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Charged Kaon Reconstruction in Au+Au-Collisions at 1.23 AGeV with HADES

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In the energy regime of 1-2 AGeV, strangeness is produced below its nucleon-nucleon production threshold, this results in a steep excitation function. Due to their quark content, positive and negative kaons have different nucleon-nucleon production thresholds. Furthermore K^+ are supposed to feel a repulsive kaon nucleon potential, while K^- can be resonantly absorbed by nucleons.

HADES, installed at GSI Helmholtzzentrum fuer Schwerionenforschung in Darmstadt, Germany, provides excellent capability to measure rare kaon signals. In April and May 2012, 7.3 billion Au(1.23 GeV per nucleon)+Au collisions have been recorded by HADES. In this contribution preliminary particle spectra of charged kaons will be presented. The results will be discussed with respect to the production mechanism.

On behalf of collaboration:

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