



LAUREN N. MUNDAY
STAFF CONSULTANT

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Ms. Lauren Munday is an analytical chemist with a background in small molecule analysis. Small molecule chemistry encapsulates many of the questions asked in a fire analysis and beyond along with volatile chemicals and ignitable liquids, drugs and metabolites, polymers, and many other common molecules. Some previous case work includes fire debris analysis, small scale testing, failure analysis of coatings, fuel contamination analysis, and drug analysis.

Ms. Munday manages the ESi Fuel Gas Odorant Analysis Program where odorant and composition analysis is performed for fuels such as: mercaptan and total sulfur levels, propane total hydrocarbon composition analysis, and further analysis using gas chromatography with mass spectrometry to further assess gas composition. She is the main chemist in charge of this fuel and odorant testing.

Her current work includes fire debris analysis, volatile liquid analysis, propane and fuel gas analysis, microanalysis, drug analysis, and general small molecule analysis techniques. Ms. Munday's analytical expertise includes gas and liquid chromatography, mass spectrometry, pulsed flame photometric detection, microscopy and microanalysis, and infrared spectroscopy. Ms. Munday is also certified in Dangerous Goods Shipping and a member of the National Association of Fire Investigators (NAFI).

Ms. Munday holds a Bachelor's degree from Loyola University-Chicago in biochemistry and completed her Master's degree in chemistry, specializing in analytical chemistry, at the University of Washington. She conducted research in the Forensics Research Lab at Loyola, investigations in organometallics and C-H bond activation, and focused on analytical theory and instrumental methods at the University of Washington.

Areas of Specialization

Instrumental Analysis
Fuel Gas and Odorant Analysis
Small Molecule Analysis
Fire and Explosion

Education

M.S., Chemistry, University of Washington, 2018

B.S., Biochemistry, Loyola University Chicago, 2017

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Positions Held

ESi (Engineering Systems Inc.), Seattle, WA

Staff Consultant, 2018 – Present

University of Washington - Department of Chemistry, Seattle, WA

Graduate Teaching Assistant, 2017 – 2018

Center for Teaching and Academic Excellence, Loyola University-Chicago, Chicago, IL

Supplemental Instructor and Peer Tutor, 2015 - 2017

Loyola University-Chicago - Department of Chemistry and Biochemistry, Chicago, IL

Undergraduate Research Assistant, 2015 - 2017