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Deconfinement energy threshold: analysis of hadron yields at 11.6 *A* GeV JEAN LETESSIER, LPTHE-Paris 7, JOHANN RAFELSKI, University of Arizona, GIORGIO TORRIERI, McGill University — We analyze within the statistical hadronization model the totality of 4π-hadron yields obtained at the AGS in the range 11–11.6 A GeV, including in the analysis the recently reported ϕ, and the indirectly evaluated $\overline{\Lambda}/\bar{p}$. Allowing for the chemical non-equilibrium at hadronization, and introduction into the study of (multi)strange hadrons are the key ingrediants of the analysis pointing to possible deconfinement at top AGS reaction energy scale. The high observed ϕ/K^+ yield pushes the chemical freeze-out condition to $T = 142 \pm 3$ MeV and $\mu_{\rm B} = 708 \pm 60$ MeV while the quark phase space is found to be greatly undersaturated, with $\gamma_q = 0.35 \pm 0.27$ and $\gamma_s - 0.23 \pm 0.18$. We find that strangeness per entropy $s/S < 0.075$ in relevant chemical conditions, including equilibrium. This is nearly 4 times lower than at RHIC. We study multistrange particle ratios of interst to future experimental studies of low energy deconfinement.

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