Tables

CHAPTER 1

- **Table 1.** Experimental CMC, surface pressure at CMC (π_{CMC}), surface excess (Γ_{max}), area minimum (A_{min}), Gibbs free energy of micellization (ΔG^0_{mic}), Gibbs energy change in interfacial adsorption (ΔG^0_{ads}), fraction of counter ion binding (β) and aggregation number (n) of ($C_{12}AAS$)Na₂-HTAB mixed surfactant system at 298 K.
- Table 2. Hydrodynamic diameter (d_h), polydispersity index (PDI) and zero shear viscosity (η₀) 51 values at different mole fraction of (C₁₂AAS)Na₂, α_{(C₁₂AAS)₂Na₂} in (C₁₂AAS)Na₂-HTAB mixed surfactant systems at 298 K.

CHAPTER 2

- **Table 1.** Values of the experimental *CMC* (average), theoretical *CMC* (calculated), activity coefficient of $(C_{12}AAS)Na_2$ (f_1), HTAB (f_2), interaction parameter (β^R), micellar **62** composition of X_{AAS} and X_{HTAB} calculated from Rubingh model, micellar mole fraction at the ideal state of the component (X_1^{ideal}) calculated by Motomura equation and interfacial parameters (β^{σ}) and micellar composition at the interface (X^{σ}) values calculated from Rosen model for ($C_{12}AAS$)Na₂-HTAB mixed surfactant systems at 298 K.
- **Table 2.** Values of the activity coefficient of $(C_{12}AAS)Na_2(f_1)$, HTAB (f_2) , *CMC* values calculated **70** by SPB model, (X_{SPB}) , theoretically calculated *CMC* and interaction parameter (β^R, kT) of $(C_{12}AAS)Na_2$ -HTAB mixed surfactant systems at different mole fraction of $(C_{12}AAS)Na_2$ at 298 K.
- **Table 3.** Values of the thermodynamic parameters for the determination of excess free energy of 72 micellization (G^{Ex}), enthalpy of micellization (ΔH_m), excess enthalpy (H^{Ex}), free energy of micellization for ideal (ΔG_m^{ideal}) / non ideal (ΔG_m) mixing and entropy of micellization (ΔS_m) for non ideal mixing derived from RST of ($C_{12}AAS$)Na₂-HTAB mixed surfactant systems at different stiochiometric mole fraction of ($C_{12}AAS$)Na₂ at 298 K.

CHAPTER 3

- Table 1. Composition of different phases obtained for (C₁₂AAS)Na₂ /HTAB/H₂O system at 298K.
- **Table 2.** POM and SEM image at different weight % of $(C_{12}AAS)Na_2$ +HTAB.
- **Table 3.** Results on the thermogravimetric analysis of pure and $(C_{12}AAS)Na_2$ +HTAB mixed gels**88**system. Concentration: (100mM, ($C_{12}AAS$)Na₂: HTAB = 40:60, M/M).

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CHAPTER 4

Table 1. Results on the thermogravimetric analysis of synthesized metallosufactant $(C_{12}AAS)_2M_2$ systems.

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Table 2. Hydrodynamic diameter (d_h) , zeta potential (Z.P.) and polydispersity index (PDI) values123of different vesicle formulation systems at 298K. This data was taken on the day 45 of the
sample preparation.