

CHAPTER V

CONCLUSIONS

1. The hydrophobicity of calcium soap increases with increase in the hydrocarbon chain length.
2. Only calcium soap C_{22} which has the contact angle greater than 90° acts as the antifoamer in this system.
3. Bridging-dewetting antifoaming mechanism is proposed for this system.
4. Above the solubility limit, the concentration of calcium soap has no effect on the foaming properties of SDS solution.
5. SDS has tendency to precipitate with calcium ion in hard water and this has the effect on the foaming properties of this surfactant solution.
6. Added $NaHCO_3$ can reduce the ability in antifoming of calcium soap in the SDS solution.