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Heavy Flavor Hadrons in Statistical Hadronization of Strangeness-rich QGP[1]

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We study b, c quark hadronization from QGP within the chemical nonequilibrium statistical hadronization model. The important final state nonequilibrium feature of this study is that we take into account the high strangeness and entropy content of QGP, conserving strangeness and entropy yields at hadronization. Presence of an excess of entropy, and strangeness, influences the final population of heavy flavor mesons and baryons in a fast transition between QGP and HG phases: in this case final heavy hadron yields are produced at the physical conditions of QGP breakup. We show how a given charm and/or bottom yield is distributed among different heavy flavor species (non-strange and strange heavy mesons, baryons, multi-heavy mesons and baryons). The high strangeness content favors strange heavy hadrons yields, resulting in a relative suppression of non-strange (multi)heavy hadrons yields, the suppressed J/Ψ yield being of particular interest.

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