Temperature Evaluation of Curcumin Keto-Enolic Kinetics and Its Interaction with Two Pluronic Copolymers

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Scheme S1: Schematic experimental procedure (a) to obtain the interaction isotherms of CUR in PLU and (b) production of the solid dispersions formulation.
Figure S1: First-order kinetic linearization involving the curcumin (3.9 μg mL\(^{-1}\)) tautomeric equilibrium in function of temperature. Obtained regarding the keto-enol specie (428 nm).

Figure S2: (a) Arrhenius Plot used to obtain the \(E_a\) and (b) Eyring plot used to calculate the activation thermodynamic parameters (\(\Delta H^\ddagger\), \(\Delta S^\ddagger\) and \(\Delta G^\ddagger\)).

Figure S3: Curcumin (2.08 μg mL\(^{-1}\)) emission spectra as a function of copolymer concentration in water performed at 298 K for (a) P123 and (b) F127, using \(\lambda_{exc} = 426\) nm.
Figure S4. Graph of $\ln(\chi)$ versus $1/T$ usually employed into van’t Hoff equation for (a) P123 and (b) F127.
Figure S5. Apparent radius acquired at 90° for (a) P123, (b) F127, (c) CUR-P123 and (d) CUR-F127 systems at different temperatures.
Figure S6: DSC curves of pure P123, F127 and CUR.

Figure S7: Temperature-composition phase diagrams for (a) CUR-P123 and (b) CUR-F127 eutectic systems.