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D* Production in diffractive DIS at HERA

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Measurements of open charm production are presented in diffractive deep inelastic scattering (5 < Q2 < 100 GeV2), based on HERA data recorded at √s = 319 GeV with an integrated luminosity of 281 pb-1. The event topology is given by ep ⟶ eXY, where the system X, containing at least one D(2010) meson, is separated from a leading
low-mass proton dissociative system Y by a large rapidity gap. The D candidates are reconstructed fully in the D*+ ⟶ D0 π+ ⟶ (K- π+) π+ (+C.C.) decay channel. The measured differential cross sections are compared at the level of stable hadrons with next-to-leading order QCD predictions obtained in the massive scheme, where the charm quark is produced via the boson-gluon fusion, using diffractive parton densities previously obtained by H1 from fits of the inclusive diffractive cross sections.

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