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Inclusive electron scattering in the resonance region at high Q^2

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Using Thomas Jefferson's National Accelerator Facility's 10.6 GeV beam
and the CLAS12 large solid angle spectrometer, inclusive electron proton cross sections were measured over a wide kinematic range from the pion threshold up to an invariant mass W of 2.55 GeV, for ten Q^2 bins between 2.5 and 10.4 GeV^2. These results were validated against existing world data set in the overlap region and compared with
the resonant contributions deduced from exclusive meson electroproduction data measured with the CLAS at Q^2<5.0 GeV^2. Resonance-like structures are seen in the range of Q^2<10 GeV^2 in the CLAS12 inclusive electroproduction data.

This new data set indicates the opportunity to extend the information on the Q^2 evolution of the nucleon electroexcitation amplitudes to Q^2~ 10 GeV^2 and, looking forward to the JLab energy upgrade, even towards larger values of Q^2.

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