

Dragging D mesons by hot hadrons

We evaluate the drag and diffusion coefficients of a hot hadronic medium consisting of pions, nucleons, kaons and eta using open charm mesons as a probe. The interaction of the probe with the hadronic matter has been treated in the framework of effective field theory. It is observed that the magnitude of both the transport coefficients are significant, indicating substantial amount of interaction of the heavy mesons with the thermal hadronic system. The results may have noticeable impact on the experimental observable like the suppression of single electron spectra originating from the decays of heavy mesons in nuclear collisions at relativistic energies.

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