



INVITATION  
for a  
VERA - SEMINAR  
with

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**Iodine determination in environmental  
samples on a MILEA-type AMS system**

Iodine analysis is a valuable tool in the study of environmental contamination and its movement across ecosystems. The study of  $^{129}\text{I}$  and its isotopic ratio ( $^{129}\text{I}/^{127}\text{I}$ ) facilitates the identification of the sources and distribution of iodine in environmental samples, including sediments, soils, water, and others. Iodine's volatility and complex chemical behavior necessitate meticulous sample collection and preparation for accurate measurement.

In this study, a leaching method employing tetramethylammonium hydroxide was optimized for the extraction of iodine from solid matrices. This was followed by liquid-liquid extraction, which was also applied to liquid samples. Accelerator mass spectrometry (AMS) with a MILEA (Multi-Isotope Low-Energy AMS) type system was utilized to assess the concentrations of  $^{129}\text{I}$ .

The research encompassed a diverse array of environmental samples, including marine specimens from Denmark, Greenland, and the Faroe Islands, as well as freshwater samples from Danish rivers and the Czech Republic. The utilization of iodine as a tracer facilitates the comprehension of contamination patterns and assists in the identification of potential sources within both marine and terrestrial environments.

Thursday, 13.11.2025, 16:30 o'clock

**1090 Wien, Währinger Str. 17, "Kavalierstrakt",  
1. Stock, Victor-Franz-Hess Hörsaal**