DEPARTMENT OF CHEMISTRY

Problem Solving with Chemical Instrumentation

Research Interests

- Problem solving with analytical instrumentation
- Instrumentation for mass spectrometry and ion mobility spectrometry
- MS/MS fragmentation of small molecules
- Low-cost fieldable sensors and instruments
- Multi-instrument data fusion for analytical confidence
- Instrument interfacing and control

Facilities

- The Shared Instrument Lab holds an extensive suite of instrumentation including GCMS, HPLC, TGA, DSC, FTIR, UV-vis, fluorescence, NMR, polarimetry, etc.
- Instrument training is available to S&T researchers
- Analysis as a service is available; non-profit as well as commercial clients are welcome

Contact Information:

- **Nathan D. Leigh, PhD**
- Director of the Shared Instrument Lab, Department of Chemistry
- Email: leighn@mst.edu
- Phone: 573-341-4397

Free consultations; collaborations welcome

Keywords

- Mass spectrometry, ion mobility , MS/MS, fragmentation, FTIR, NMR, spectroscopy, instrumentation, analyses

Some Recent Publications

- Le Thi H, Lin CH, Smeda RJ, Leigh ND, Wycoff WG, Fritschi FB Isolation and identification of an allelopathic phenylethylamine in rice *Phytochem*, **2014**, *108*, 109-121
- Bock AS, Leigh ND, Bryda EC Effect of Gsk3 inhibitor CHIR99021 on aneuploidy levels in rat embryonic stem cells *In Vitro Cell Devel Biol-Animal* **2014**, *50*(6), 572-579.
- Willett CD, Lerch RN, Lin CH, Goyne KW, Leigh ND, Roberts CA Identification of an atrazine-degrading benzoxazinoid in eastern gamagrass (Tripsacum dactyloides). *J Ag Food Chem* **2013**, *61*(34), 8026-8033

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