

SUPPLEMENTARY MATERIAL

The Role of Pristine Carbon Nanotubes as Nanocarriers of 7,8-Dihydroxyflavone

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S.1. Absorbance measurements

UV-vis absorption spectra of 7,8-DHF and DPPH· were recorded on a Cary 1E UV-Vis (Varian) spectrophotometer at 298.0 ± 0.1 K. A quartz cell of 10 mm path length was used. Data were collected every 1 nm, and spectra were recorded in the wavelength range 200-500 nm and 200-700 nm for 7,8-DHF and DPPH·, respectively.

S.1.1. Absorbance calibration curves of 7,8-DHF

A stock solution of 7,8-DHF, $8.65 \cdot 10^{-4}$ mol dm⁻³, was prepared in ethanol as solvent. This solution was stored in the dark at 4 °C to avoid the flavone degradation. Three calibration curves were obtained, each one for the different pH conditions used. 7,8-DHF solutions of known concentrations, within the range $2.52 \cdot 10^{-6}$ - $3.00 \cdot 10^{-5}$ mol dm⁻³ were prepared as follows. An adequate aliquot of the ethanolic stock solution of 7,8-DHF was added to a 10 mL flask. Ethanol was evaporated with an N₂ flow and, later, the buffer solution was added up to the calibration mark. The flask was subsequently placed in a sonication bath for 20 minutes in the dark. Thus, the flavone is completely dissolved in the aqueous buffered solution. Once the absorbance of each solution is measured at a given wavelength, the calibration curve was obtained. The wavelength selected for the absorbance measurement depended on the pH: $\lambda = 310$ nm for pH=2.0 and $\lambda = 380$ nm for pH=7.4 and 9.2. Temperature was kept at 298.0 ± 0.1 K.

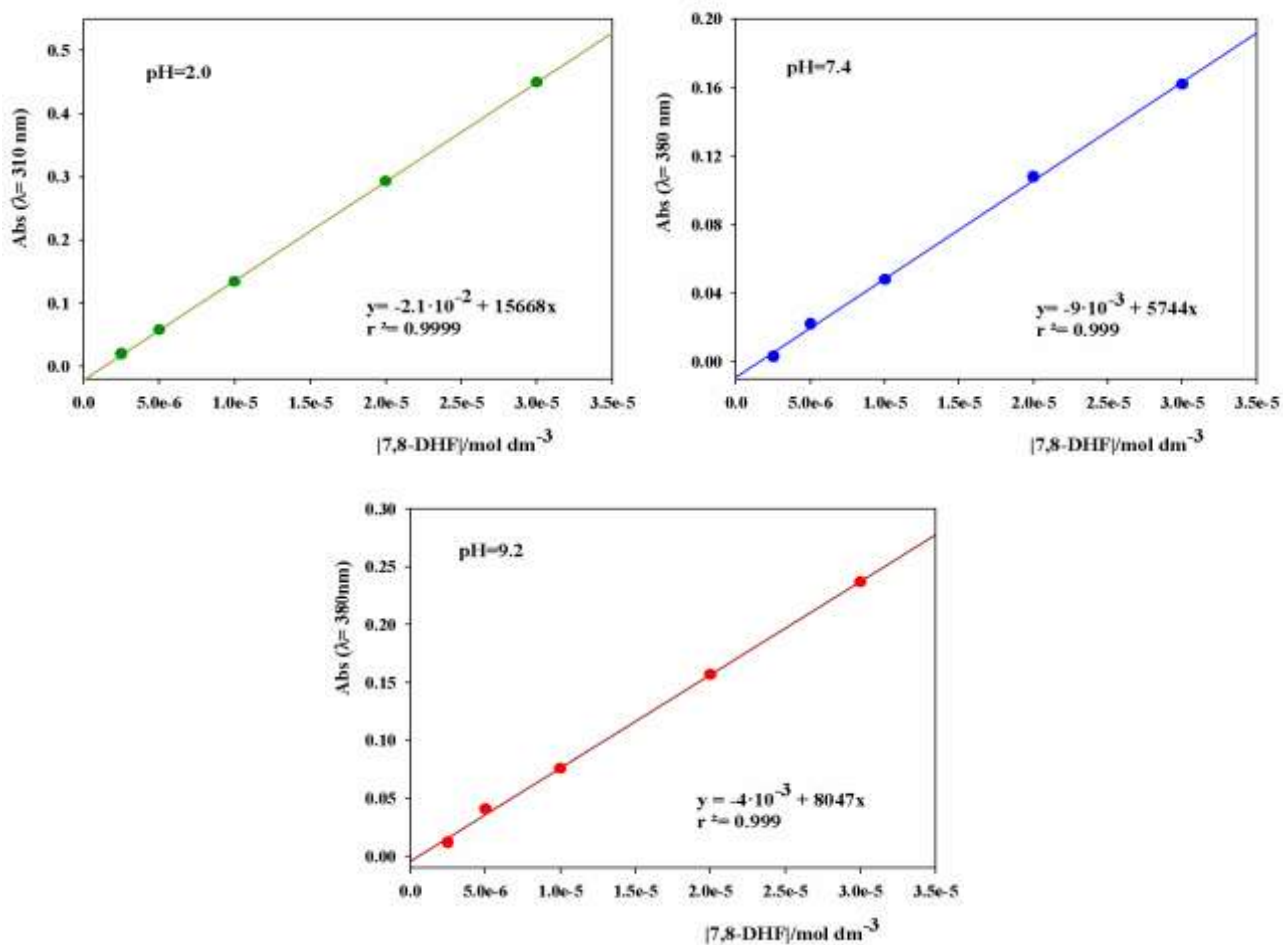


Fig. S1. Absorbance calibration curves for 7,8-DHF at different pHs. $T=298.1 \pm 0.1$ K.