

## Scott Williams

### Education

Ph.D., Texas Christian University (2007)

M.Sc., University of Texas at Dallas (2003)

B.Sc., University of North Texas (2002)

### Teaching Experience

Professor, Angelo State University (2019 – present)

Associate Professor, Angelo State University (2014 – 2019)

Assistant Professor, Angelo State University (2008 – 2014)

Visiting Assistant Professor, Texas Lutheran University (2007 – 2008)

### Peer-Reviewed Publications

Adamson, P., Williams, S., 2019. Effects of electron-beam irradiation on graphene oxide. *J. Undergrad. Rep. Phys.* 28, 6-9.

Adamson, P., Williams, S., 2018. Effects of microwave irradiation on multiwalled carbon nanotubes of different diameters. *J. Nanophotonics* 12, 046014.

Czarnecki, S., Williams, S., 2017. Measurements of the effective atomic numbers of minerals using bremsstrahlung produced by low-energy electrons. *Nucl. Instrum. Methods Phys. Res. Sect. B* 413, 27-30.

Czarnecki, S., Short, A., Williams, S., 2017. Measurements of the effective atomic numbers of alloys using thick-target bremsstrahlung intensities. *Phys. Proc.* 90, 41-46.

Czarnecki, S., Short, A., Williams, S., 2016. Z-dependence of thick-target bremsstrahlung produced by monoenergetic low-energy electrons. *Nucl. Instrum. Methods Phys. Res. Sect. B* 378, 54-58.

Czarnecki, S., Gonzales, D., Williams, S., 2015. Comparison of the bremsstrahlung absolute probability densities produced by experiment and PENELOPE for low-energy (keV) electrons incident on solid silver. *X Ray Spectrom.* 45, 100-102.

Ferguson, S., Bhatnagar, P., Wright, I., Sestric, G., Williams, S., 2015. Effects of microwave absorption on long and short single-walled nanotubes at  $10^{-6}$  torr. *Int. J. Nanosci.* 14, 1550025.

Ferguson, S., Johnson, J., Gonzales, D., Hobbs, C., Allen, C., Williams, S., 2015. Analysis of ZDDP content and thermal decomposition in motor oils using NAA and NMR. *Phys. Proc.* 66, 439-444.

Sestric, G., Ferguson, S., Wright, I., Williams, S., 2014. Angular distributions of X-rays emitted following  $L_3$  ionization of Au atoms by electron impact. *Radiat. Phys. Chem.* 102, 40-43.

Cavness, B., McGara, N., Williams, S., 2013. Spectra of radiation emitted from open-ended and closed carbon nanotubes exposed to microwave fields. *Int. J. Nanosci.* 12, 1350028.

Ferguson, S., McGara, N., Cavness, B., Gonzales, D., Williams, S., 2013. Spectra of radiation emitted by single-walled and multi-walled carbon nanotubes during multiple microwave irradiation and cooling cycles. *Int. J. Nanosci. Nanotechnol.* 4, 71-79.

Gonzales, D., Williams, S., 2013. Angular distribution of bremsstrahlung produced by 10-keV and 20-keV electrons incident on a thick Au target. *AIP Conf. Proc.* 1525, 114-117.

Cavness, B., Williams, S., 2013. Analysis of Russian kopecks (1877–1933) using X-ray fluorescence. *AIP Conf. Proc.* 1525, 741-744.

Williams, S., 2013. Polarizational Bremsstrahlung: A Review, in: Jang, J. (Ed.), *New Developments in Photon and Materials Research*. Nova Sci. Pub., New York, pp. 47-59.

Cavness, B., Heimbecker, J., Velasquez, J., Williams, S., 2012. X-ray fluorescence as a method of monitoring metal catalyst content during the purification of carbon nanotubes. *Radiat. Phys. Chem.* 81, 131-134.

Gonzales, D., Requena, S., Williams, S., 2012. Au  $L\alpha$  x-rays induced by photons from  $^{241}\text{Am}$ : comparison of experimental results and the predictions of PENELOPE. *Appl. Radiat. Isot.* 70, 301-304.

Gonzales, D., Cavness, B., Williams, S., 2011. Angular distribution of thick-target bremsstrahlung produced by electrons with initial energies ranging from 10 to 20-keV incident on Ag. *Phys. Rev. A* 84, 052726.

Gonzales, D., Requena, S., Davis, S., Williams, S., 2011. Angular distribution of K-shell X-rays produced by 29 keV electrons incident on Ag. *Nucl. Instrum. Methods Phys. Res. Sect. B* 269, 1333-1335.

Requena, S., Gonzales, D., Williams, S., 2011. Angular dependence of bremsstrahlung produced by 17.5-keV electrons incident on thick Ag. *Phys. Rev. A* 83, 022712.

Requena, S., Williams, S., 2011. Study of the angular distribution of photon-induced Au-target L X-rays. *Radiat. Phys. Chem.* 80, 629-631.

Requena, S., Williams, S., Quarles, C. A., 2010. A comparison of the bremsstrahlung yields from 53 keV electrons on gold targets produced by PENELOPE and experiment. *Nucl. Instrum. Methods Phys. Res. Sect. B* 268, 3561-3563.

Williams, S., Quarles, C. A., 2008. Absolute bremsstrahlung yields at  $135^\circ$  from 53-keV electrons on gold film targets. *Phys. Rev. A* 78, 062704.

Williams, S., Hayton, K., Quarles, C. A., 2007. Target thickness dependence of 50 keV electron bremsstrahlung. *Nucl. Instrum. Methods Phys. Res. Sect. B* 261, 184-188.

Williams, S., Haygood, R., Quarles, C. A., 2006. Target thickness dependence of bremsstrahlung from solid films. *Radiat. Phys. Chem.* 75, 1707-1710.

Haygood, R., Williams, S., Quarles, C. A., 2006. Bremsstrahlung from gas targets: Study of background processes. *Radiat. Phys. Chem.* 75, 1688-1692.

#### Affiliations

Member, American Physical Society