

INFLUENCE OF GRAVITATION ON THE HEAT
CAPACITY OF LIQUIDS IN THE CRITICAL
REGION

K.O. Chalyi

Taras Shevchenko Kyiv National University,
Faculty of Physics
(6, Academician Glushkov Prosp., Kyiv 03127, Ukraine;
e-mail: kirchal@univ.kiev.ua)

S u m m a r y

The theoretical calculation of the heat capacity of a one-component liquid in a gravitational field near the critical point is carried out. The shift of the temperature, which corresponds to the maximum of the averaged-over-height heat capacity of a spatially inhomogeneous liquid, relative to the critical temperature of a homogeneous liquid in the absence of an external field is determined. The specific calculations are executed for the vicinities of a critical isohore and a critical isotherm.