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The J/ψ-007 Experiment: A Search for the LHCb Charmed Pentaquarks in Hall C at Jefferson Lab[1] BURCU DURAN, Temple University/Argonne National Laboratory, SYLVESTER JOOSTEN, Argonne National Laboratory, E12-16-007 COLLABORATION — The Jefferson Lab experiment E12-16-007 ($J/\psi-007$) ran in February 2019 and made a measurement of the elastic J/ψ photo-production cross section as a function of proton momentum transfer variable t and photon energy E_γ in the region where all charm pentaquark states reported by the LHCb collaboration were discovered. The experiment has been performed using a bremsstrahlung beam generated by a 10.6 GeV incident electron beam traversing a copper radiator upstream of a hydrogen target in Hall C. The two high momentum spectrometers of Hall C, HMS and SHMS have been used to detect the e^+e^- dilepton J/ψ decay pair in coincidence. In combination with the high incident photon flux, the optimized spectrometer settings provided the preferred kinematics where the s-channel resonant pentaquarks signals, if they exist, should strongly dominate over those of the regular t-channel J/ψ production. We shall present results from the $J/\psi - 007$ experiment and either confirm or refute the true resonant nature of these states.

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