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Results (and future prospects) of the CMS experiment in photon-induced collisions in p-Pb collisions

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Exclusive vector meson (Upsilon and ρ^0) photoproduction is studied in ultra-peripheral pPb collisions at $\sqrt{s_{NN}} = 5.02$ TeV with the CMS experiment at the LHC. The cross sections are measured as a function of the photon-proton centre-of-mass energy, extending the energy range explored by H1 and ZEUS Experiments at HERA. In addition, the differential cross sections ($d\sigma/d|t|$), where $|t| \approx p_T^2$ is the squared transverse momentum of produced vector mesons, are measured and the slope parameters are obtained. The results are compared to previous measurements and to theoretical predictions.

Finally, prospect for further measurements of vector meson production that can be performed using the 2016 pPb collision data at 8 TeV to be collected at the end of the year are presented.

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