



INVITATION

for a

VERA – SEMINAR

with

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and
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**Expanding the elemental and isotopic toolbox in
support of the Sustainable Development Goals**

In 2015, the United Nations General Assembly defined 17 Sustainable Development Goals (SDGs)* which are intended to be achieved by 2030. In the present talk, an overview of the potential of modern elemental and isotopic analysis based on Multi Collector Inductively Coupled Plasma Mass Spectrometry (MC-ICP-MS) and Inductively Coupled Plasma Collision Reaction Cell Mass Spectrometry (ICP-CRC-MS) for investigations in Environmental Science, Geoscience, Life science, and Materials Science will be given. Selected SDGs (2, 3, 6, 7, 9, 11, 12, 13, 14, 15, 17) will be considered, as there are many ways chemists are working to support global sustainable development.

Recent instrumental developments in ICP-MS will be discussed for elemental as well as isotopic analysis, especially emphasizing collision and reaction cell technology. Selected projects dedicated to the EU Green Deal and Zero-Waste initiatives will be presented with a focus on inorganic pollutants and substances, such as technology-critical elements.

The use of natural variations of isotopic composition (*e.g.* of Sr, Ca, Ni, Fe, Pb) as proxies to study natural and technological processes as well as the application of enriched stable isotope tracers (*e.g.* Sr, Pb, Mg, Ni) will be discussed.

*) https://en.wikipedia.org/wiki/Sustainable_Development_Goals

Thursday, 12. January 2023, 16:30 o'clock

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

R. Golser

K. Hain

W. Kutschera