

Abstract Submitted
for the APR17 Meeting of
The American Physical Society

Probing for high momentum protons in ${}^4\text{He}$ via the ${}^4\text{He}(e,e'p){}^3\text{H}$ reaction. FATIHA BENMOKHTAR , Duquesne University, Pittsburgh, PA, SOPHIA IQBAL, NATHALIAN SEE , California State University, Los Angeles, DREW FINTON, Duquesne University, Pittsburgh, PA, KONRAD A. ANIOL , California State University, Los Angeles, MARTIN IVANOV, Institute for Nuclear Research and Nuclear Energy, Bulgarian Academy of Sciences, Sofia 1784, Bulgaria., JOSE M. UDIAS, Complutense University de Madrid, Spain., DOUGLAS HIGINBOTHAM, Thomas Jefferson National Accelerator Facility, Newport News, VA , HALLA SRC COLLABORATION COLLABORATION — The structure and dynamics of ${}^4\text{He}$ can be studied through ${}^4\text{He}(e,e'p)$ coincidence measurements at high momentum transfers. Using the Hall A high resolution spectrometers and a cryogenic ${}^4\text{He}$ target, the short range correlation E07-006 and E08-009 experiments held in Hall A of Jefferson Lab measured the entire range of missing momentum from 0.0 GeV/ c to 0.9 GeV/ c . Experimental cross sections for the 3-body breakup ${}^4\text{He}(e,e'p){}^3\text{H}$ up to $P_{miss} = 0.632\text{GeV}/c$ at $x_B = 1.24$ and $Q^2 = 2(\text{GeV}/c)^2$ are reported. The data are compared to Relativistic Distorted Wave Impulse Approximation (RDWIA) calculations.

Fatiha Benmokhtar
Duquesne University

Date submitted: 30 Sep 2016

Electronic form version 1.4