SMOG: a high-density gas target experiment at LHCb

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Owing to the injection of gas into the LHC beampipe while multi-TeV proton or ion beams are circulating, the LHCb spectrometer has the unique capability to function as the as-of-today highest-energy fixed-target experiment. The resulting beam-gas collisions cover an unexplored energy range that is above previous fixed-target experiments, but below RHIC or LHC collider energies. In this contribution, recent results for hadron production and polarization from beam-gas fixed-target collisions at LHCb are presented. Also, the upgrade of the fixed-target system, named SMOG2, and the preliminary results from the first collected data, will be discussed.

Alternate track

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Yes

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