Electronic Supporting Information

Design and synthesis by ATRP of novel, water-insoluble, lineal copolymers and its application in the development of fluorescent and pH-sensing nanofibres made by electrospinning

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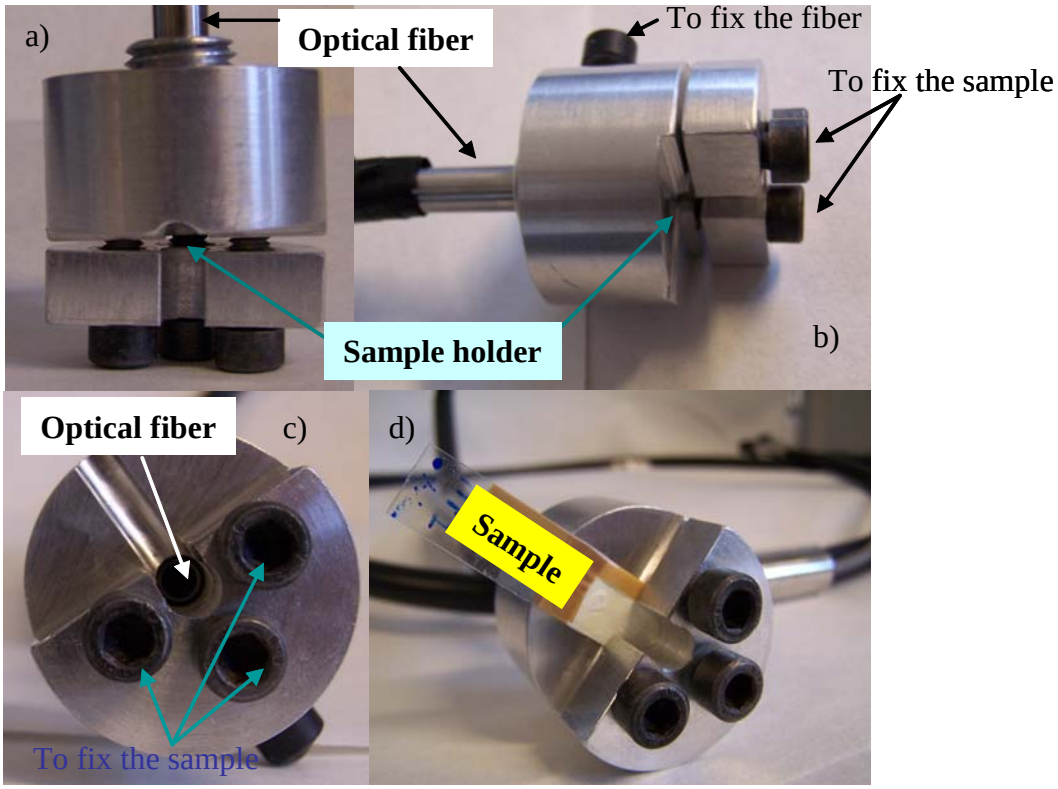


Fig. ESI-1. Several views of the home-made cell developed for the optical characterization of the pH-sensitive sensing films.

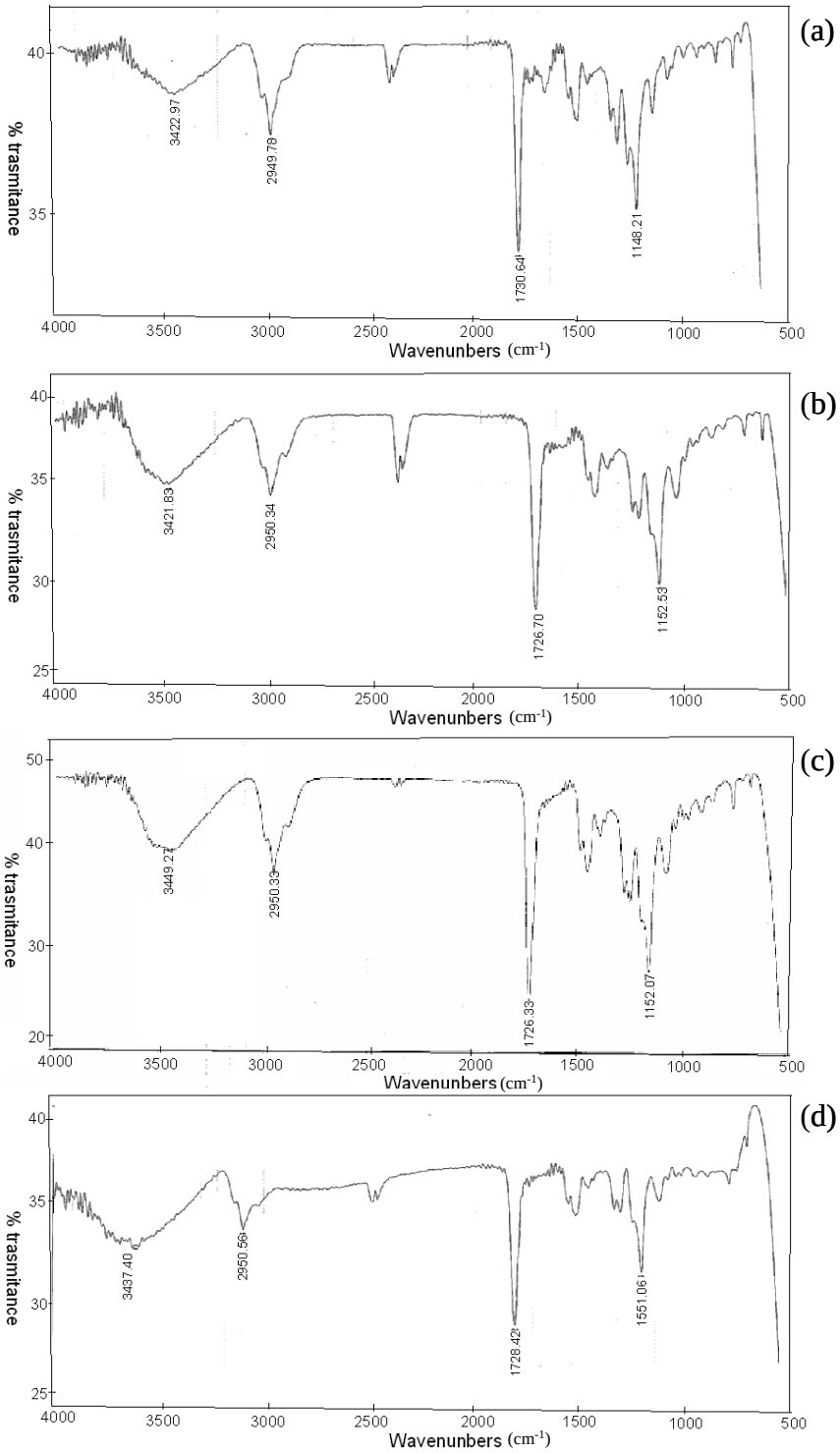


Fig. ESI-2. FT-IR spectra of a) NP0, b) NP1, c) NP1(X) and d) NP1(-)(A).

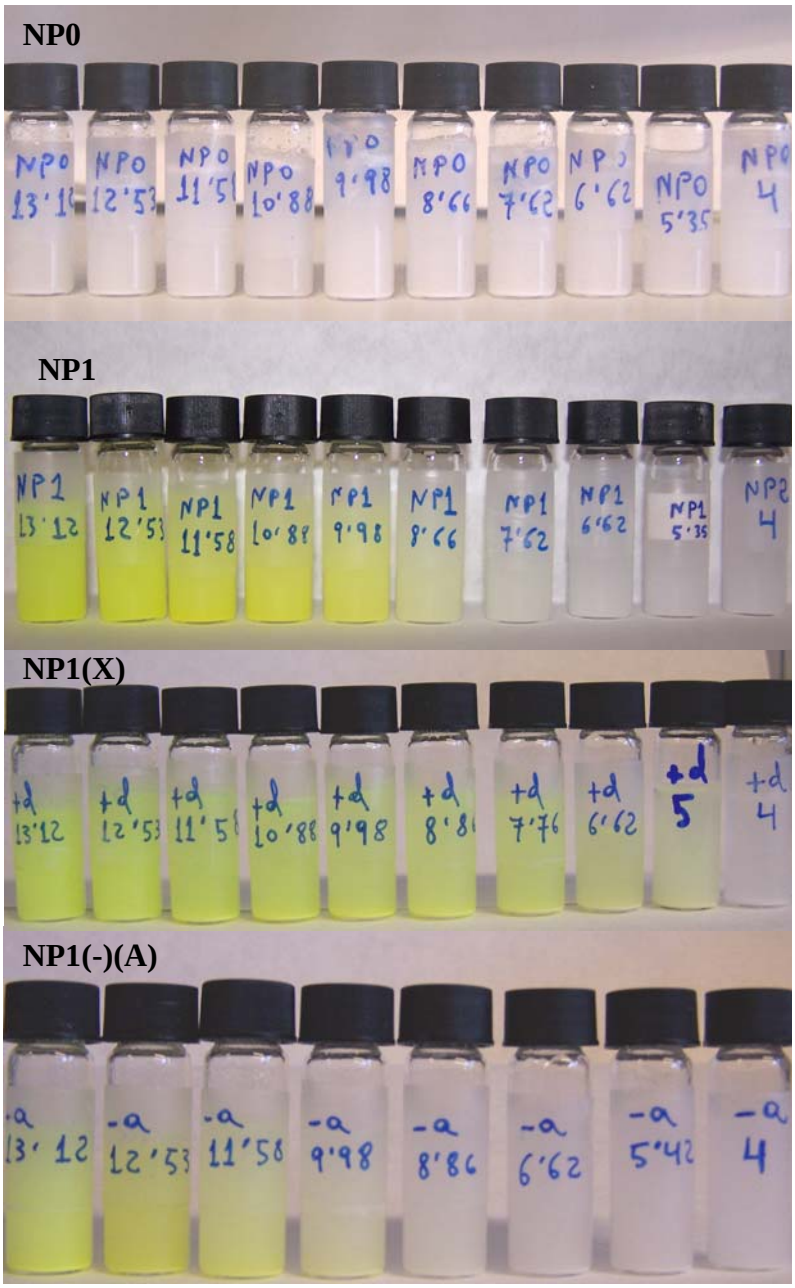
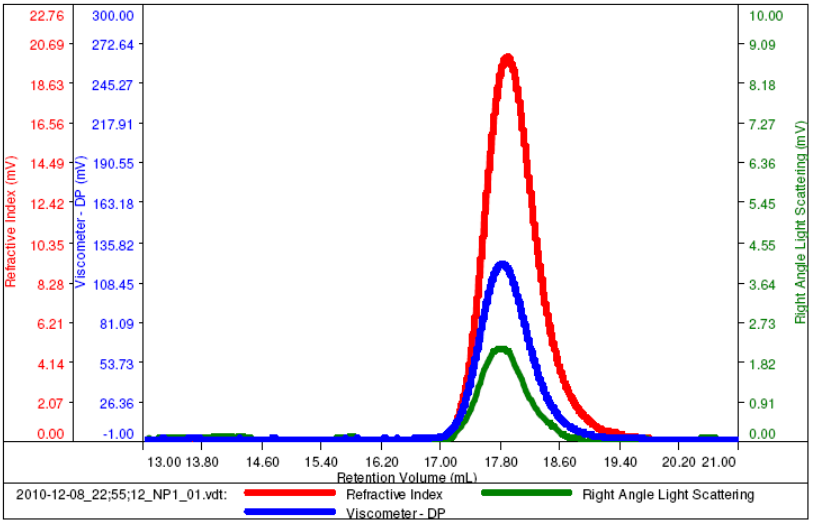


Fig. ESI-3. Pictures of the dispersions of NP0, NP1, NP1(X) and NP1(-)(A) in water at different pH values.

(A)



(B)

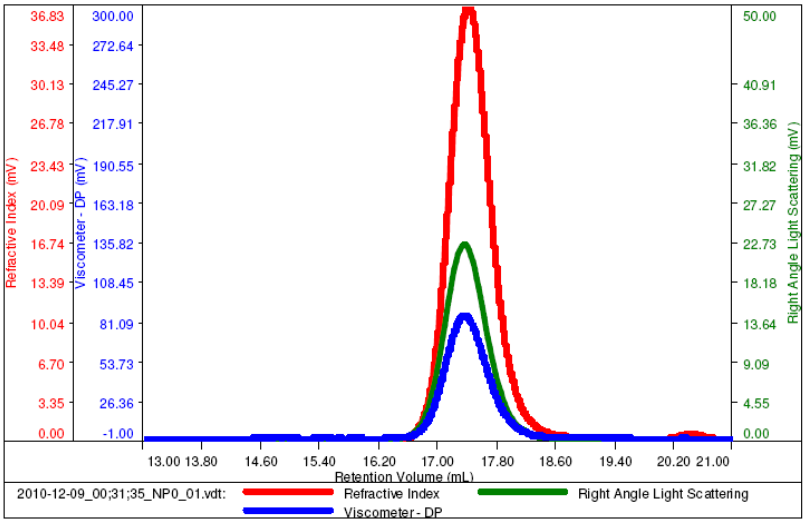


Fig. ESI-4 Triple detection GPC overlay of (A) NP1 and (B) NP0**.**

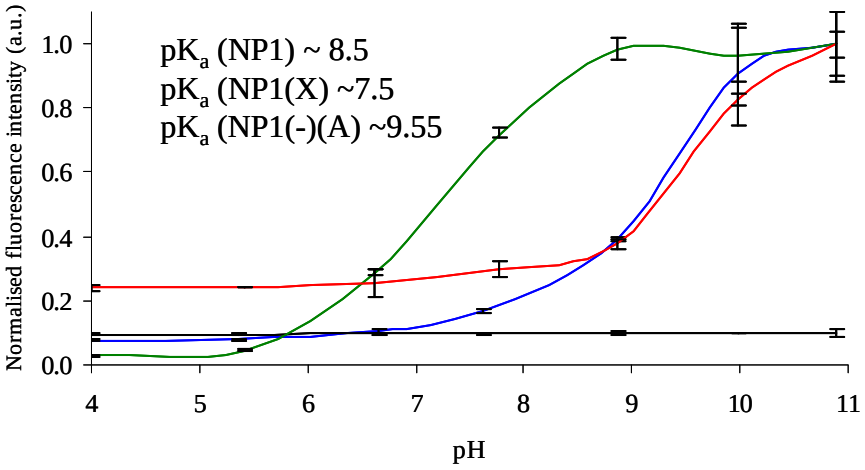


Fig. ESI-5. Comparison of the pK$_a$ of the copolymers NP0 (—), NP1 (—), NP1(X) (—) and NP1(-)(A) (—).

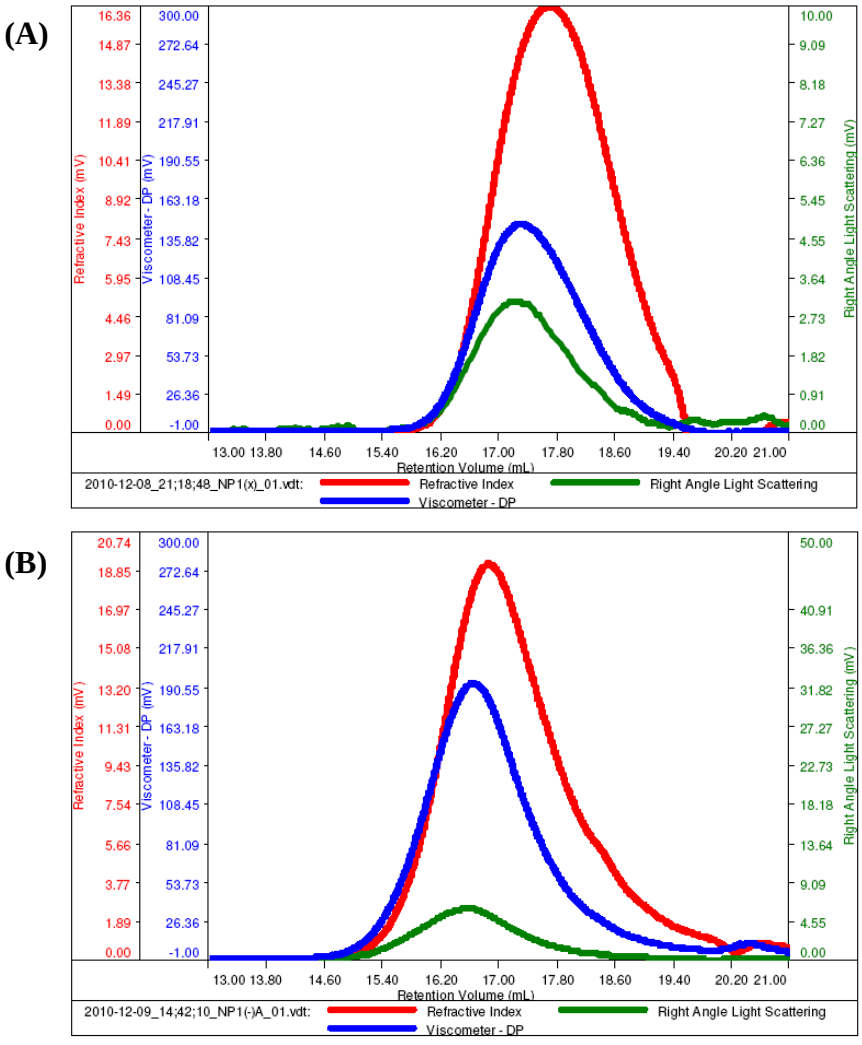


Fig. ESI-6 Triple detection GPC overlay of (A) NP1(X) and (B) NP1(-)(A)**.**

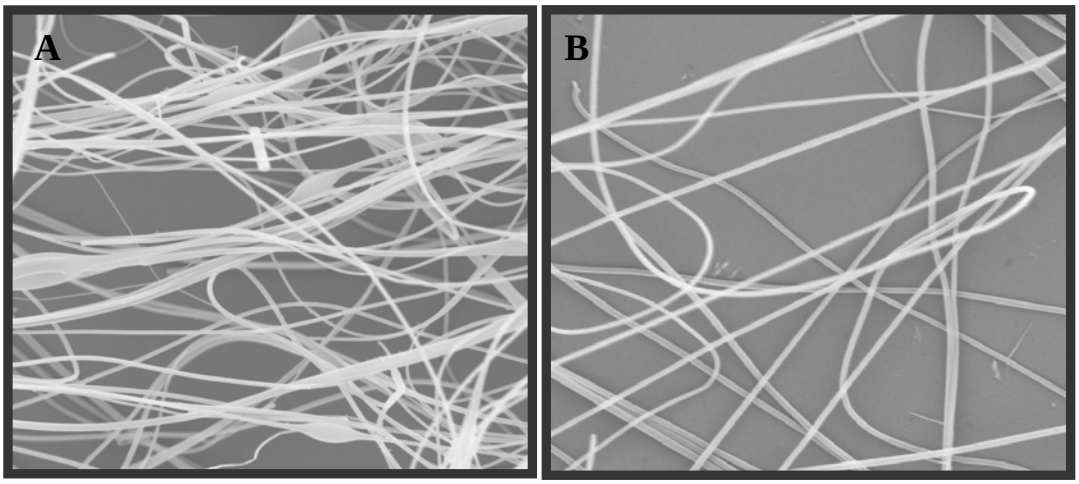


Fig. ESI-7 TEM picture of nanofibres prepared with A) low concentration of NP1 (20 wt %) and B) with high concentration of NP1 (40 wt %) and 1.75 wt % of HCl**.**

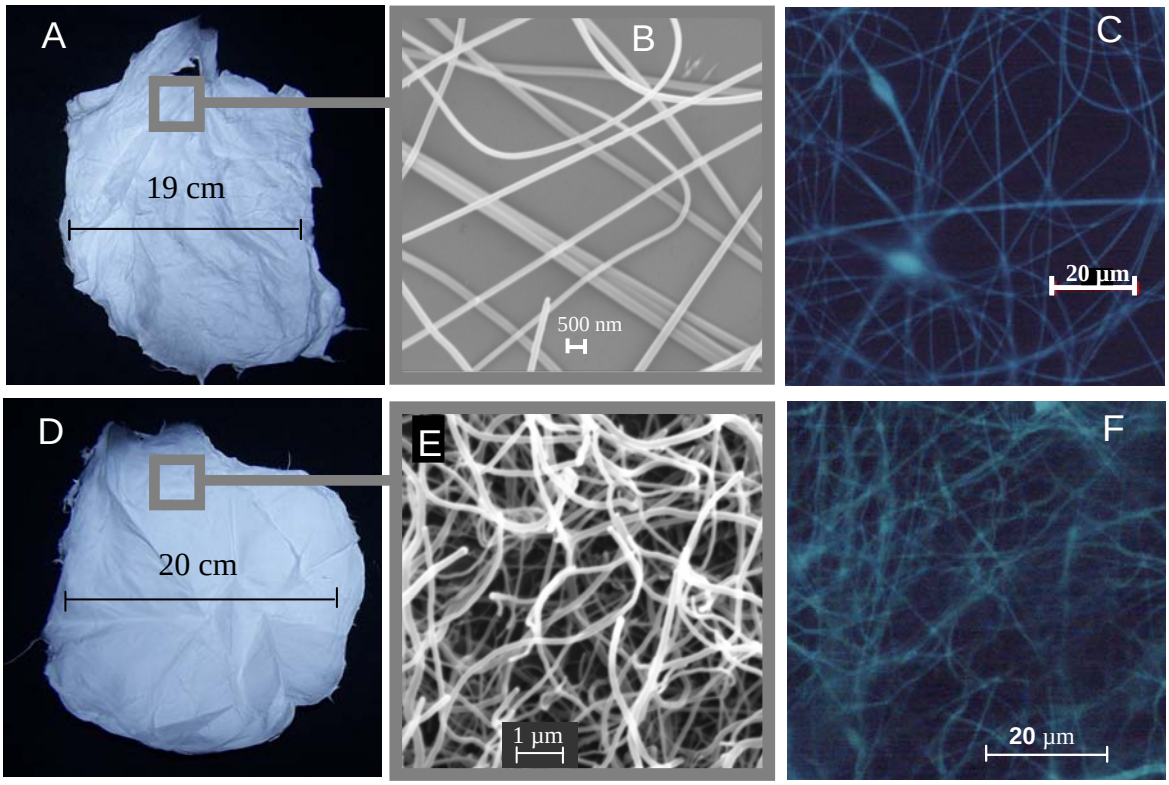


Fig. ESI-8. Figure 5 of the paper in colour.

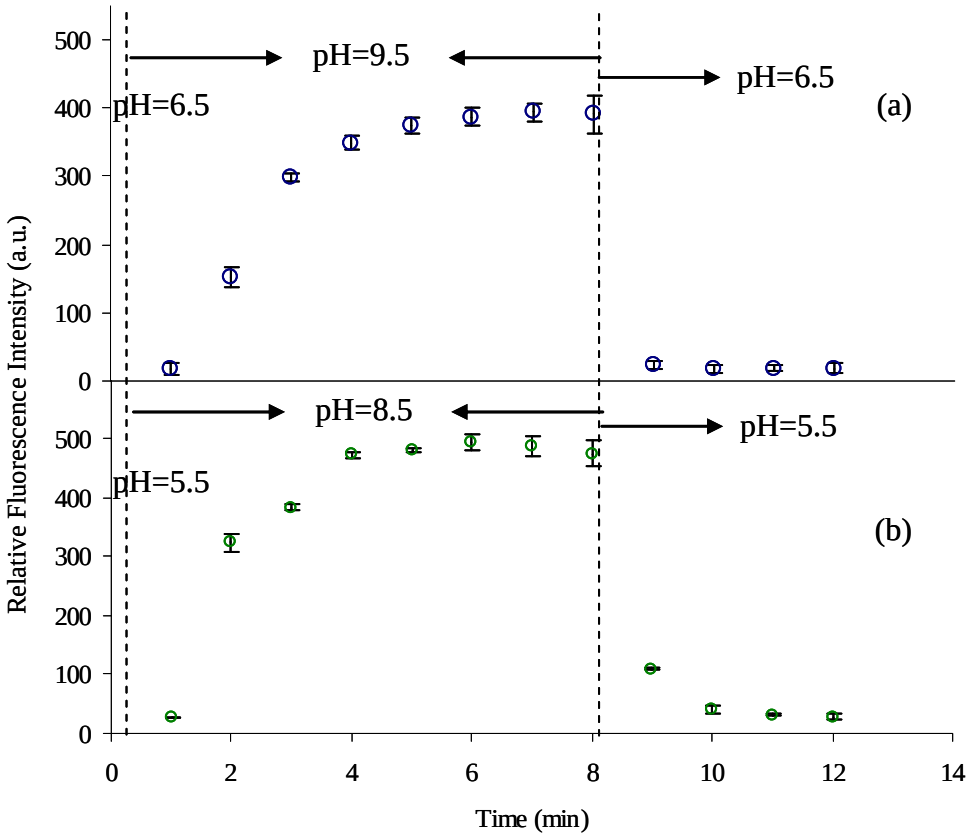


Fig. ESI-9. Determination of the equilibrium time of a) N-F-NP1 and b) N-F-NP1(X) sensing films.

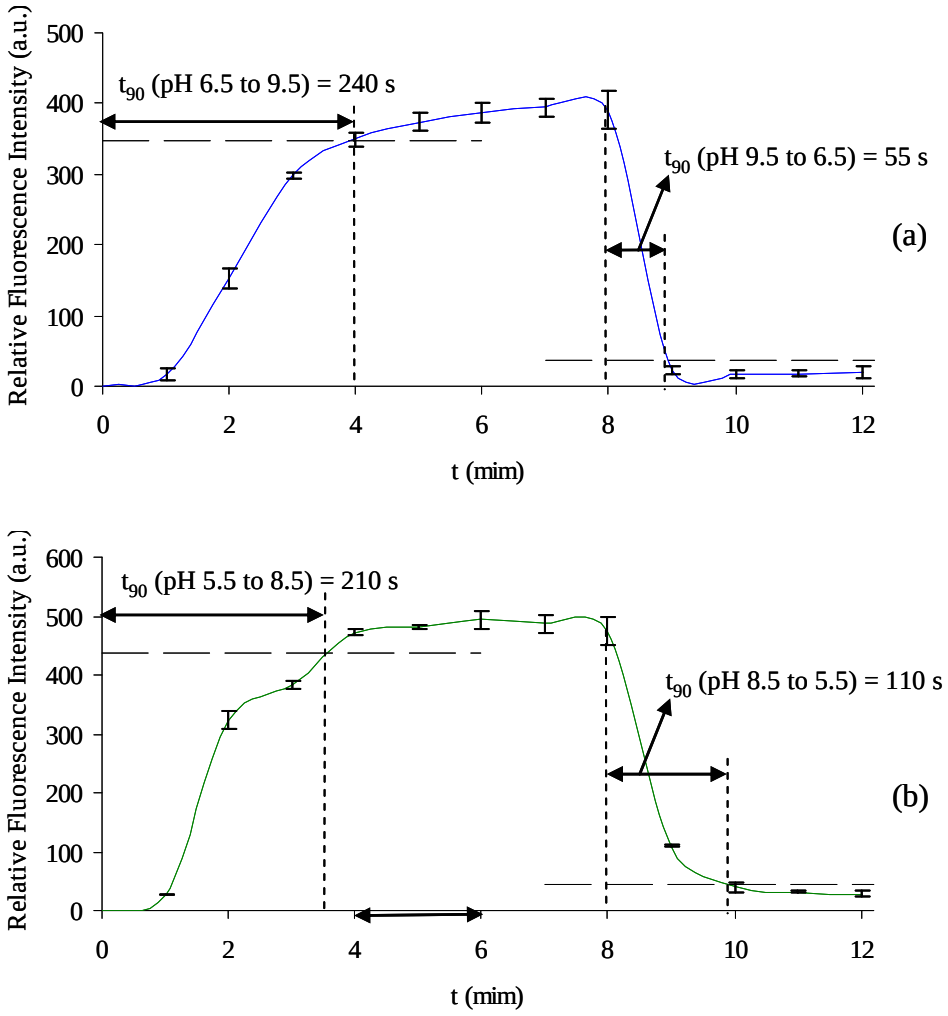


Fig. ESI-10. Determination of the t_{90} response time of a) F-N-NP1 and b) F-N-NP1(X) sensing films.

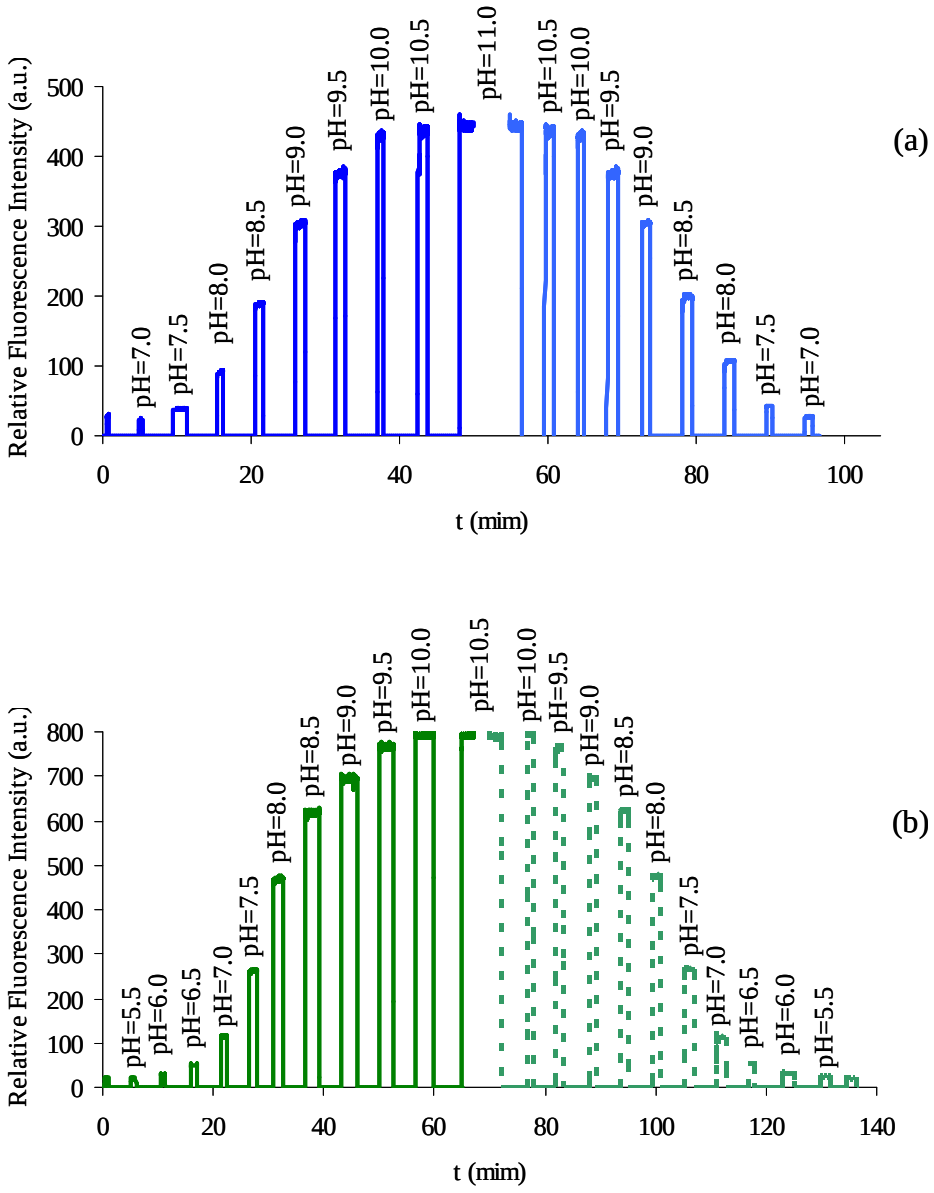


Fig. ESI-11. Reversibility of the sensing layers a) N-F-NP1 and b) N-F-NP1(X).