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PHENIX results on J/ψ from small systems

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Charmonium is considered a valuable probe to study the medium produced in collisions involving nuclei and/or nucleons. With the recent observations of collective behavior of produced particles in small system collisions, measurements of the modification of charmonium in these systems have become increasingly relevant. In this talk we will present the PHENIX results of J/ψ measurements at forward and backward rapidities ($1.2 < |y| < 2.2$) in p+Al, p+Au and 3He+Au at $\sqrt{s} = 200$ GeV beam energy. These data complement previously published d+Au data, and comprise the most extensive study of J/ψ in small systems including system size, centrality, transverse momentum and rapidity dependencies. The observed modifications of J/ψ production depends strongly on target size but is very similar for different projectiles. This presentation will show the conclusion of this experimental effort and discuss the implication on the current understanding of charmonia interaction with nuclear media.

Collaboration (if applicable)

Track

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