

## Transport and separation through bulk liquid membrane of some biologic active compounds

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**Abstract** Transport through liquid membranes of various chemical species is a viable method for different applications in analytical or technological domain. This paper presents the transport and separation results of two compounds of pharmaceutical importance: salicylic acid and aspirin, using bulk liquid membrane technique. We studied the effect of the feed source and receiving phase pH on the transport efficiency of the two compounds through chloroform membrane. These results were correlated with speciation diagrams of salicylic acid and aspirin. The speciation diagrams shows that in these pH conditions, for aqueous phase of the membrane system, the two compounds are mostly undissociated form and therefore active for transport. In this system it can be achieve separation of the two compounds, salicylic acid and aspirin, using a suitable complexing agent in the feed source such as  $\text{Fe}^{3+}$ . In this way salicylic acid forms an inactive complex structure for transport while aspirin crosses the membrane and it is recovered in a percentage of 80% in the receiving phase membrane system.

*Keywords:* salicylic acid, acetylsalicylic acid, pertraction bulk liquid membrane

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