



EINLADUNG

zum

VERA - SEMINAR

von

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Environmental radioactivity after the Fukushima nuclear accident

In the course of the Fukushima nuclear accident large amounts of artificial radionuclides were released into the environment, which caused significant contamination locally and much concern globally. Radioactivity from iodine (primarily I-131) and cesium (Cs-134 and 137) was released in a total amount of roughly 1×10^{18} Bq (decays per second).

At the Atominstitut foodstuff samples, provided from three Japanese citizens, were analyzed with respect to their potential for causing radiological harm. Foodstuffs were also found to be easily accessible and proper environmental samples to reflect the contamination levels in the respective Japanese prefectures. With a data set of almost 500 samples, we could determine the radiocesium ratios (Cs-134/Cs-137) with focus on local differences. Approximately one week after the accident, first traces of radionuclides were detected over Europe. At the Atominstitut air and rain samples were investigated. These data contributed to a large European study on the distribution of Fukushima-related radioactivity over Europe.

Bioaccumulation of radioiodine in the thyroid gland may cause high organ doses and is regarded as the greatest threat after reactor accidents. We could show that this highly efficient process may be used for monitoring purposes as well: animal thyroids may act as highly sensitive biomonitors of radioiodine.

Donnerstag, 19. April 2012, 16:30 Uhr

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