

I N V I T A T I O N

to a

ERASMUS+ Lecture

by

PD Dr. E. Strub

University of Cologne

**Technetium – Physics and Chemistry of an
Artificial Element**

The existence of an element below manganese (eka-manganese) was proposed as early as 1869 by Mendeleev. It was finally discovered and named as *technetium*, 78 years after Mendeleev's proposal. Since then, nearly another 78 years have passed, and today, the short-lived isomer ^{99m}Tc with a half-life of 6 hours is the most applied radioisotope in medicine with roughly 25 million applications per year.

On the other hand, due to the fact that technetium is a radioelement, much less is known on technetium compared to most other chemical elements and there are still remarkable knowledge gaps with respect to its fundamental chemical behaviour.

This lecture provides a broad insight into the physics and chemistry of the artificial element, its history, as well as occurrences and analytics and its role in radiopharmacy, in geochemistry, the nuclear fuel cycle, and in the environment.

24.02.-26.02.2025, 10 am – 12 pm

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