

Abstract Submitted  
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**Nuclear Transparency of Kaons ( $K^+$ )**<sup>1</sup> NURUZZAMAN, Mississippi State University — Quantum Chromo Dynamics (QCD) is the fundamental theory of the strong force. The transition from nucleons and mesons to the quarks and gluons of QCD can be studied by looking for the onset of phenomena predicted by QCD, such as Color Transparency (CT). CT is the disappearance of final (initial) state interactions for hadrons produced in exclusive processes at high momentum transfers. An experiment to measure the transparency of pions, in search of CT was completed in Dec 2004 at JLab in Hall C. The same set of data also has a considerable sample of kaons that can be used to study the transparency of kaons. Kaon transparency via electro-production has not been studied before and will provide useful information regarding the nature of the transition from quarks to hadrons. In addition, this data helped us investigate the anomalous strangeness transparency reported for kaon-nucleus scattering data. We have extracted the kaon transparency by comparing the electro-production of kaons from various nuclear targets to electro-production from hydrogen which is similar to the technique used to extract pion transparency. Preliminary results from this analysis will be presented.

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