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Prompt D^+ and D_s^+ production in 8.16TeV pPb collisions at LHCb

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The enhanced production of strangeness was first proposed as a signature of the quark gluon plasma creation in heavy ion collisions. Recently, increased strangeness production is also observed experimentally in high multiplicity small systems such as pp and pPb collisions, where formation of QGP is not expected. In this study, production of prompt D^+ and D_s^+ in pPb collisions is measured with the LHCb detector at center-of-mass energy $\sqrt{s_{NN}} = 8.16$ TeV. LHCb's unique forward coverage together with its precise tracking and vertexing provides the possibility to measure the charm hadrons at very low transverse momentum with high accuracy. In addition to the recent results of prompt D^+ and D_s^+ production, we will also present D_s^+ to D^+ production ratio as a function of multiplicity and its comparisons to theoretical models.

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