Supplementary material

A biophysical approach to daunorubicin interaction with model membranes: relevance for the drug's biological activity Ana Catarina Alves¹, Daniela Ribeiro¹, Miguel Horta¹, José L.F.C. Lima¹, Cláudia Nunes^{1*}and Salette Reis¹ ¹UCIBIO, REQUIMTE, Departamento de Ciências Químicas, Faculdade de Farmácia, Universidade do Porto, Portugal

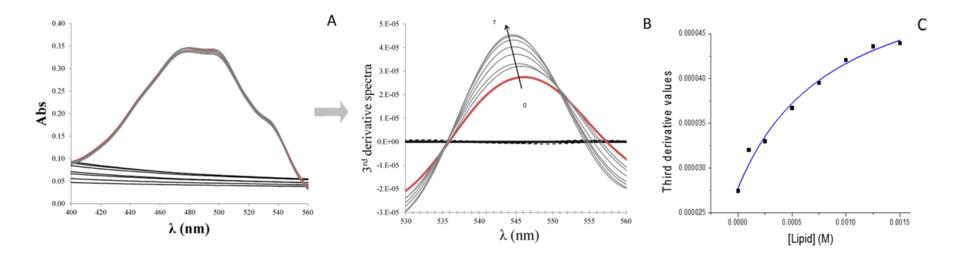


Figure 1: Absorption (A) and third-derivative absorption (B) spectra of daunorubicin (40µM) (red line, 0) alone, incubated in DMPC:SM model membrane at 37 °C with increasing lipid concentration (7, represents the maximum lipid concentration) and the model membrane without drug (black dashed lines). Plot (C) represents the best fitting curve to experimental third-derivative spectrophotometric data (D_T vs. [L]) using a nonlinear regression method at a wavelength of 546 nm.

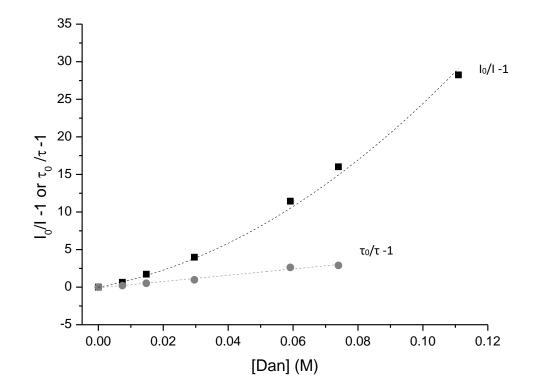


Figure 2: Stern–Volmer plots of the probe DPH in the DMPC:SM model at pH 7.4 and 37 °C with increasing daunorubicin concentrations: square symbols (\blacksquare) represent the Stern–Volmer plot obtained by steady-state fluorescence measurements ($I_0/I-1$) and circle symbols (\bullet) represent the Stern–Volmer plot obtained by lifetime fluorescence measurements ($\tau_0/\tau-1$).