

SEPARATE CHEMICAL
FREEZE-OUT OF STRANGE PARTICLES
WITH CONSERVATION LAWS

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S u m m a r y

The Hadron Resonance Gas Model with two freeze-outs connected by the conservation laws is considered. We are arguing that the chemical freeze-out of strange hadrons should occur earlier than the chemical freeze-out of non-strange hadrons. The hadron multiplicities measured in the heavy ion collisions for the center-of-mass energy range 2.7–200 GeV are described well by such a model. Based on a success of such an approach, a radical way to improve the Hadron Resonance Gas Model performance is suggested. Thus, we suggest to identify the hadronic reactions that freeze-out noticeably earlier or later than most of the others reactions (for different collision energies they may be different) and to consider a separate freeze-out for them.