

# Air and odour analysis



## Chemical and olfactory analysis of industrial air

Companies committed to sustainable development must take steps to measure odours, volatile organic compounds (VOCs), and greenhouse gases.

Today's urban sprawl, population concentration in cities, and regulatory requirements have created a need for specialized and customized environmental analyses.

To meet this need CRIQ environmental experts have developed chemical and sensory analytical measurements of industrial air and odours to:

- characterize gaseous effluents released by industrial, food processing, municipal, and agricultural sources;
- analyze and characterize ambient air and odours in industrial settings;
- measure fine emissions of VOCs in the medical and electronic industries; and
- identify solutions to odour-related problems.

# Air and odour analysis

## Chemical and olfactory analysis of industrial air



CRIQ, 2016/03/30 - © All rights reserved

### OUR EXPERTISE

- Chemical analysis of industrial air and odours
- Ambient air analysis using TO-15, TO-17, TO-11A (EPA), and other methods
- Chemical analysis of air emissions
- Analysis of outgassing from materials or liquids
- Sensory, physical, and chemical analysis of air
- Quantitative and qualitative odour analysis
- Olfactometric and odour nuisance index analysis
- Identification of solutions to olfactory problems in urban settings
- Development of analytical methods adapted to industrial environments
- Investigation of sources of contamination
- Verification of the efficacy of air and odour processing procedures
- Olfactory experts: “nose” trained in the analysis of environmental and industrial odours

### INFRASTRUCTURE

CRIQ boasts a laboratory and mobile unit, as well as numerous devices dedicated to the chemical analysis of air, VOCs, and odour that includes:

- instruments for sampling (bags, adsorption tubes, canisters, mechanical lungs, dynamic flow rooms) and measuring gases (H<sub>2</sub>S, mercury, ozone, combustion gas, etc.)
- GC/MS coupled to an olfactometric detection port, a cryogenic preconcentrator, and a thermal desorber
- suprathreshold olfactometer
- Micro GC-TCD, GC-FID, CEREX, GC/MS/MS HeadSpace, SPME
- chromatography using sulphur chemiluminescence and thermionic nitrogen detection
- PM10 and PM2.5 particulate analyzer

#### For information or advice on air and odour analysis:

**Marie-Josée Hardy**, Head, Industrial Eco-efficiency and the Environment  
333 Rue Franquet, Québec City, Québec  
G1P 4C7  
418-659-1550 / 800-667-2386, ext. 2603

**Guy Genest**, coordinator  
Business Development  
333 Rue Franquet, Québec City, Québec  
G1P 4C7  
418-659-1550 / 800-667-2386, ext. 2879