

CHAPTER V

CONCLUSIONS

Temperature affects the coacervate extraction and the solubilization. As the temperature increases, the partition ratio of both surfactant and organic solutes, the chloroethanes, the fraction of organic solutes removed, and the solubility of organic solutes into micelles increase. The solubilization of 1,1,1-trichloroethane and 1,1,1,2-tetrachloroethane is higher than that of 1,2-dichloroethane because of their solubility in water. The more the water-insoluble solubilize, the more it solubilizes into the core of micelle.

The high partition ratio of the chloroethanes proved that the coacervate extraction technique could be applicable to the extraction and preconcentration of organic compounds, particularly those that needed to be monitored in water or soil samples.

The solute distribution coefficient of the chlorinated alkanes is similar for coacervate extraction compared to micellar solubilization for octylphenol polyethoxylate surfactants.