

Abstract Submitted
for the TSF05 Meeting of
The American Physical Society

Target-thickness Dependence of Bremsstrahlung from Solid Al and Au Films SCOTT WILLIAMS, C.A. QUARLES, TCU, Fort Worth TX 76129
— The results of a study of the target thickness-dependence of bremsstrahlung from solid films are presented, along with comparisons of the ratios of the data for different target thicknesses with the ratios obtained using the Monte Carlo code PENELOPE. The electron beam energy used in the experiments is ~ 55 keV and bremsstrahlung is observed at an angle of 90° . The targets used were made of gold and aluminum, with thicknesses ranging from $30 \mu\text{g}/\text{cm}^2$ (where single interaction conditions apply) to about twice the electron range (where a multiple interaction model applies). The purpose of the study is to observe the transition from thin to thick film spectra and to investigate whether the polarization bremsstrahlung contribution is suppressed in solid film targets.

Carroll Quarles
TCU

Date submitted: 15 Sep 2005

Electronic form version 1.4