



STUDY OF THE SEPARATION PROCESS OF TARTARIC ACID BY ION-EXCHANGE WITH SOLID ANIONITES AMBERLITE IRA-67 AND AMBERLITE IRA-410

Gheorghe Duca¹, Natalia Marchitan², Aliona Mereuța^{2*}, Herbert G. Boechzelt³

¹Academy of Sciences of Moldova, 1 Stefan cel Mare Ave., MD-2001, Chisinau, Republic of Moldova

²Moldova State University, Faculty of Chemistry and Chemical Technology, Department of Ecological and Industrial Chemistry,
60 Mateevici str., MD-2009, Chisinau, Republic of Moldova

³Joanneum Research Forschungsges.m.b.H, Austria

Abstract

The present work describes an investigation of process of ion-exchange separation of tartaric acid in model systems. These investigations will be used for the separation of tartaric acid from secondary wine products. Their valorisation allows obtaining valuable compounds, as well as decreasing the huge quantities of wastes accumulated at wine making factories.

As ionic exchangers, there have been used weakly basic anion exchanger Amberlite IRA-67 (tertiary functional amine groups) and strongly basic exchanger Amberlite IRA-410 (quaternary functional amine groups). The following parameters of the ion-exchange process have been varied: concentration, temperature and pH of the tartaric acid solution and the stirring time in static systems, and the work intervals have been established. Thus, the highest rate of separation obtained in the given conditions is of 100 % for Amberlite IRA-410 and 99,88 % for Amberlite IRA-67.

Key words: tartaric acid, ion-exchange, Amberlite IRA-410, Amberlite IRA-67

* Author to whom all correspondence should be addressed: e-mail: aliona_mereuta@yahoo.com. Phone: 373-22-577796, Fax: 373-22-577553