

CALCULATION OF EQUILIBRIUM  
CONSTANT FOR DIMERIZATION OF HEAVY  
WATER MOLECULES IN SATURATED VAPOR

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S u m m a r y

The magnitude and the temperature dependence of the equilibrium constant of dimerization of heavy water molecules in saturated vapor in terms of the second virial coefficient of the equation of state have been determined. An expression is found for the equilibrium dimerization constant of water vapor molecules, which contains terms involving the monomer–monomer, monomer–dimer, and dimer–dimer interaction. The obtained results are compared with experimental data. The equilibrium constant of dimerization in heavy water vapor is shown to exceed that in light water vapor within the whole temperature interval.