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Baryon resonance yields after QGP hadronization INGA KUZNETSOVA, JOHANN RAFELSKI, University of Arizona — We study the yields of $\Delta(1232)$, $\Sigma(1385)$ and $\Lambda(1520)$ baryon resonances in the framework of a kinetic master equations for the case of entropy rich QGP fast hadronization leading to initial above chemical equilibrium yields of hadrons. In this case the resonance yield in a rapidly expanding system does not follow the chemical equilibrium yield as function of time. We find that a significant additional yields of $\Delta(1232)$, $\Sigma(1385)$ can be produced by the back-reaction of the over- abundance of the decay products of resonances. A more complex situation arises for a relatively narrow resonance such as $\Lambda(1520)$, which can be in part seen as a stable state, which is depopulated to increase the heavier resonance yield. We find that a suppression of yield of such resonances, as compared to statistical hadronization model, is possible. The pattern of deviation of hadron resonance yields from expectations based on statistical hadronization model are another characteristic signature for a fast hadronization of entropy rich QGP. The total yields of the ground state baryons used in analysis of data (such as N, Λ) are not affected. The results are in agreement with yields of these resonances reported by RHIC experiments.

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