

## 6. CONCLUSION

The aim of this study was to test additivity of chemical compounds in distribution process between two phases and to compare distribution coefficients  $K_{\text{mix}}$  for different molar ratio of mixture with acute toxicity index EC50 gained on oligochaeta *Tubifex tubifex*.

Mixtures of organic solvents ethanol, benzene, aniline and nitrobenzene were studied. Deviations from additivity were found for distribution coefficients of all tested mixtures. The most significant deviation exhibited benzene – ethanol mixture. The lowest deviations were observed for mixture ethanol – aniline.

The results obtained indicate that the partition coefficient  $K_{\text{mix}}$  behave similarly as acute toxicity. Definitely it is for benzene – ethanol mixture. It is possible to suppose that this parameter might be used for estimation of changes in acute toxicity of mixtures.

The aim of the second part of the thesis was to study how distribution of chemicals changes with concentration and composition of mixture. Variations in distribution of mixture components between gaseous and aqueous phase were found. The highest deviations were found for benzene – ethanol and benzene – eniline mixtures. No deviation was found for mixture aniline – nitrobenzene. Deviations were not as significant as in first part of study. Dependences of distribution coefficient on composition and concentration of solutions of mixtures were not observed.