Layer by Layer Self-Assembled Polyelectrolyte Multilayers with Embedded Phospholipid Vesicles obtained by Spraying : Integrity of the Vesicles

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Supporting information.

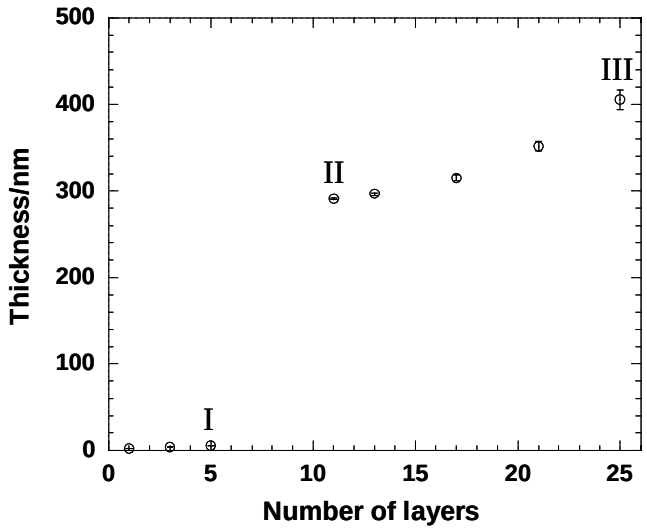

Figure 1: Evolution of the thickness increase of a PEI-(PGA/PAH)$_2$-(PGA/SV)-(PGA/PAH)$_9$ multilayer obtained by the alternated spraying method. The different steps corresponds to the deposition of : Step I: PEI-(PGA/PAH); Step II: Step I +(PGA/SV)-(PGA/PAH)$_2$; Step III: Step II +(PGA/PAH)$_7$

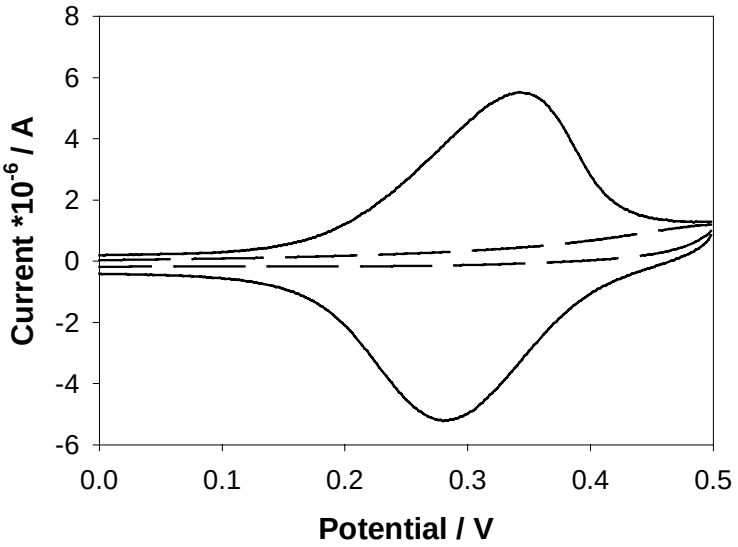

Figure 2: Cyclic voltamograms on the surface of a gold electrode covered with a PEI-(PGA/PAH)$_5$ multilayer onto which a 1 mM Fe(CN)$_6$ $^{4-}$ solution was sprayed. Dashed line: capacitive current obtained before ferrocyanide spraying. Full line: 1 min. after spraying. The scan rate was equal to 200 mV.s^{-1}.

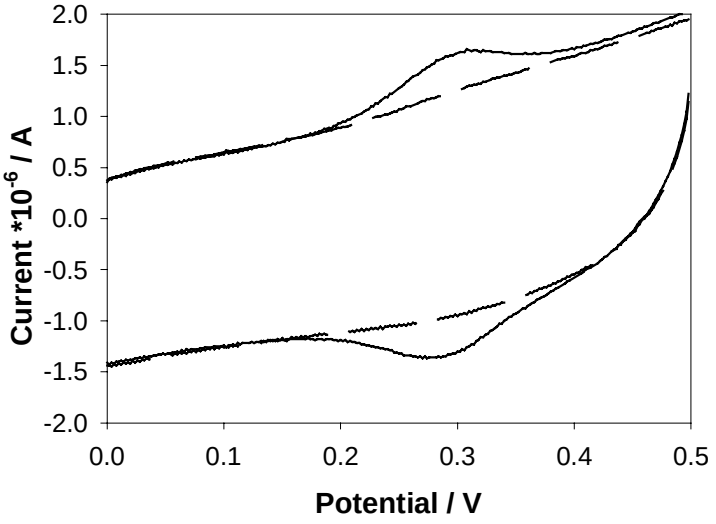

Figure 3: Cyclic voltamograms on the surface of a gold electrode onto which a PEI-(PGA/PAH)$_2$-(NSV/PAH)-(PGA/PAH)$_2$ film was sprayed. In this experiment, the vesicles contained ferrocyanide ions.

Dashed line: signal for PEI-(PGA/PAH)$_2$ before spraying the non stabilized vesicles (capacitive current); full line: cyclic voltamogram obtained about 1 min. after film build up was achieved including non stabilized vesicles. The scan rate was equal to 200 mV.s^{-1}.

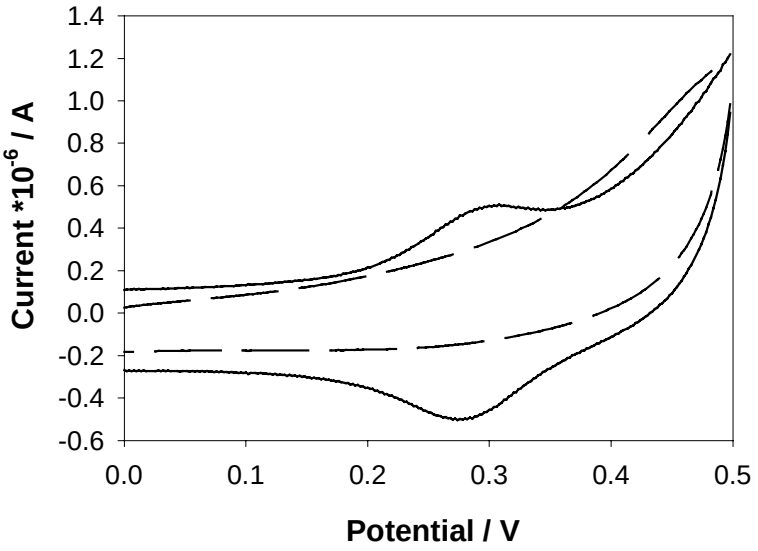

Figure 4: Cyclic voltamograms of a gold electrode covered with a PEI-(PGA/PAH)$_2$-PGA film onto which stabilized vesicles (SV) were sprayed and kept uncovered. Dashed line: signal obtained before spraying the SV (capacitive current); full line: cyclic voltamogram obtained about 1 min after SV spraying was achieved. The scan rate was equal to 200 mV.s^{-1}.