



HRMS Centre of Excellence

Brief introduction of the HRMS laboratory



RIGHT SOLUTIONS | RIGHT PARTNER

- Total capacity: 16 000 samples/year
- Establishment of the HRMS Lab: February, 2002
- Total Working Area: 525 m²
- Three separate laboratories for the sample preparation:
 - Enviro Prep Lab (soil, water, waste): 95 m²
 - Bio Prep Lab (food/feed/tissue): 100 m²
 - Emission/Air Prep Lab: 100 m²

- Two instrumental rooms with environmental control systems:
 - Constant temperature
 - Dust decrease
 - Reduce Floor vibrations
 - Minimize electric interferences
 - Power back-up system

GC-MS modern instrumentation



- 4 HRMS instruments
- Dual HRGC-HRMS

Finnigan MAT 95XP high resolution ($R > 10\,000$) with two gas chromatographs Agilent 6890N (HRGC) equipped with auto samplers CTC Total



- HRGC-HRMS

ThermoElectron DFS- GC Trace Ultra equipped with a TriPlus autosampler



- Two Dual HRGC-HRMS

Thermo Fisher Sci. high resolution ($R > 10\,000$) DFS with two GCs Trace Ultra equipped with a TriPlus autosampler

One of the key differences of ALS is staff experience and stability of the team

- Number of employees: 21 (8 University degree)
- Experienced key staff: 13–23 years in the field of POPs
- Participation to Certification of Candidate Reference Material (USA, Canada, Belgium, Czech Republic)
- Project experience on very contaminated sites, as well as monitoring of background levels (health monitoring)
- Crisis Resolution with involvement of food/feed producers
- Participation to main international conferences on POPs problematic
- Organization of local seminars on POPs problematic

ALS offers the most comprehensive range of services including:

- Dioxins (PCDD/F)
 - Enviro matrices – water, SPMD, soil, sediments, sludge, wastes, chemicals
 - Emission/Ambient air
 - Bio matrices–food, feed and human blood

Routine methodologies employed:

- Enviro and bio matrices – US EPA 1613, US EPA 8290
- Emission – US EPA 23, US EPA 23A, EN 1948
- Ambient air – US EPA TO-9A

ALS offers the most comprehensive range of services including:

- PCBs, especially co-planar PCBs (dioxin-like PCBs)
 - Enviro matrices – water, SPMD, soil, sediments, sludge, wastes, chemicals
 - Emission/Ambient air
 - Bio matrices–food, feed and human blood

Routine methodologies employed:

- Enviro and bio matrices – US EPA 1668
- Emission – JIS K 0311, EN 1948
- Ambient air – US EPA TO-9A/EN 1948

ALS offers the most comprehensive range of services including:

- Polyaromatic hydrocarbons (PAH)
 - Enviro matrices – water, SPMD, soil, sediments, sludge, wastes, chemicals
 - Emission/Ambient air
 - Bio matrices–food

Routine methodologies employed:

- All matrices– US EPA 429, resp. ISO 11338 and IP 346

ALS offers the most comprehensive range of services including:

- Polybrominated diphenyl ethers (PBDE)
 - Enviro matrices – water, SPMD, soil, sediments, sludge, wastes, chemicals,
 - Bio matrices–food, feed and human blood

Routine methodology employed:

- Enviro and bio matrices – US EPA 1614

Excellence in HRMS analyses



Right solutions....
...Right partner



ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES



ALS Europe
DIOXINS, DIOXIN-LIKE PCBs
technical publication

ALS Europe summarised its analytical skills and competencies in the field of POPs analysis in this technical publication.

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