

Surface tension calculation of QGP under one loop correction at finite chemical potential

The surface tension under one loop correction at finite chemical potential is calculated. Due to the effect of the chemical potential in this one loop correction, the formation of stable bubble/droplet is obtained with the value of quark and gluon parametrization in the range of $\gamma_q = 1/8$ and $24\gamma_q$ less than and equal to γ_g less than and equal to $30\gamma_q$. It implies that the fluid dynamics of the quark, anti-quark and gluon exist with the stable and unstable droplets depending on the different quark and gluon parameter values. Such phenomenological parameters can induce the droplet formation of QGP and it may stabilize the droplet depending on their values and form smaller droplets with the inclusion the chemical potential.

Due to the smaller in the size of droplet, it enhances in the stability of surface tension calculation. So the surface tension is improved with the effect of chemical potential and enhance to give the evidence of existence of QGP.

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