4.6.3 REDUCING THE SOLUTION FREEZING TEMPERATURE The phase diagram of pure water was previously studied.The quantitative effect of concentration on lowering the freezing temperature of aqueous solutions is described by the following expression: AT = Kk(H20) o Cm where Kk(H20) – is the cryoscopic constant of the solvent.In accordance with Raoul's law, the saturated vapor pressure above the solution decreases; in the phase diagram, this leads to the fact that the triple point moves not only down (to the region of lower pressures), but also to the left.In the pressure–temperature coordinates, the diagram shows the state of aggregation of water and the conditions under which phase transitions occur – melting and boiling of a liquid.The freezing (curing) of the liquid solution occurs at the triple point (indicated by the letter O in Fig.4.20.4.20.

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