



Solubility of Losartan Potassium in Several Mono-Solvents at Different Temperatures

Shadi H. EGHRARY ¹, Reza ZARGHAMI ¹ & Abolghasem JOUYBAN ^{1,2*}

¹ *Pharmaceutical Engineering Laboratory, School of Chemical Engineering, College of Engineering, University of Tehran, P.O. Box 11155/4563, Tehran, Iran*

² *Drug Applied Research Center and Faculty of Pharmacy, Tabriz University of Medical Sciences, Tabriz 51664, Iran.*

SUMMARY. The solubilities of losartan potassium in eight solvents; 1,4-dioxane, acetonitrile, propylene glycol, N-methyl-2-pyrrolidone, 1-butanol, 1-hexanol, 1-heptanol, and 1-octanol, were measured at temperatures ranging from 293.2 to 318.2 K at atmospheric pressure using shake-flask method of Higuchi and Connors. N-methyl-2-pyrrolidone dissolved the highest amount of losartan potassium and 1,4-dioxane possessed the lowest solubilization power among the investigated solvents. The generated data was used to calculate the thermodynamic parameters of the system using the modified van't Hoff equation and the Gibbs free energy data was correlated using Abraham solvation parameters.

KEY WORDS: Losartan potassium, Solubility, Thermodynamics.

* Author to whom correspondence should be addressed. *E-mail:* ajouyban@hotmail.com, jouyban@ut.ac.ir