

PECULIARITIES OF THE DIFFUSION PROCESS
IN DILUTE WATER-TREHALOSE SOLUTIONS

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S u m m a r y

In the present work, the main attention is focused on the temperature dependence of the diffusion coefficient D in dilute water-trehalose solutions. It is shown that the peculiarities of this phenomenon are mainly connected with the destruction of the water H-bond network in the thin layer around admixture particles and the appearance of a new contribution to the potential of their interactions. As a result, the last changes its sign, transforming from the attractive to repulsive potentials when temperature increases. The consecutive description of all factors, influencing the temperature dependence of D , is given.