

Freeze-out curve using the hybrid UrQMD event generator and HRG models

We have calculated energy dependence of various particles ratios using hybrid UrQMD event generator considering two different phase transitions, namely crossover and first order. The results are taken as experimental inputs in comparison with the hadron resonance gas (HRG) model calculations and all available various experimental measurements. From this comparison, we have drawn the freeze out curve at different energies from 4 GeV to 200 GeV using (χ^2 -fit method) in the considered two phase transitions. It is noticed that the estimated freeze out parameters from the hybrid UrQMD generator in the considered two phase transitions are almost indistinguishable along the freeze out curve.

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