

Calculation of Thermodynamic Properties of Water in the Baipazine Reservoir

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The analysis of thermodynamic parameters of solutions represents an urgent task in connection with conditions of synthesis of new materials. Knowledge such as sizes, material enthalpy, their entropy, temperature of decomposition, etc. allows predictions to explore possible ways of collection, areas of mixture and mutual solubility of the components. It also allows the determination of an interval of temperature in which the existence of connections of initial components is probable. In the present job, the account of the thermodynamic parameters of water of the pool of the Baipazine reservoir is carried out. On the basis of a constant of balance of chemical reactions were designed equilibrium partials of pressure gaseous of components in a temperature range 300-600 K at the certain initial pressure in system. The basic reactions previously were defined which are possible between components in the solutions, chosen by us. In the given job the review experimental and theoretical also is given. Jobs till thermodynamic properties of water in wide area of parameters of a condition. Early on, a large amount of research of the thermodynamic characteristics of water and water pairs was done. From them the results of experimental and theoretical research density, enthalpy, entropy of energy Helmholtz and Hips are given. For measurement of the density of water and water pairs, a hydrostatic weighing method was used, and for the measurement of the capacity of water a monotonous regime method was used. A general relative error of density measurement and capacity of researched substances at confidential probability 95.0% are accordingly equal to 0.1 and 2.6 %. It is established that with growth of temperature the density of water decreases and with an increase the pressure is increased.