**Supporting Information**

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

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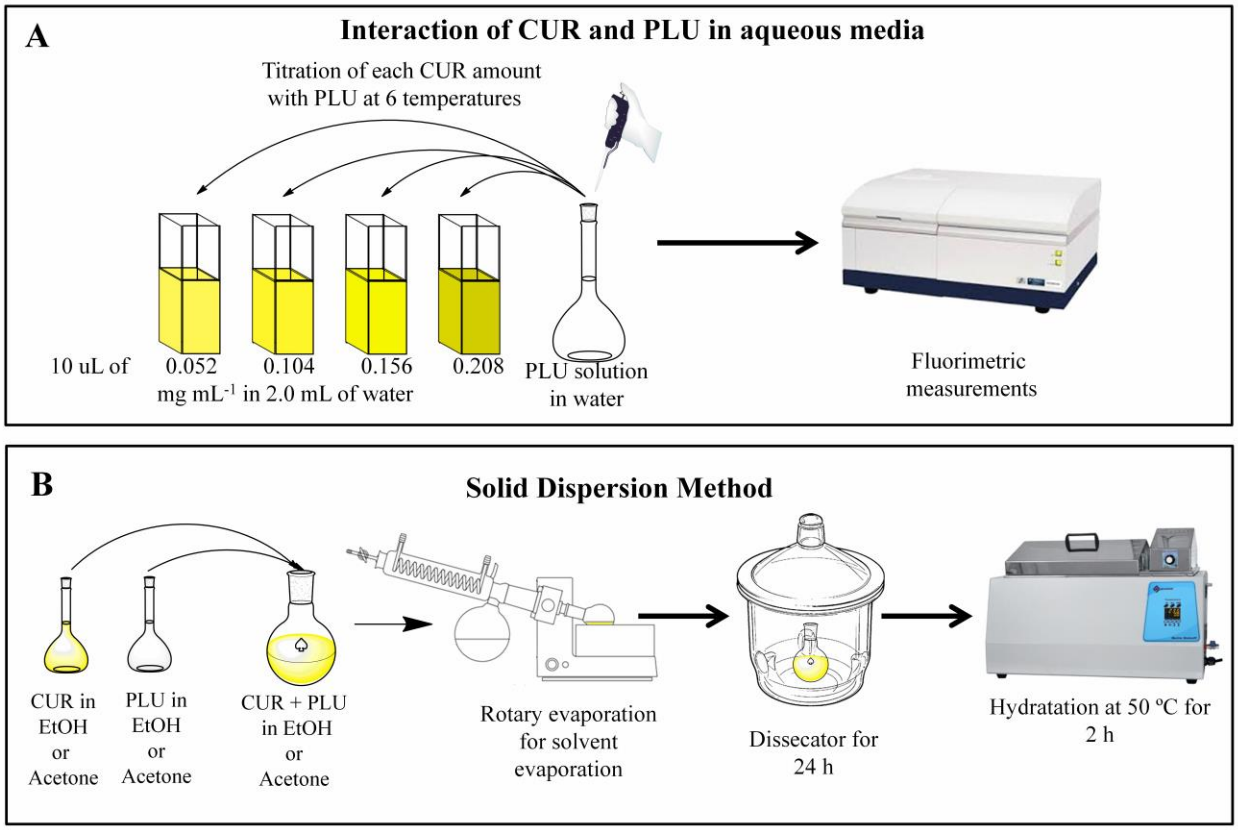


Scheme S1: Schematic experimental procedure (a) to obtain the interaction isotherms of CUR in PLU and (b) production of the solid dispersions formulation.

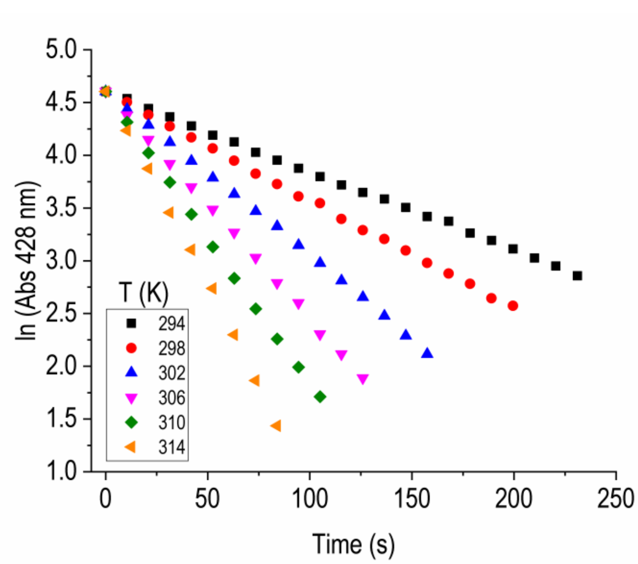

Figure S1: First-order kinetic linearization involving the curcumin (3.9 μg $mL^{-1}$) tautomeric equilibrium in function of temperature. Obtained regarding the keto-enol specie (428 nm).

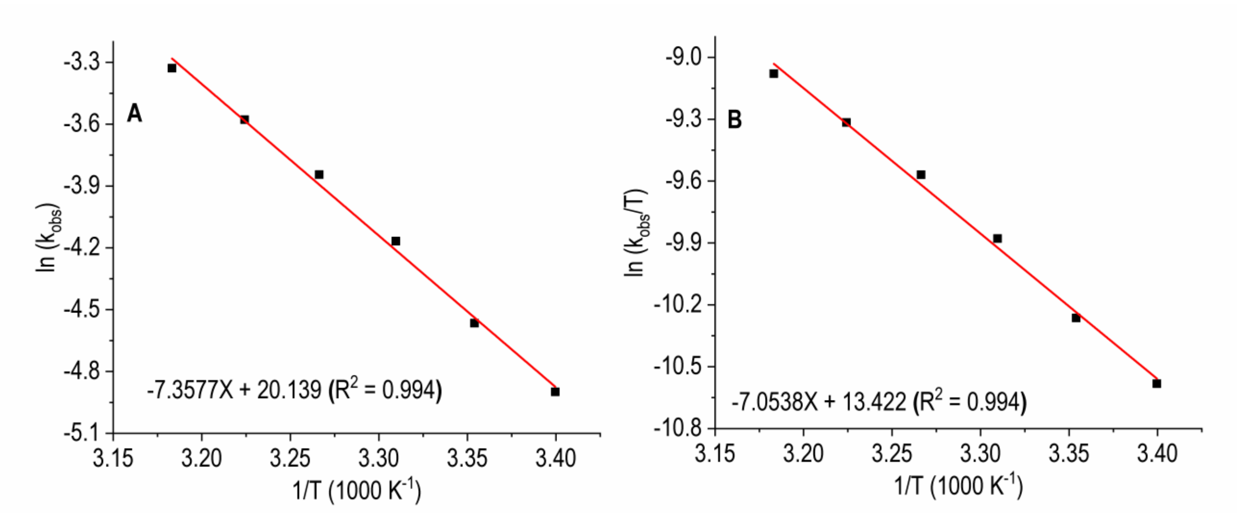


Figure S2: (a) Arrhenius Plot used to obtain the $E_a$ and (b) Eyring plot used to calculate the activation thermodynamic parameters ($\Delta H^{\ddagger}$, $\Delta S^{\ddagger}$ and $\Delta G^{\ddagger}$).

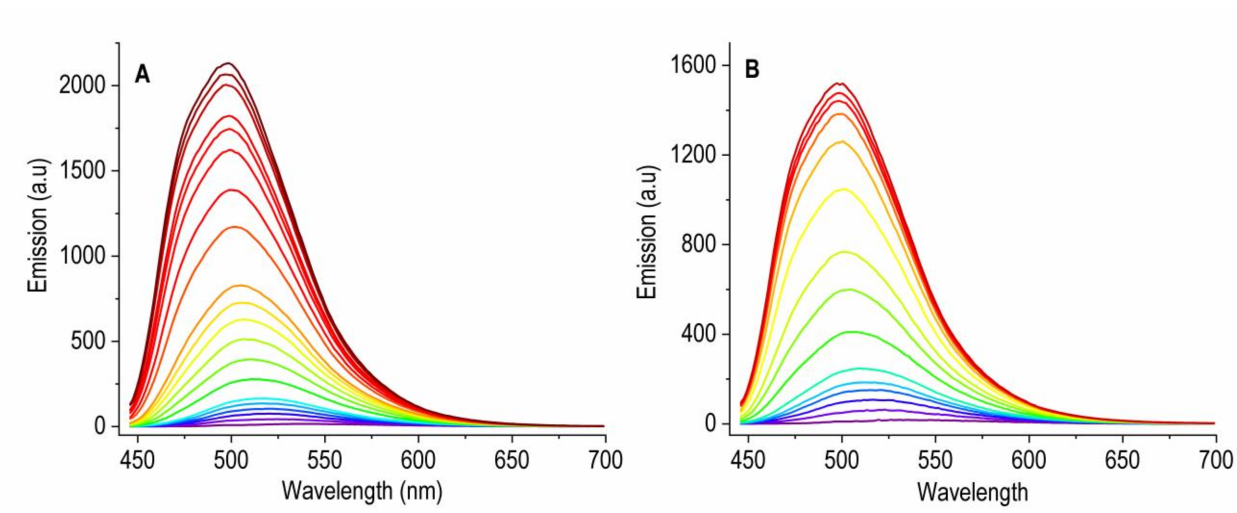


Figure S3: Curcumin (2.08 μg $mL^{-1}$) emission spectra as a function of copolymer concentration in water performed at 298 K for (a) P123 and (b) F127, using $\lambda_{exc}$ = 426 nm.

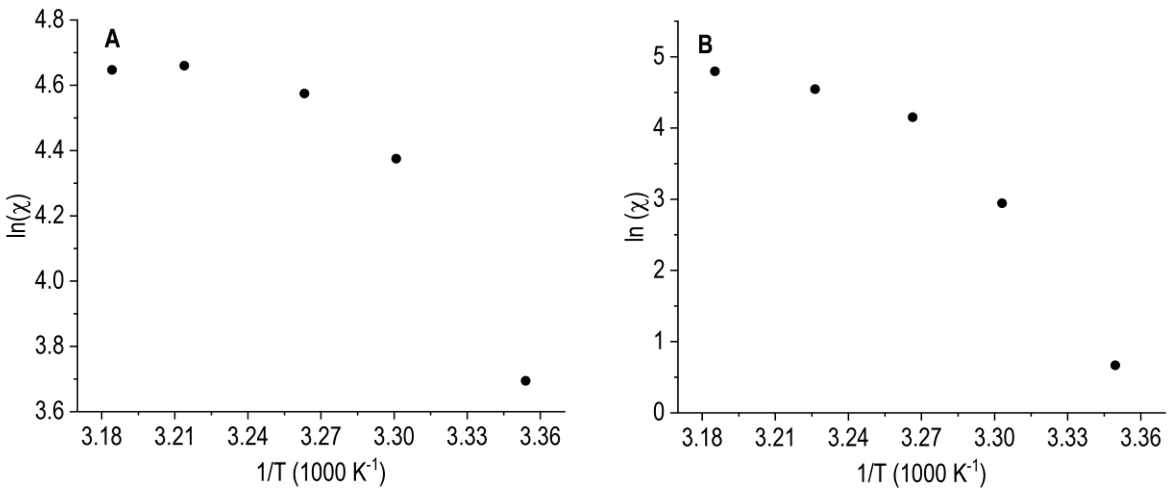


Figure S4. Graph of ln (χ) versus 1/T usually employed into van't Hoff equation for (a) P123 and (b) F127.

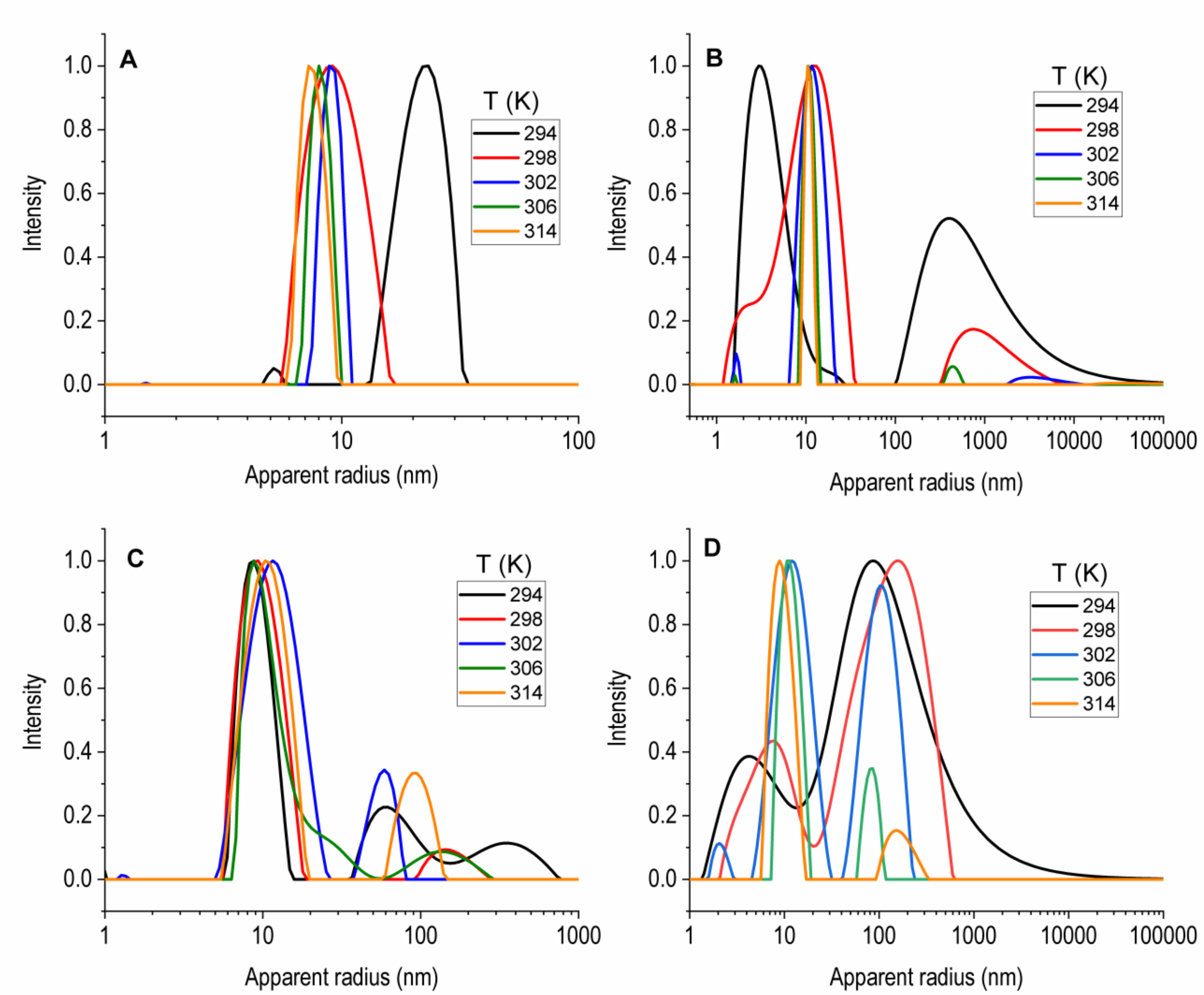


Figure S5. Apparent radius acquired at 90º for (a) P123, (b) F127, (c) CUR-P123 and (d) CUR-F127 systems at different temperatures.

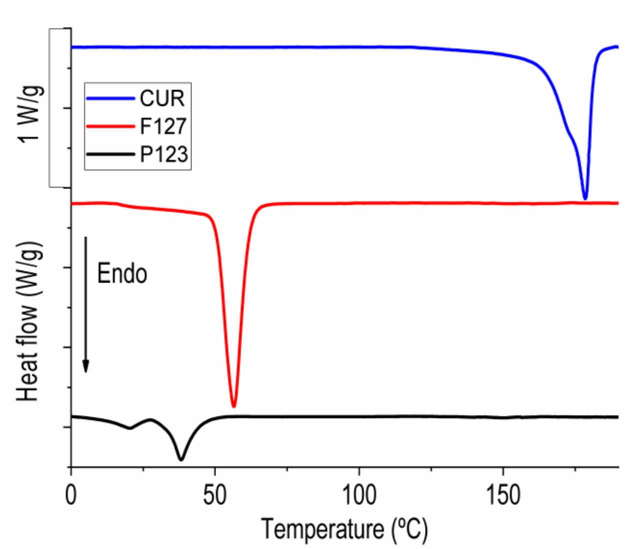


Figure S6: DSC curves of pure P123, F127 and CUR.

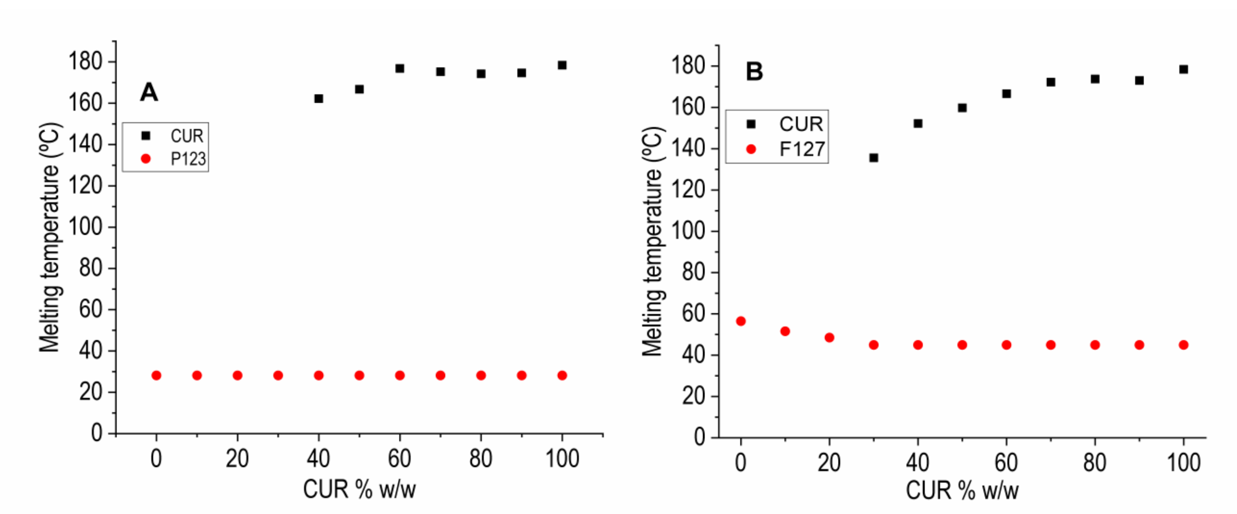


Figure S7: Temperature-composition phase diagrams for (a) CUR-P123 and (b) CUR-F127 eutectic systems.