

PLATINAAE, an analytical platform for your research in environmental chemistry

Pierre Masson, Antoine Richard, Christian Mougin

▶ To cite this version:

Pierre Masson, Antoine Richard, Christian Mougin. PLATINAAE, an analytical platform for your research in environmental chemistry. SETAC Europe 26th Annual Meeting, May 2016, Nantes, France. , 2016. hal-02800370

HAL Id: hal-02800370 https://hal.inrae.fr/hal-02800370

Submitted on 5 Jun 2020

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers. L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



PLATINAAE: AN ANALYTICAL PLATFORM FOR YOUR RESEARCH IN ENVIRONMENTAL CHEMISTRY

PIERRE MASSON¹, ANTOINE RICHARD², CHRISTIAN MOUGIN³

platinaae@arras.inra.fr



Ecotoxicological studies need high quality measurements of chemical contamination within the all the compartments of the environment. In consequence, analytical laboratories must produce traceable analytical data with high level of confidence, in numerous matrices.

PLATINAAE (PLAteforme d'Ingénierie en chimie Analytique pour l'Agriculture et l'Environnement) is the central platform for analytical chemistry of INRA (French National Institute for Agricultural Research) mainly dedicated to plant and soils analysis. This platform is supported by two laboratories located at Arras (LAS) and Bordeaux (USRAVE). Both are equipped with high-performance instrumentation and are accredited according to the standard ISO 17025.

PROCESS

PLANTS/SOILS

DRYING OF SAMPLES
GRINDING/SIEVING
HOMOGENEISATION
SAMPLING
EXTRACTION/DIGESTION
INSTRUMENTAL DETERMINATION

- Inorganic analysis
- Organic analysis
- Pedo-agronomic analysis

QUALITY CONTROL CALCULATION

RESULTS











EXPERTISE

ADVICE FOR SAMPLING

SAMPLE PREPARATION

AVOIDING CONTAMINATIONS

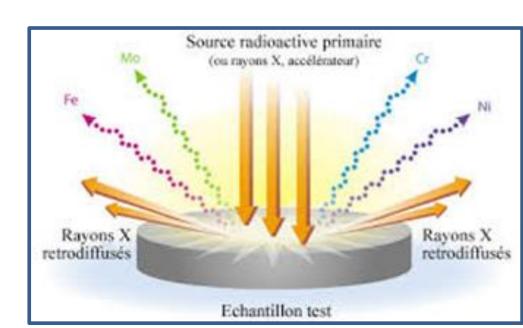
ROUTINE ANALYSIS

QUALITY MANAGEMENT

- > LIMS
- Quality control
- Method validation
- Uncertainty evaluation
- Metrology

INNOVATION and R & D

- Gas chromatography
- Liquid chromatography
- Mass spectrometry (HRMS, MSMS...)
- > ICP-OES
- > ICP-MS
- > X-ray fluorescence
- Very small samples
- Ultra-traces
- Emerging contaminants
- Chimiometry





PLATINAAE works essentially as a partner in research programs. The main themes investigated are environmental contamination, biogeochemical cycle of elements in various ecosystems (crops, lands, forests...), food chain or plant physiology. In theses scopes, PLATINAAE participates then to numerous programs for environmental observations and experimentations, such as the ICOS Ecosystem project, the European program Biosoil, The RMQS network, the BRAMM network, or the RENECOFOR program (monitoring of French forests).





² INRA LAS, 273 Route de Cambrai, 62000 Arras, France

³ INRA ECOSYS, Route de Saint-Cyr, 78026 Versailles Cedex, France Website USRAVE: http://www6.bordeaux-aquitaine.inra.fr/usrave_eng/Website LAS: http://www6.npc.inra.fr/las