STRANGENESS ENHANCEMENT AT THE HADRONIC CHEMICAL FREEZE-OUT

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S u m m a r y

The chemical freeze-out of hadrons created in the high energy nuclear collisions is studied within a realistic version of the hadron resonance gas model. The chemical non-equilibrium of strange particles is accounted via the usual γ_s factor, which gives us an opportunity to perform a high quality fit with $\chi^2/\mathrm{dof} \simeq 63.5/55 \simeq 1.15$ of the hadronic multiplicity ratios measured from the low AGS to the highest RHIC energies. In contrast to the previous findings, we observe the strangeness enhancement at low energies instead of a suppression. In addition, the performed γ_s fit allows us to achieve the highest quality of the Strangeness Horn description with $\chi^2/\mathrm{dof} = 3.3/14$. For the first time, the top point of the Strangeness Horn is perfectly reproduced, which makes our theoretical horn as sharp as an experimental one. However, the γ_s fit approach does not sizably improve the description of the multistrange baryons and antibaryons. Therefore, an apparent deviation of the multistrange baryons and antibaryons from the chemical equilibrium requires a further explanation.