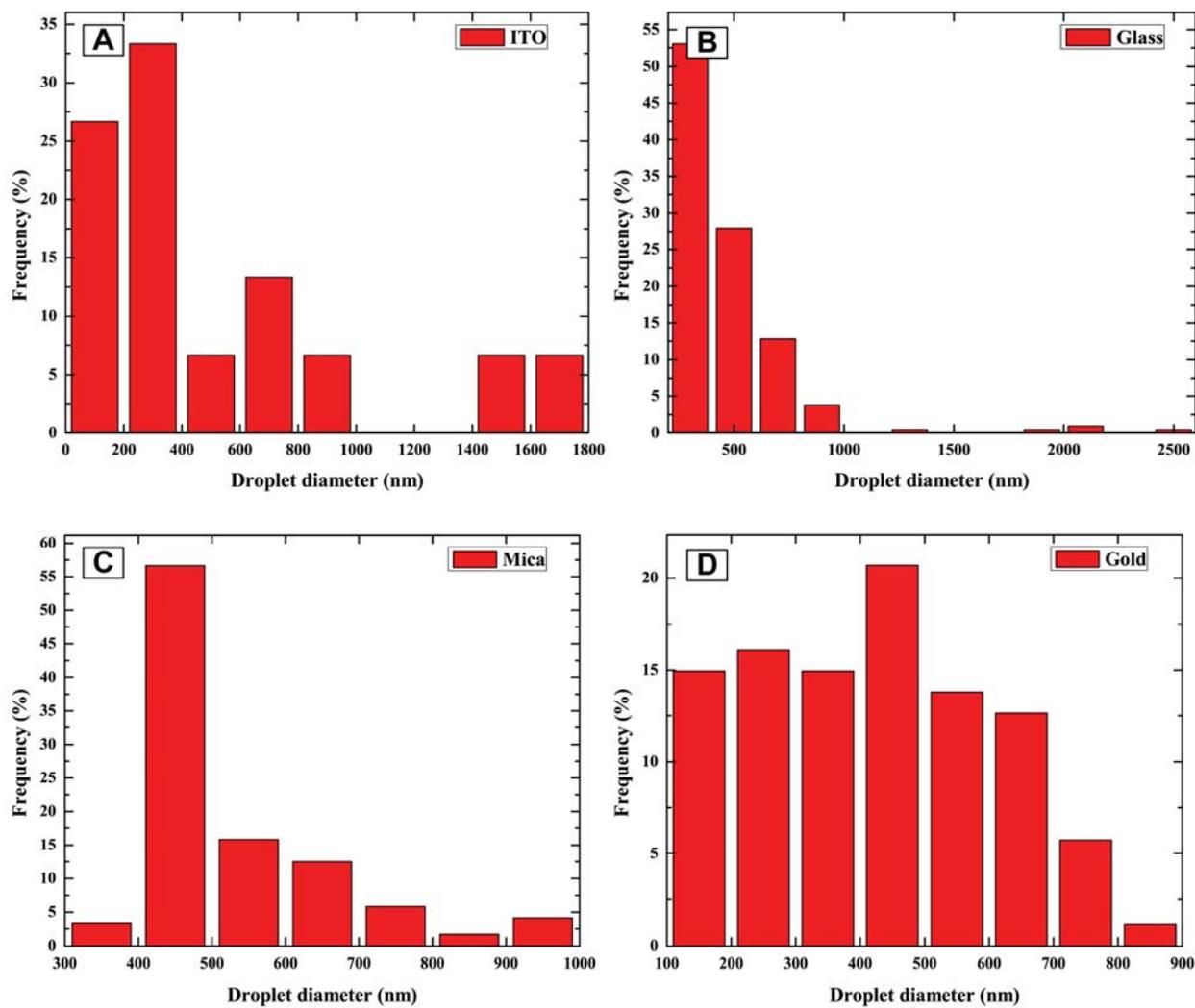


Figure S-1. Statistical distribution of droplet diameters for (PLL/HA)₆ multilayers adsorbed on ITO (A), glass (B), mica (C) and gold (D).

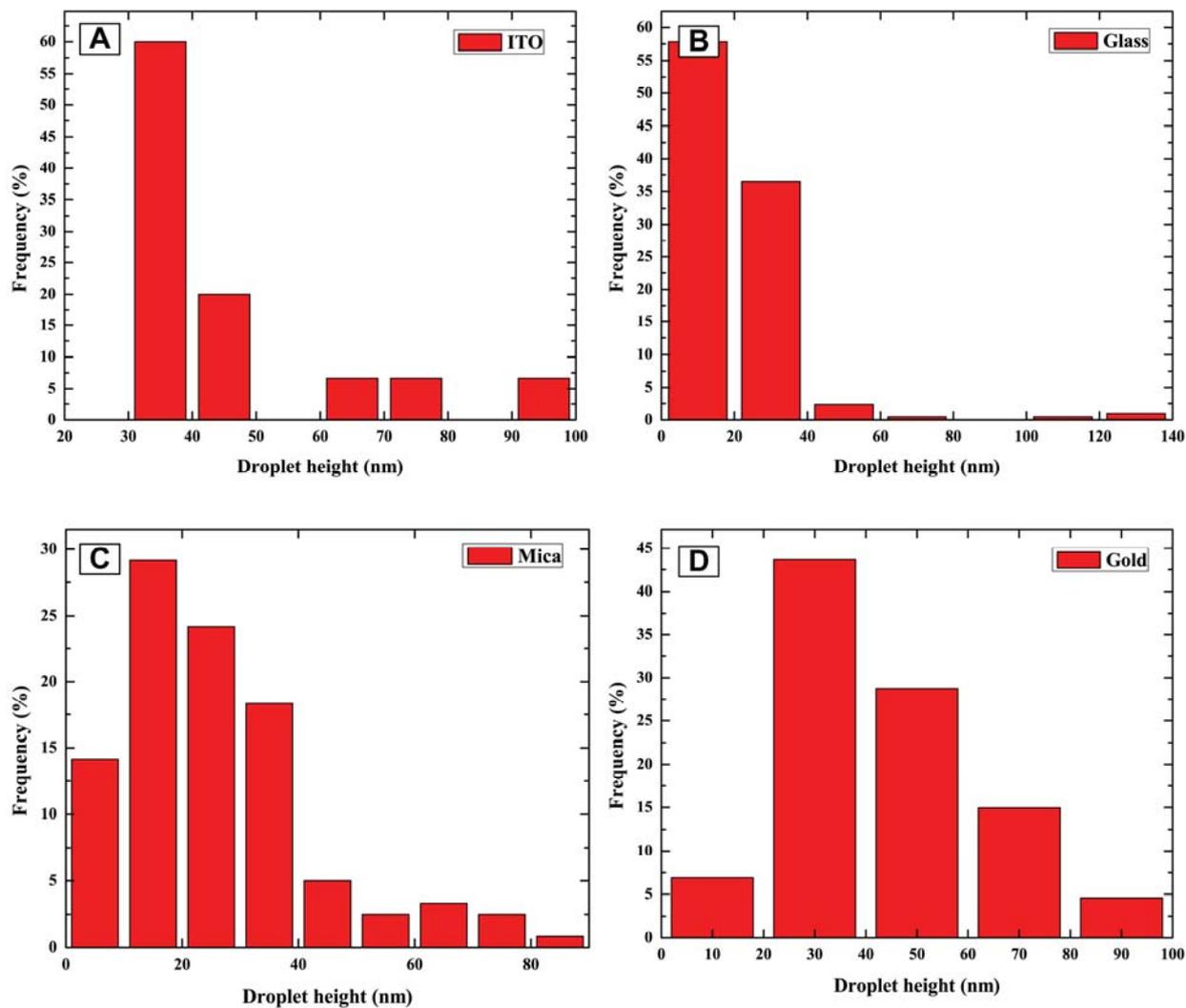


Figure S-2. Statistical distribution of droplet heights for (PLL/HA)₆ multilayers adsorbed on ITO (A), glass (B), mica (C) and gold (D).

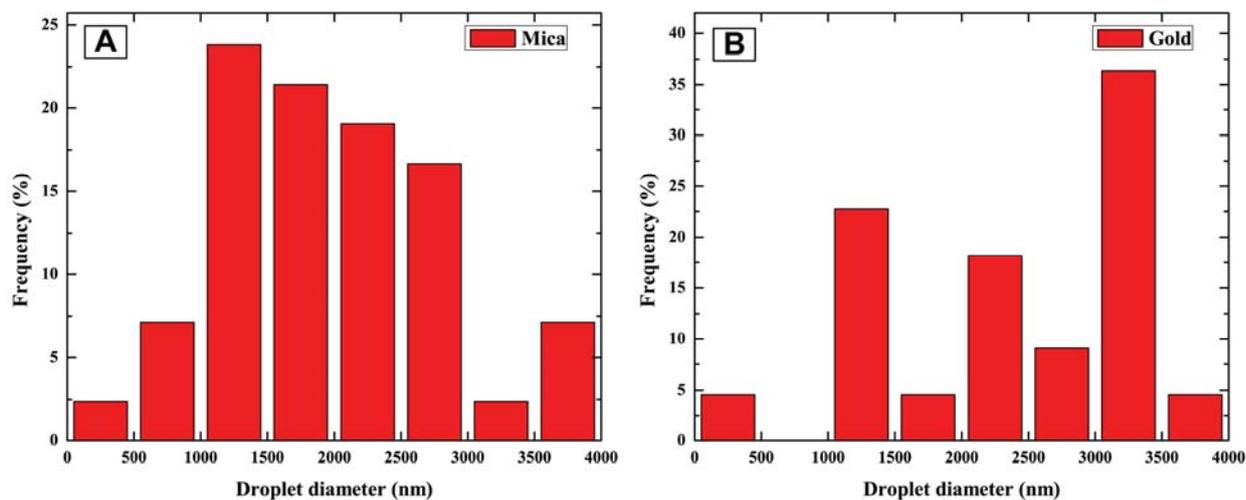


Figure S-3. Statistical distribution of droplet diameters for (PLL/HA)₁₂ multilayers adsorbed on mica (A) and gold (B).

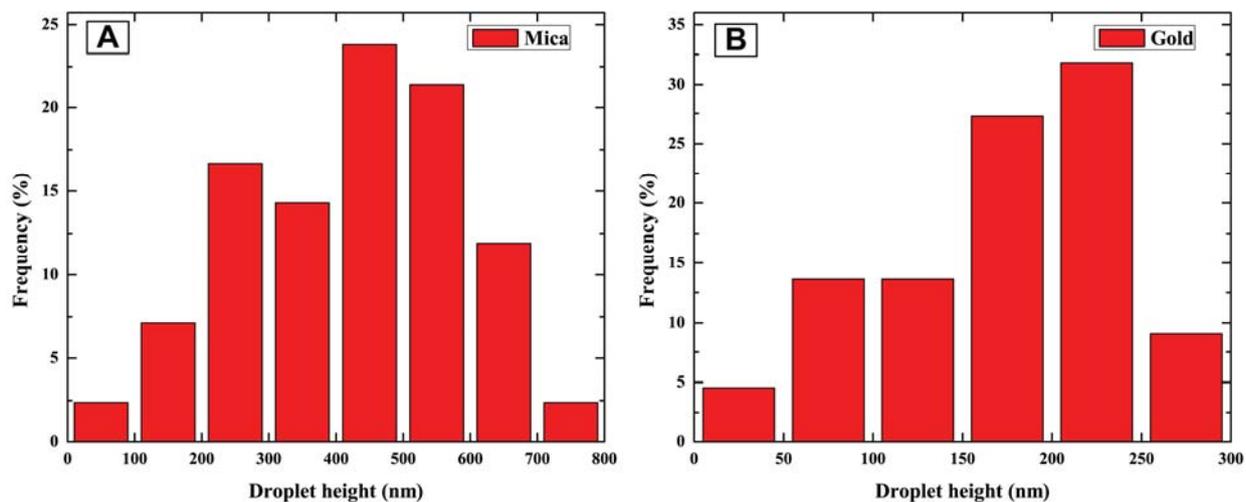


Figure S-4. Statistical distribution of droplet heights for (PLL/HA)₁₂ multilayers adsorbed on mica (A) and gold (B).

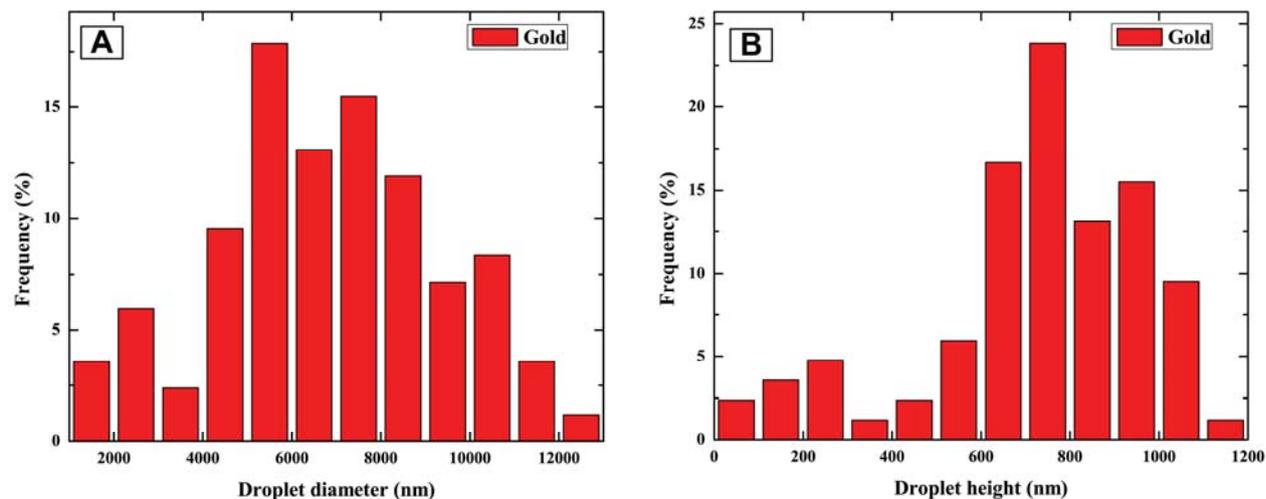


Figure S-5. Statistical distribution of droplet diameters (A) and droplet heights (B) for (PLL/HA)₂₄ multilayers adsorbed on gold.

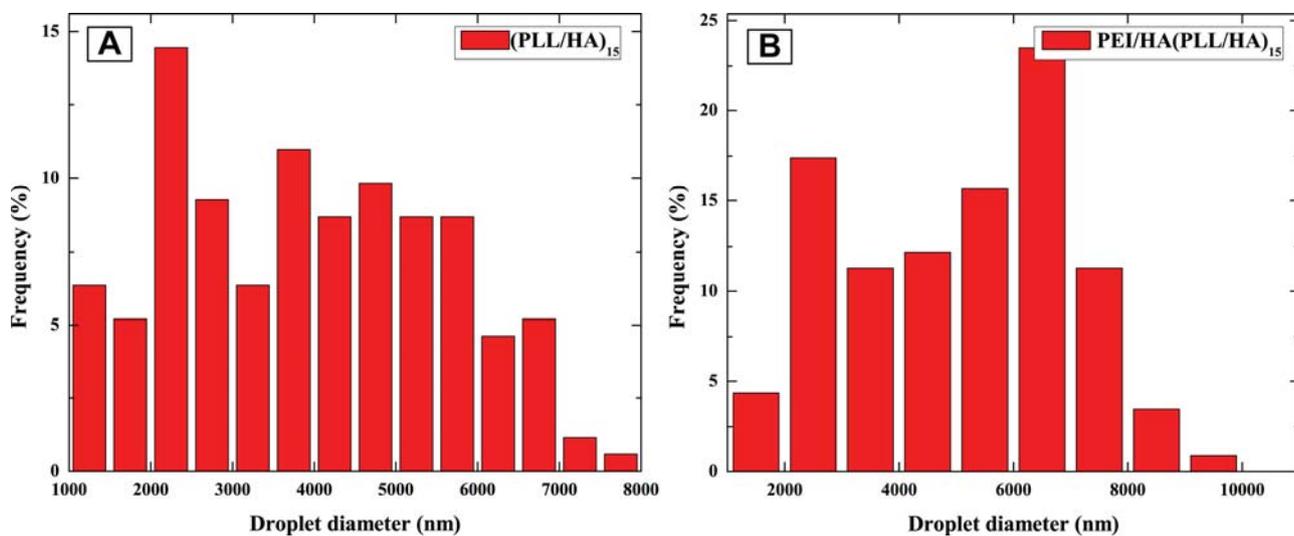


Figure S-6. Statistical distribution of droplet diameters for (PLL/HA)₁₅ multilayers (A) and PEI/HA(PLL/HA)₁₅ multilayers (B) adsorbed on gold.

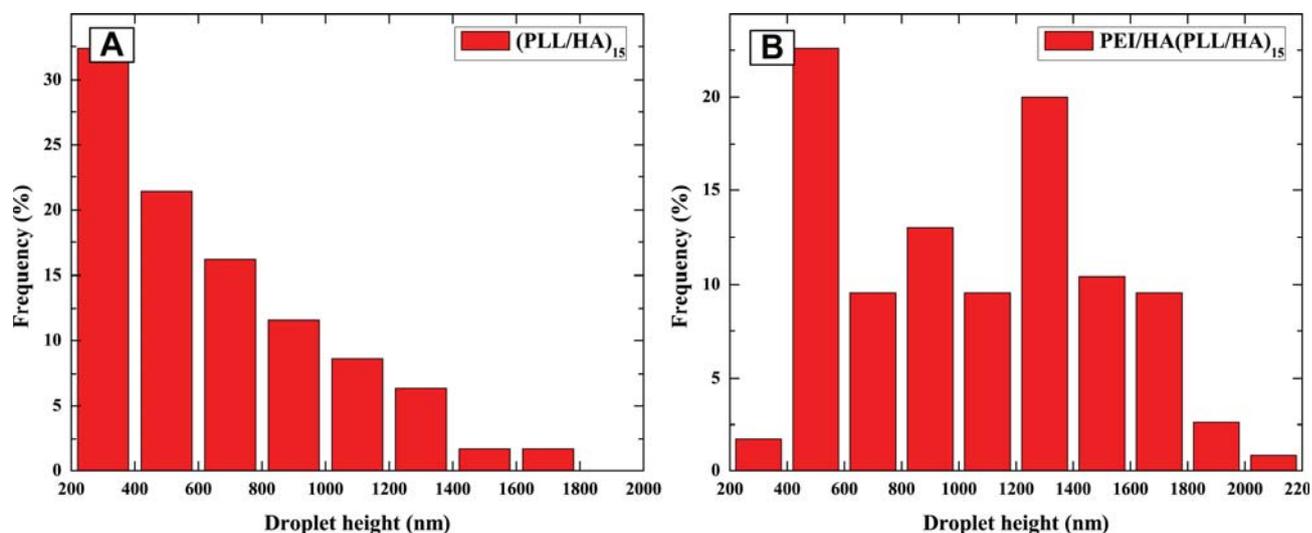


Figure S-7. Statistical distribution of droplet heights for (PLL/HA)₁₅ multilayers (A) and PEI/HA(PLL/HA)₁₅ multilayers (B) adsorbed on gold.

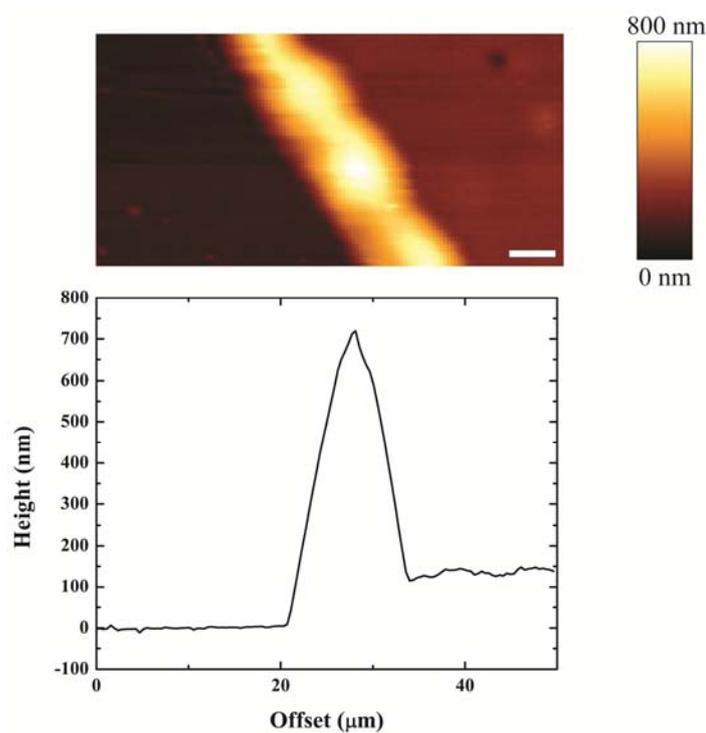


Figure S-8. Top: AFM micrograph of a (PLL/HA)₁₂ multilayer adsorbed on ITO. The film was scratched with a razor blade in order to determine its thickness. The image is 50 x 25 μm², the scale bar is 5 μm. **Bottom:** Typical line scan across the scratch in the film.

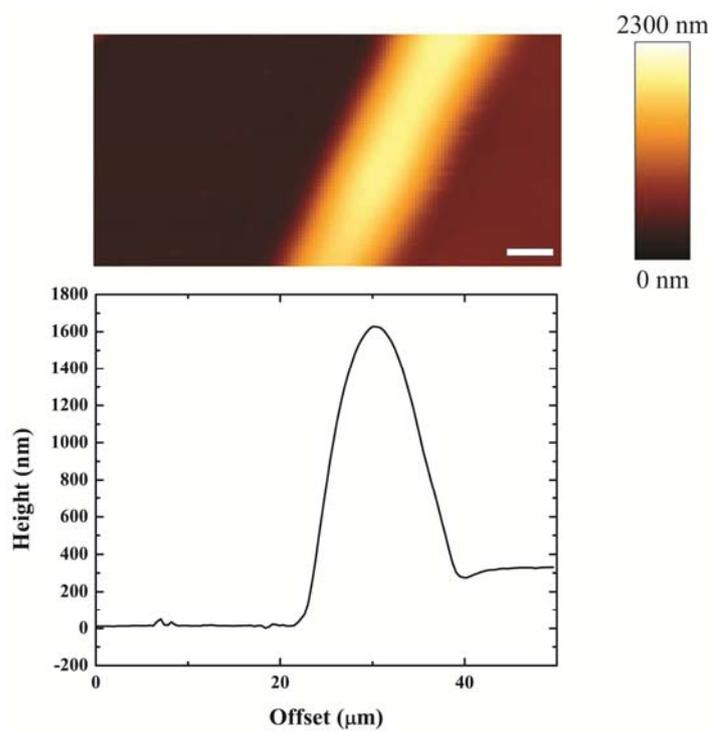


Figure S-9. Top: AFM micrograph of a $(\text{PLL}/\text{HA})_{24}$ multilayer adsorbed on ITO. The film was scratched with a razor blade in order to determine its thickness. The image is $50 \times 25 \mu\text{m}^2$, the scale bar is $5 \mu\text{m}$. **Bottom:** Typical line scan across the scratch in the film.

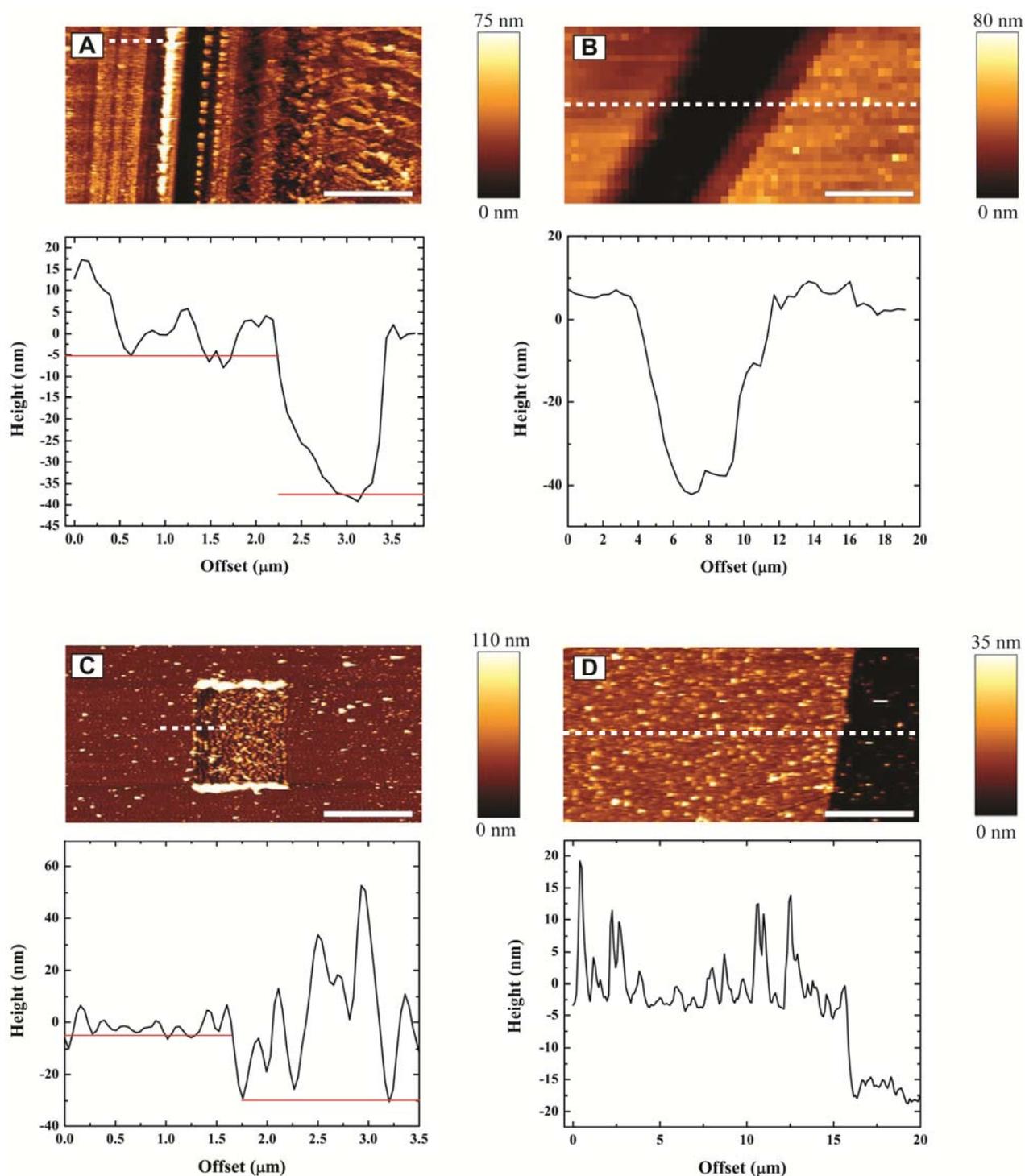


Figure S-10. AFM micrograph of (PAH/PSS)₆ films deposited on ITO (A), glass (B), mica (C) and gold (D). The films on ITO, glass and gold were scratched with a razor blade in order to determine its thickness. The film on mica (C) was scratched using the AFM tip (high force and fast scan rate in contact mode). All images are 20 x 10 μm², the scale bars are 5 μm. Line scans across the scratch in the film are shown below each micrograph (indicated by the white dotted lines in the AFM images). The red lines in A and C indicate the level of the polyelectrolyte multilayer and of the substrate respectively.