

Recent measurements and prospects from analysis of fixed-target collisions at LHCb

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The LHCb spectrometer has the unique capability to function as a fixed-target experiment by injecting gas into the LHC beampipe while proton or ion beams are circulating. The resulting beam-gas collisions cover an unexplored energy range that is above previous fixed-target experiments, but below the RHIC or LHC collider energies. Here we present recent results on open charm, J/ψ , and $\psi(2S)$ production from pNe and PbNe fixed-target collisions at LHCb. Also, the status of the commissioning and the prospects for measurements of hadron spectroscopy and hadron structure for the upgraded fixed-target system, SMOG2, will be presented.

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