



# Environmental and Complex Analysis Laboratory (ECAL)

Dept of Chemistry and Biochemistry Urey Hall-Room 2112

## Mass Spectrometry Solutions

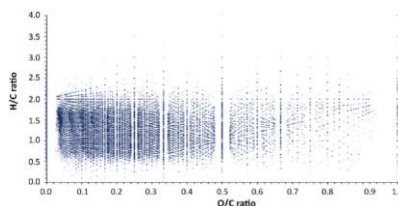


Targeted and untargeted analysis of a wide range of analytes in environmental and complex matrices.

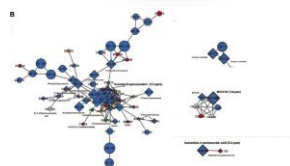
- Volatile and semivolatile organic species
- Metabolomics
- Monosacharrides

Multiple platforms for complex separations and analysis

- UHPLC, GC, IC, 2D-HPLC
- Orbitrap MS, Triple Quad MS, Ion Trap MS

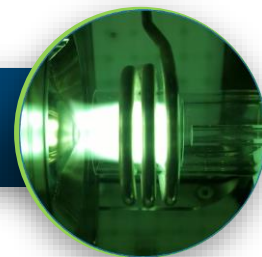


Example Orbitrap MS data



Example Molecular Network

## Quantitative Elemental Analysis



Trace level analysis (Parts per billion) of a wide range of elements. Previously analyzed samples from a wide range of systems including

- Nanoparticles
- Environmental samples
- Pharmaceuticals and Therapeutics
- Natural Products

Trace level quantitation of inorganic and organic mono- and polyatomic cations and anions

- Ca, Mg, K, Na
- Cl, F, NO<sub>2</sub>, NO<sub>3</sub>



iCAP RQ ICP-MS

## Analytical Method Development



Guided approach to solving your analytical problems. From instrument selection to sample preparation consultation to method development to data analysis, a PhD analytical environmental scientist will work with you on your materials science, environmental, or biological applications. Samples may either be submitted for analysis or analyzed by users following training. Please see the website for more details!

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