

Detection of heavy metals in Metal Recycling via Neutron activation

Center for Computational Engineering Science
RWTH Aachen University

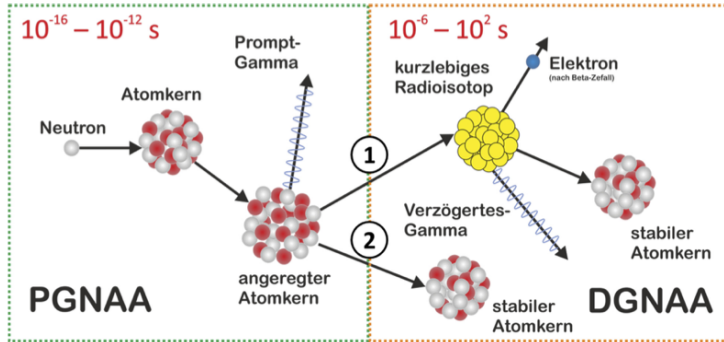
Aachen, 24. August 2021



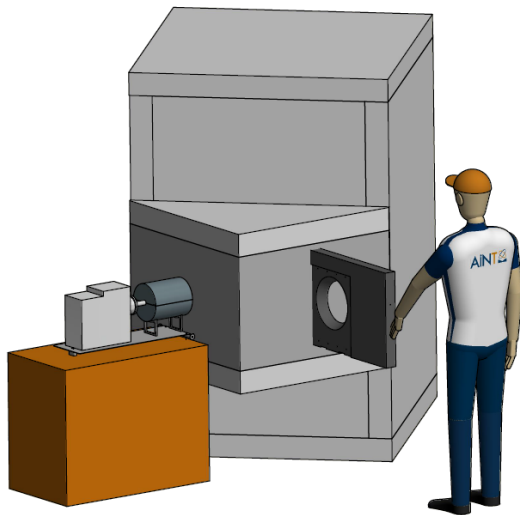


- AiNT is an Spin-off of the RWTH formed by Engineers, Mathematicians, Physicists and Software Developers
- Offers seminars and workshops in nuclear physics
- Development of new measurements systems and software using nuclear techniques for the industry
- The problem you are about to study is about a real system that was build in 2017

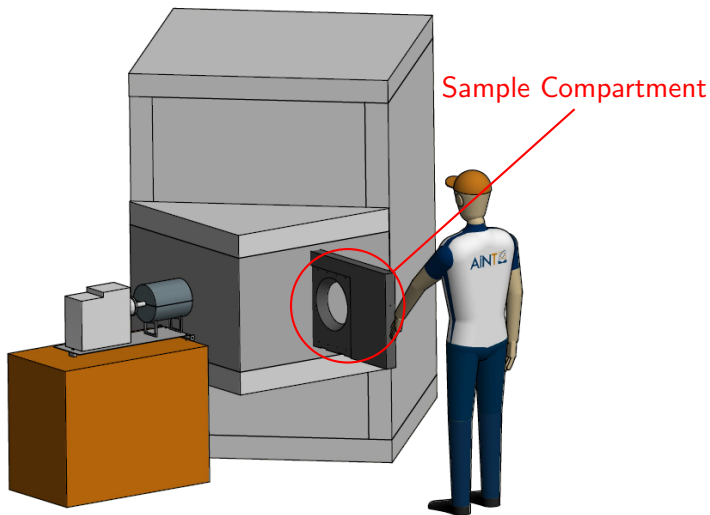
Phenomenology



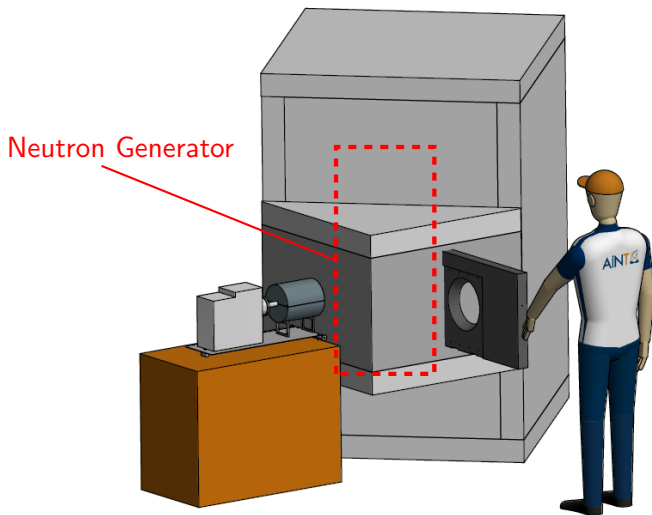
ZEBRA Device



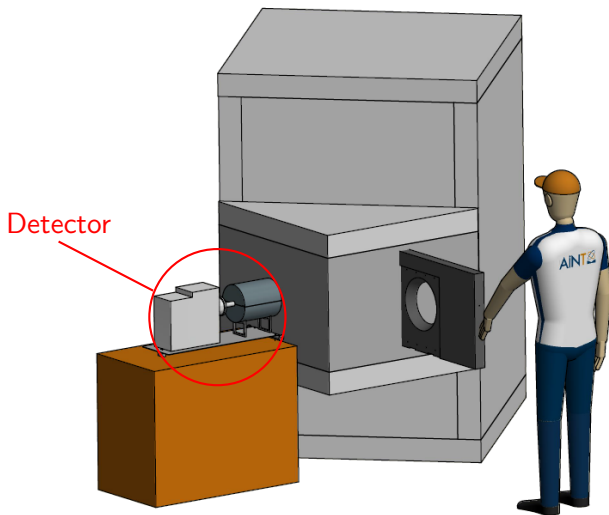
ZEBRA Device



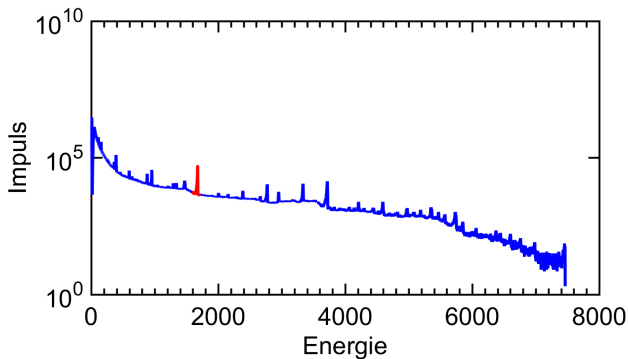
ZEBRA Device

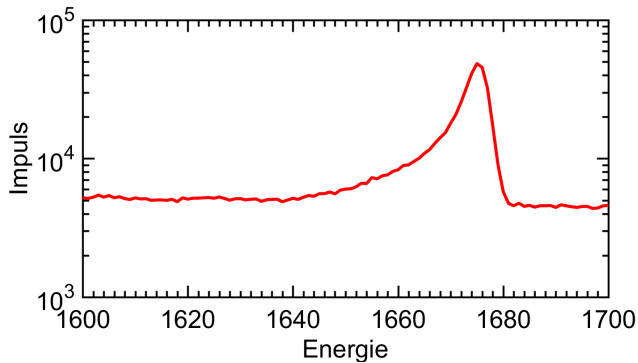


ZEBRA Device



Measured Spectrum





Your Problem

- How can two gamma spectra be compared?
- How can the differences between the spectra be recognized and described?
- What is a measure of the agreement between two spectra?
- Can spectra be divided into groups? How do you create such a grouping, and how does the assignment take place?