

Contribution ID: 54 Type: Contributed Talk

Transverse-momentum spectra of strange particles produced in Pb+Pb collisions at sqrt(sNN) = 2.76 TeV in the chemical non-equilibrium model

Thursday 30 June 2016 11:40 (20 minutes)

We analyze the transverse-momentum spectra of strange hadrons produced in Pb + Pb collisions at the collision energy $\sqrt{sNN}=2.76$ TeV for different centrality bins. Our approach combines the concept of chemical nonequilibrium with the single-freeze-out scenario. The two ideas are realized in the framework of the Cracow model, whose thermodynamic parameters have been established in earlier studies of the ratios of hadron multiplicities. The geometric parameters of the model are obtained from the fit to the spectra of pions and kaons, only. Using these parameters, we obtain an excellent description of the spectra of protons and the KS0,K*(892) 0 , and φ (1020) mesons. A satisfactory description is obtained for the Λ , Ξ , and Ω hyperons.

Based on

[1] V. Begun and W. Florkowski, Phys.Rev. C90 (2014) 014906

[2] V. Begun and W. Florkowski, Phys.Rev. C90 (2014) 054912

[3] V. Begun and W. Florkowski, Phys.Rev. C91 (2015) 054909

Primary author: FLORKOWSKI, Wojciech (Institute of nuclear Physics, Krakow)

Co-author: BEGUN, Viktor (UJK)

Presenter: FLORKOWSKI, Wojciech (Institute of nuclear Physics, Krakow)

Session Classification: Particle Production