

COMPARATIVE ANALYSIS OF THERMAL PROPERTIES OF TWO TYPES OF β -LACTOGLOBULIN A AND B

MEHRAN AGHAIE¹ & ZOHREH SAADATI²

¹Faculty of Chemistry, North Tehran Branch, Islamic Azad University, Tehran, Iran

²Department of Chemistry, Omidiyeh Branch, Islamic Azad University, Omidiyeh, Iran

ABSTRACT

In this paper we have addressed to a comparative analysis of thermal denaturation properties of β -lactoglobulin types A and B. The analysis has been carried out in the absence and presence of some osmolytes and polyols with various concentrations at pH= 2.0. Our interpretation showed that the ΔG_D° protein is function of sugar concentration and increased with increasing sugar concentration . On the other hand, ΔH_m of two types lactaglobulin has an insignificant dependence on the sugar concentrations . Estimated denaturation temperatures are 351.0 K and 348.2 K for A type and B type respectively.

KEYWORDS: Protein Stability, Sugar Osmolytes, Thermal Denaturation, β -Lactoglobulin Types A and B