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In-medium properties of B_0 and B_{s0} mesons in hot and dense strange hadronic medium.

We investigate the effect of temperature, strangeness fraction and density of the medium on the in-medium properties of the B_0 and B_{s0} mesons using QCD sum rules and chiral SU(3) model. We focus on the evaluation of the in-medium masses and decay constants of above scalar B_0 and B_{s0} mesons. In-medium light quark condensates,$\langle \bar{q}q \rangle_{\rho_B}$, strange quark condensates $\langle \bar{s}s \rangle_{\rho_B}$, and gluon condensates $\left\langle \frac{\alpha_s}{\pi} G^a{}_{\mu\nu} G^{a\,\mu\nu} \right\rangle_{\rho_B}$ needed in QCD sum rule calculations are evaluated using chiral SU(3) model. These results are important in order to understand the production Υ state in heavy ion collision experiments, and the possibility on the formation of B-N bound states. Furthermore, these results may be verified from the possible outcomes of the future experiments like CBM and PANDA under the FAIR facility. We also compare the results of the present investigation with the available data.

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