SIFT-MS: A COMPLETE AMBIENT AIR ANALYSIS SOLUTION

- Detect important environmental gases with a single instrument
- Very high selectivity through application of positive and negative reagent ions
- Analytical results in seconds
- Detection limits in the pptv range
- Easy to use
- Site deployable and remotely operable

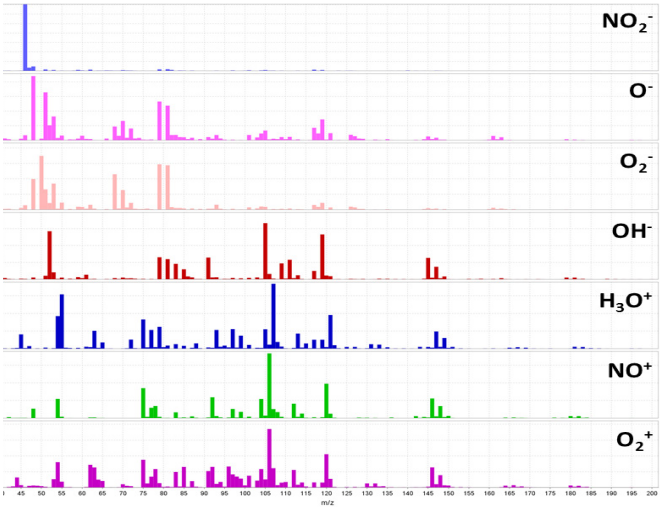
Comprehensive ambient air analysis usually requires multiple instruments for detecting various inorganic gases (such as greenhouse gases and ozone) and volatile organic compounds (VOCs). This means that monitoring sites are expensive to establish and maintain.

Syft Technologies' introduces a breakthrough in environmental gas analysis that enables Selected Ion Flow Tube Mass Spectrometry (SIFT-MS) to detect inorganic gases that were previously inaccessible to direct MS techniques. This provides an all-in-one solution for real-time air monitoring applications.

Traditionally SIFT-MS has used positive reagent ions (H_3O^+, NO^+, and O_2^+), which are more suitable for detecting VOCs than inorganic gases. Recent innovation has added four negatively charged reagent ions: O^-, O_2^-, OH^-, and NO_2^-. The additional ionization mechanisms provided by the new ions have further expanded the range of detectable compounds and significantly enhanced selectivity.

SIFT-MS now provides a complete solution for sensitive detection of:

- **Greenhouse gas analysis (carbon dioxide, nitrous oxide, water)**
- **Photochemical smog precursors (NO_x, ozone, PAN)**
- **Other inorganic pollutants (sulfur dioxide)**
- **General VOCs, including aldehydes.**



Multi-component gas mixture (subset of the US EPA TO-15 method) analyzed with seven reagent ions

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