The Chemistry of 6-Hydroxyflavylium: Zwitterionic base, and *p*-Quinoidal Chalcones. A Multiswitchable System Operated by Proton, Electron and Photon Inputs.

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Supplementary Material

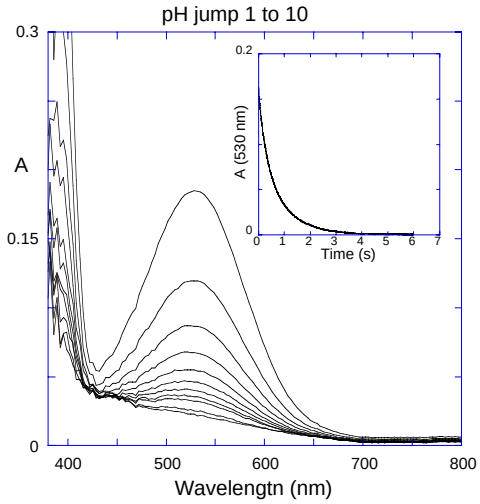

Figure S1 - Kinetics of the zwitterionic base decay followed by stopped flow.

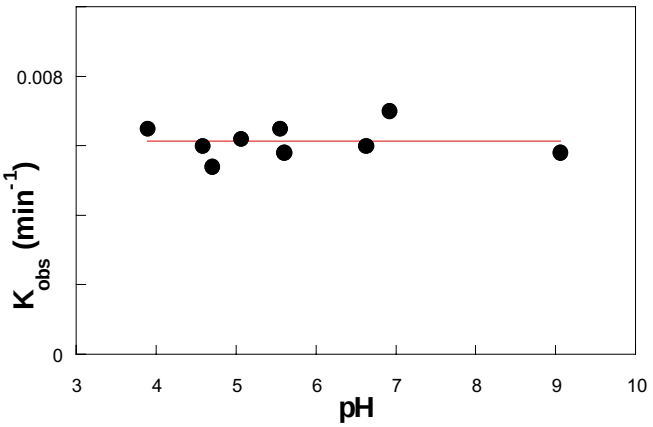

Figure S2 - Rate constant of the *cis-trans* isomerization as a function of pH.

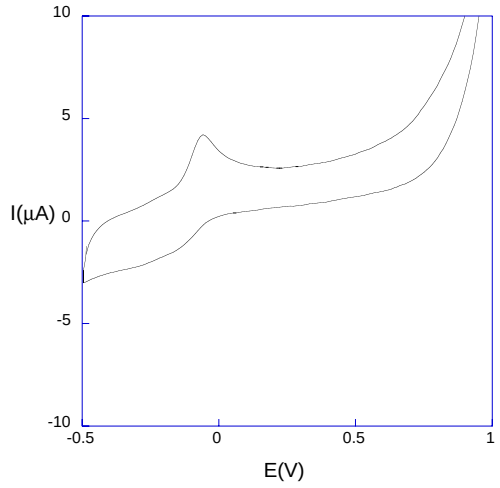

Figure S3 – When a pH jump from 1 to 11.3 is carried out and a cyclic voltametry is immediately performed, a new wave is formed that disappears after a few minutes.

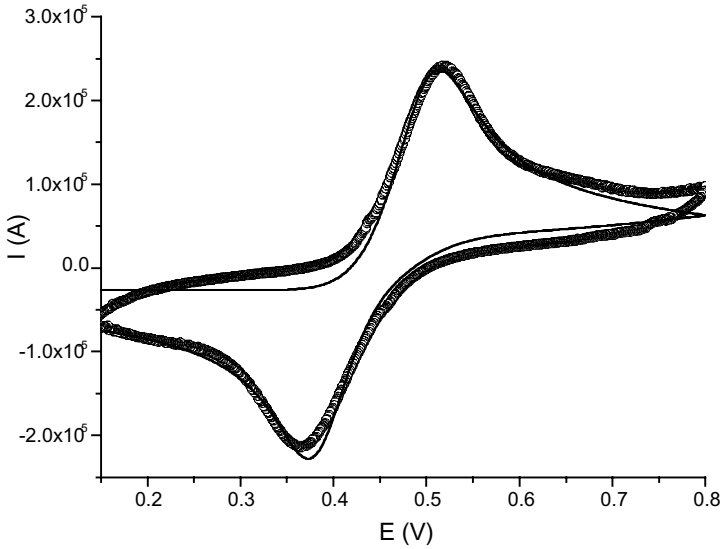

Figure S4 - Comparison of experimental (circles) and fitted (line) cyclic voltammograms of 2.9×10^{-4} M 2,5-dihydroxychalcone at pH 1, run at 0.1 Vs^{-1}; T=21 °C. The fitting was made using GPES4.9 commercial voltammetric simulation package from EcoChemie V.B. The working electrode was a GC electrode from BAS and the reference electrode was a Ag/AgCl electrode. Parameters extracted from the theoretical model: formal potential, $E^0 = 0.438$V (*vs.* Ag/AgCl); the electron transfer coefficient, $\alpha = 0.48$.