

GAU-Radioanalytical Laboratories (GAU)

An introduction

GAU-Radioanalytical Laboratories (GAU) is a long-established and experienced commercial group providing radioanalytical services, consultancy and research support for government, industrial and academic sectors.

Capability

Our expertise in radiometric analysis, radioanalytical project management, R&D and training is widely recognised. Our capability is underpinned by highly skilled staff, state-of-the-art facilities, and high impact research covering the nuclear, chemical and geochemical sectors. Radioanalytical services include alpha and gamma spectrometry, liquid scintillation analysis, ^3H , ^{14}C , ^{36}Cl and ^{129}I extraction, and mass spectrometry all of which are available to in-house researchers and external clients.

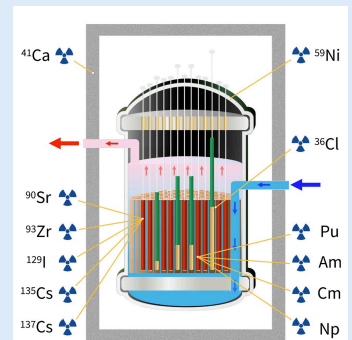
Our Services

- Complex sample preparation and digestion techniques
- Gamma ray spectrometry of diverse matrices (HPGe and LEGe)
- Alpha spectrometry (Ra, Po, Th, U, Pu, Am, Cm)

- Low background liquid scintillation counting (^3H , ^{14}C , ^{35}S , ^{36}Cl , ^{41}Ca , ^{45}Ca , ^{55}Fe , ^{63}Ni , ^{99}Tc , ^{129}I , ^{147}Pm , ^{151}Sm , ^{228}Ac , ^{241}Pu)
- Volatile radionuclide extraction from any material (Pyrolyser)
- Mass spectrometry (ICP-QQQ)
- Gas flow proportional counting (gross alpha/beta)
- Radiometric dating of sediments (^{137}Cs and ^{210}Pb)

Research

Our research predominantly originates from commercial activities and partnerships with our clients in the nuclear decommissioning, environmental/workplace monitoring, and nuclear safeguarding sectors. GAU's focus research areas include: waste characterisation & analytical techniques, remediation technologies, nuclear forensics, and environmental studies.



Typical radionuclides measured originating from a nuclear reactor

Sectors/Industries we work with:

- National/international universities and labs
- Nuclear decommissioning
- Environmental monitoring
- Government
- Defence
- Aviation
- Pharmaceuticals
- Petroleum and minerals extraction
- Civil engineering/ground remediation
- Geoenvironmental monitoring

A selection of our alpha, beta and gamma spectrometers



For more information

GAU Main Office
Email: gau@noc.soton.ac.uk



GAU is a UKAS accredited laboratory (BS EN ISO/IEC 17025)