

A GRAVITATIONAL EFFECT IN THE MODEL
OF A GAS OF FLUCTUATIONS NEAR THE
CRITICAL POINT

A.D. Alekhin, B.Zh. Abdikarimov, E.G. Rudnikov

Taras Shevchenko Kyiv University, Faculty of Physics
(6, Academician Glushkov Prosp., Kyiv 03022, Ukraine)

S u m m a r y

Within the framework of the modern fluctuation theory of phase transitions based on the model of gas density fluctuations near the critical point, the calculations of gradients of the internal field in an inhomogeneous liquid are carried out. It is shown that a high-altitude change of this field and a magnitude of the 'gravitational effect' depend on the critical temperature of the substance and considerably exceed a change of hydrostatic pressure.