

Uranium/Plutonium Analysis for Nuclear Safeguards and Forensics

The analysis of uranium and plutonium in nuclear safeguards and forensics requires techniques suitable for a broad mass and concentration range of more than ten orders of magnitude: Methods with highest accuracies are needed for concentrated samples from nuclear fuel processing of some 100 g/L. The search for undeclared nuclear activities, on the other hand, requires sensitive techniques with low limits of detection. The analytical needs in nuclear forensics are between the two extremes, depending on the type of sample. The seminar will present detection techniques for plutonium and other related actinide elements which cover this range of applications.