

TIME EFFECTS IN THE SOLUTIONS OF GLUCOSE AND FRUCTOSE

We proposed a new method for studying the process of generation of inhomogeneities in an aqueous solution by dissolving of glucose. In crystalline form the molecules of glucose are in the form of a ring. In the process of dissolution the ring opens up and turns into a chain structure then it forms in the ring again. During the achieving of equilibrium, occurs change of the optical activity of glucose solution in water. This occurs because the different forms have different values of optical activity. After equilibration optical activity of glucose solution becomes constant. This phenomenon is called Mutarotation. Water molecules form aggregates around molecules of glucose whose dimensions are close to the wavelength of light. Also after dissolving glucose in water we can observe light scattering on the aggregates.

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Track Classification: Medical Physics