

Abstract Submitted  
for the APR05 Meeting of  
The American Physical Society

**Two-Body Photodisintegration of  ${}^4\text{He}$  into  $t + p$**  NAWAL BEN-  
MOUNA, The George Washington University, CLAS COLLABORATION — The  
photodisintegration of  ${}^4\text{He}$  into  $t$  and  $p$  is being studied using the CEBAF Large  
Acceptance Spectrometer (CLAS) at the Thomas Jefferson National Accelerator Fa-  
cility. Real photons produced with the Hall B bremsstrahlung tagging system in the  
energy range from 0.35 to 1.55 GeV were incident on a cryogenic liquid  ${}^4\text{He}$  tar-  
get. Tritons and protons were detected in coincidence in the CLAS which gives a  
large angular coverage. Kinematic cuts were applied to select the reaction channel  
of interest,  ${}^4\text{He}(\gamma, tp)$ . Differential cross sections for this process will be presented.  
These data will constitute the first investigation of  ${}^4\text{He}$  photodisintegration into  $t + p$   
for incident photon energies above 0.4 GeV.

Nawal Benmouna  
The George Washington University

Date submitted: 13 Jan 2005

Electronic form version 1.4