

Hadron induced Charmonium production

We study the excitation function of the low-lying charmonium states: J/ψ , $\psi(3686)$ in p , π and \bar{p} , Au collisions taking into account their in-medium propagation. The time evolution of the spectral functions of the charmonium state is studied with a BUU type transport model. We calculated the charmonium contribution to the dilepton spectrum. We study how the short range correlations in nuclei effect the excitation function of J/ψ and show that for $\psi(3686)$ production there is a good chance to observe its in-medium modification with good resolution detectors. The energy regime will be available in JPARC, PANDA and CBM.

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