

Abstract Submitted  
for the GEC12 Meeting of  
The American Physical Society

**Electronic excitation of methanol by low energy electrons**

JOSHUA TANNER, LEIGH HARGREAVES, MURTADHA KHAKOO, California State University Fullerton — Measurement of absolute differential and integral cross sections for the lowest lying electronically excited states of methanol will be presented. These cross sections were measured using a crossed electron gas beam spectrometer incorporating a moveable gas beam. The data were normalized against the elastic scattering signal, with the elastic cross sections previously determined in our laboratory [1] using the relative flow method with an aperture-type gas collimator [2]. These data are, to the best of the author's knowledge, the first reported study of these cross sections and have important implications for dosimetry modeling of radiation therapy.

[1] M.A. Khakoo *et al.*, *Phys. Rev. A*, **77**, 042705 (2008)

[2] M.A. Khakoo *et al.*, *J. Phys. B: At. Mol Phys.*, **40**, 3601 (2007)

Leigh Hargreaves  
California State University Fullerton

Date submitted: 18 Jun 2012

Electronic form version 1.4