







CHAPTER V
CONCLUSIONS

On the basis of the results of this study, the following conclusion can be made:

The emulsion structures formed by cationic surfactant and fatty alcohol depend upon type of cationic surfactant and fatty alcohol concentration. The proposed models for several emulsion types are shown as follow:

Emulsion	Low FA	High FA
CTAC/FA	 Lamellar aggregate	 Binding of Lamellar aggregate
BTAC/FA	 Vesicle	 Sunflower like
CTAC/FA/HEC	 Lamellar aggregate	 Partition of Lamellar aggregate

- 1) The effect of FA content is to increase emulsion elasticity.
- 2) At high fatty alcohol concentration, τ_B and G_N^0 of the CTAC/FA systems are higher than those of the BTAC/FA system because the former systems have large network type structure.
- 3) The upturn of $G'(\omega)$ at high frequency with increasing in the FA content can be explained in terms of residue of FA droplet or aggregation of the lamellar structures.
- 4) The effect of polymer is to increase emulsion viscosity and to decrease τ_B and G_N^0 in the CTAC/FA system because the polymer disrupts the formation of network.
- 5) The melting of fatty alcohol causes changes in morphology. At higher annealing temperature, fatty alcohol can interact with CTAC more easily leading to differences in morphology depending on FA content.