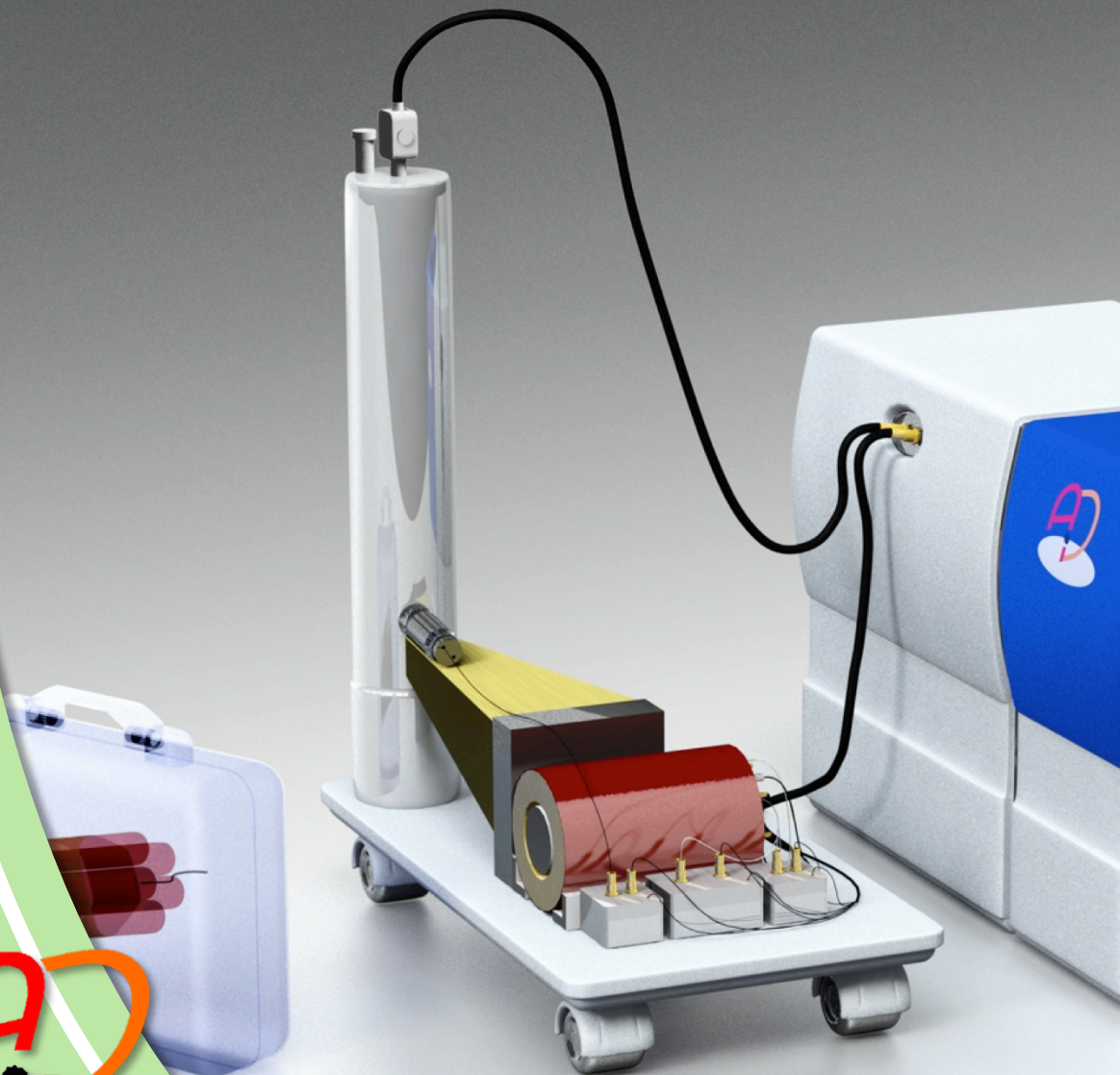
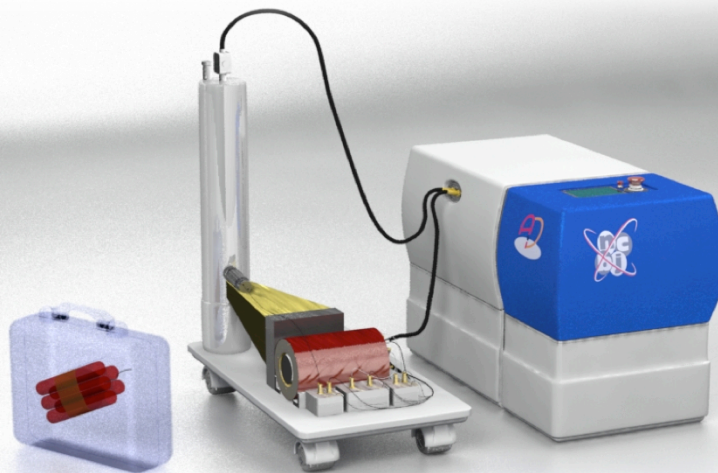




SWAN

Hazardous Materials Detection System





Description of the device

Hazardous Materials Detection System is the mobile device designed for detecting explosives and/or toxic materials concealed in monitored containers by means of neutron activation analysis. In a matter of minutes the device is capable of distinguishing toxic or explosive material from the one that is neutral and harmless. The device offers a noninvasive method for qualitative and quantitative isotopic analysis.



Principle of operation

- sample activation with continuous flux of 14-MeV neutrons
- observation of the distinctive neutron induced gamma-emission from the activated sample
- real time data analysis
- isotopes identification, materials recognition and threat classification

Features

- mobility
- real time analysis
- simplified and intuitive user interface
- dedicated software and electronics

Michał Gierlik, PhD
Head of
Electronics and Detection Systems Division
michal.gierlik@ncbj.gov.pl
phone: + 48 22 71 80 603

Jacek Rzakiewicz, PhD
Leader of
AiD project
jacek.rzakiewicz@ncbj.gov.pl
phone: + 48 22 71 80 465



National Centre for Nuclear Research
ul. Andrzeja Sołtana 7
PL-05-400 Otwock-Świerk, Poland



AiD project
<http://www.ncbj.gov.pl/aid>
aid@ncbj.gov.pl
phone +48 22 71 80 465

SWAN has been developed within the project "Development of dedicated systems based on accelerators and detectors of ionizing radiation for medical therapy and in detection of hazardous materials and toxic wastes" supported by EU Structural Funds Project no POIG. 01.01.02-14-012/08-00