

CURRICULUM VITAE  
**Gene A. Mullins, Jr.**

---

**Address:**

Office: Tennessee Tech University  
PO Box 5055  
Cookeville, TN 38505  
(931)-372-3536

Home: PO Box 1325  
Cookeville, TN  
(931) 526-6927

**Education:**

- M.S. Analytical Chemistry. "Measurement of Semi-Volatiles in Used Natural Gas Engine Oil using Thermogravimetric Analysis."  
Tennessee Tech University, Cookeville, TN, December 2007
- B.S. Chemistry - ACS certified. Tennessee Tech University, Cookeville, TN, June 1979

**Professional experience:**

- 2010–2012 **Adjunct Instructor.** Nashville State Community College (Cookeville campus), General Chemistry, lecture and lab (1110)
- 2005 - **Laboratory Coordinator,** Tennessee Tech University
- 2004 **Adjunct Instructor.** Tennessee Tech University, General Chemistry, lecture (1010)
- 1979-2004 **Chemist,** Fleetguard, Inc.

**Publications and Patents:**

- Jones, Jordan; Swartling, Daniel; Lisic, Edward; Mullins, Gene. "Synthesis of a novel platinum(II) complex and investigation of its anticancer potential," Abstracts of Papers, 255th ACS National Meeting & Exposition, New Orleans, LA, United States, March 18-22, 2018 (2018), CHED-347.
- Pinto, Taylor; Mullins, Gene A.; Swartling, Daniel J. Synthesis using solar irradiation and spectral analysis of meso-tetraphenylporphyrins," Abstracts of Papers, 255th ACS

- National Meeting & Exposition, New Orleans, LA, United States, March 18-22, 2018 (2018), CHED-1009.
- Wells, Martha J. M.; Mullins, Gene A.; Bell, Katherine Y.; Da Silva, Allegra K.; Navarrete, Eileen M. Fluorescence and Quenching Assessment (EEM-PARAFAC) of de Facto Potable Reuse in the Neuse River, North Carolina, United States," *Environmental Science & Technology* (2017), 51(23), 13592-13602
- Agee, Brian M.; Mullins, Gene; Swartling, Daniel J. "Progress towards a more sustainable synthetic pathway to ibuprofen through the use of solar heating," *Sustainable Chemical Processes* (2016), 4, 8/1-8/9.
- Swartling, Daniel; Agee, Brian; Mullins, Gene. "Total solar synthesis of ibuprofen," *Abstracts of Papers, 251st ACS National Meeting & Exposition, San Diego, CA, United States, March 13-17, 2016* (2016), ORGN-765.
- Wells, Martha J.; Mullins, Gene A.; Bell, Katherine Y.; Da Silva, Allegra K.; Navarrete, Eileen M. "Spatial and temporal variability of excitation emission matrix (EEM) fluorescence spectra in a wastewater effluent impacted river," *Abstracts of Papers, 249th ACS National Meeting & Exposition, Denver, CO, United States, March 22-26, 2015* (2015), ENVR-229.
- Agee, Brian M.; Mullins, Gene; Swartling, Daniel J. "Use of solar energy for biodiesel production and use of biodiesel waste as a green reaction solvent," *Sustainable Chemical Processes* (2014), 2, 21/1-21/10.
- Agee, Brian M.; Mullins, Gene; Swartling, Daniel J. "Wolff-Kishner reduction reactions using a solar irradiation heat source and a green solvent system," *Abstracts of Papers, 247th ACS National Meeting & Exposition, Dallas, TX, United States, March 16-20, 2014* (2014), ORGN-612.
- Agee, Brian M.; Mullins, Gene; Swartling, Daniel J. "Friedel-Crafts Acylation Using Solar Irradiation," *ACS Sustainable Chemistry & Engineering* (2013), 1(12), 1580-1583.
- Wilson, James Ryan; Steelman, Keith; Phillips, Maxie; Mullins, Gene; Lisic, Edward C. "Synthesis and <sup>1</sup>H NMR characterization of a new series of quinoline-2-carboxaldehyde thiosemicarbazone compounds," *Journal of Undergraduate Chemistry Research* (2011), 10(1), 31-35.
- Wilson, J. R.; Steelman, K.; Phillips, M.; Mullins, G.; Lisic, E. C. "Synthesis and <sup>1</sup>H NMR characterization of a new series of quinoline-2-carboxaldehyde thiosemicarbazone compounds," *Journal of Undergraduate Chemistry Research* (2011), 10(1), 31-35.
- Ensor, Dale D.; Mullins, G. "Forensic chemistry or instrumental analysis," *Abstracts of Papers, 240th ACS National Meeting, Boston, MA, United States, August 22-26, 2010* (2010), CHED-326.
- Mullins, G.; Truhan, J. "Measurement of Semi-Volatiles in Used Natural Gas Engine Oil using Thermogravimetric Analysis," *International Journal of Engine Research* (2007), 8(5), 439-448.
- Mullins, G. A. "Instrumental Analysis and the Nonwoven Web," *TAPPI Nonwovens Conference, Orlando, FL* (1987)

Mullins, G. A. "Flat Sheet Performance Testing of Non-Woven Filter Media," TAPPI Nonwovens Symposium, Myrtle Beach, SC (1984)

Mullins, G. ; Dickerson, D. ; Ramsey-Idem, K. ; Currier, L. "Enhanced pleatability of meltblown media by ultrasonic processing," U.S. (2003), US 6585838 B1 20030701.

Henrichsen, M. P.; Haberkamp, W. C.; Mullins, G. A. "Melt-spun ceramic fiber composite high temperature filters for diesel exhaust systems," U.S. Pat. Appl. Publ. (2003), US 20030101701 A1 20030605.

Verdegan, B. M.; Schwandt, B. W.; Cady, D. R.; Mullins, G. A., Jr.; Currier, W. L. "Extended-life filter," Eur. Pat. Appl. (2001), EP 1118369 A1 20010725.

Mullins, G.; Jiang, Z.; Piccirilli, A. P. "Pressure-actuated radial air filter seal," PCT Int. Appl. (1996), WO 9612550 A1 19960502.

### **Presentations:**

Mullins, G. and Truhan, J. "Development of a Procedure to Measure Oil Sludge Content Using Thermogravimetric Analysis," technical presentation at STLE 61<sup>st</sup> Annual Meeting & Exhibition, Calgary, AB, Canada, May 2006

Mullins, G. and Truhan, J. "Characterization of Semi-Volatile Species in Used Natural Gas Engine Lubricating Oils," technical presentation at STLE 61<sup>st</sup> Annual Meeting & Exhibition, Calgary, AB, Canada, May 2006

### **Professional Activities and Societies:**

- Member – American Chemical Society
- Judge, Tennessee Tech University Student Research Day, 2016-2018