

Charmonium and open-charm production in p-A collisions at the SPS

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p-A collisions provide an essential reference for the study of J/psi suppression in heavy-ion data since they allow to evaluate cold nuclear matter effects. These include initial state effects like shadowing and parton energy loss and final state effects like J/psi breakup in the collisions with cold nuclear matter.

To evaluate these, NA60 has measured J/psi production in p-A collisions at SPS energies with seven nuclear targets. In this analysis the J/psi cross section has been compared with open-charm production that is detected in the NA60 experiment through the simultaneous semi-muonic decay of D meson pairs. The comparison of the production of closed-charm with its natural reference allows to have some insight on how the interplay of the different processes gives rise to the observed (effective) J/psi suppression.

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