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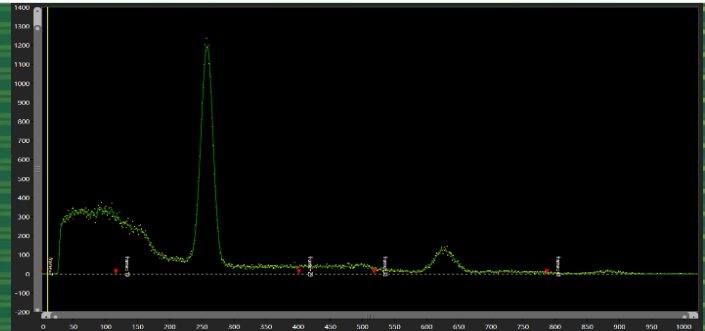


INDUSTRY  
& MANUFACTURING



NUCLEAR  
MEDICINE

# RADSPEC SPECTROSCOPY SOFTWARE



## MAIN ADVANTAGES

- Peak and statistical analysis of measured spectra
- Identification of gamma peaks
- Identification of radionuclides

## PURPOSE

The RadSpec program is intended for the measurement and spectral analysis of data from detectors equipped with a multi-channel analyzer (MCA). It finds peaks in the measured spectrum and assigns them the corresponding radionuclide from the radionuclide library. Energy, FWHM and efficiency calibrations are used for the evaluation.

The program has the following basic functions:

- MCA settings, measurements and saving of measured spectra to files,
- energy calibration, which assigns radiation energy in keV to each channel in the MCA,
- FWHM calibration, which defines the dependence of the peak half-width on the peak channel in the spectrum,
- efficiency calibration, which assigns the given radiation energy to the efficiency of capture in the detector with regard to yield,
- creation and editing of radionuclide libraries,
- creation and editing of files with parameters for spectral analysis,
- spectra evaluation.

The program contains a radionuclide library with a list of expected radionuclides in the spectrum. The radionuclide library contains 2 types of lists:

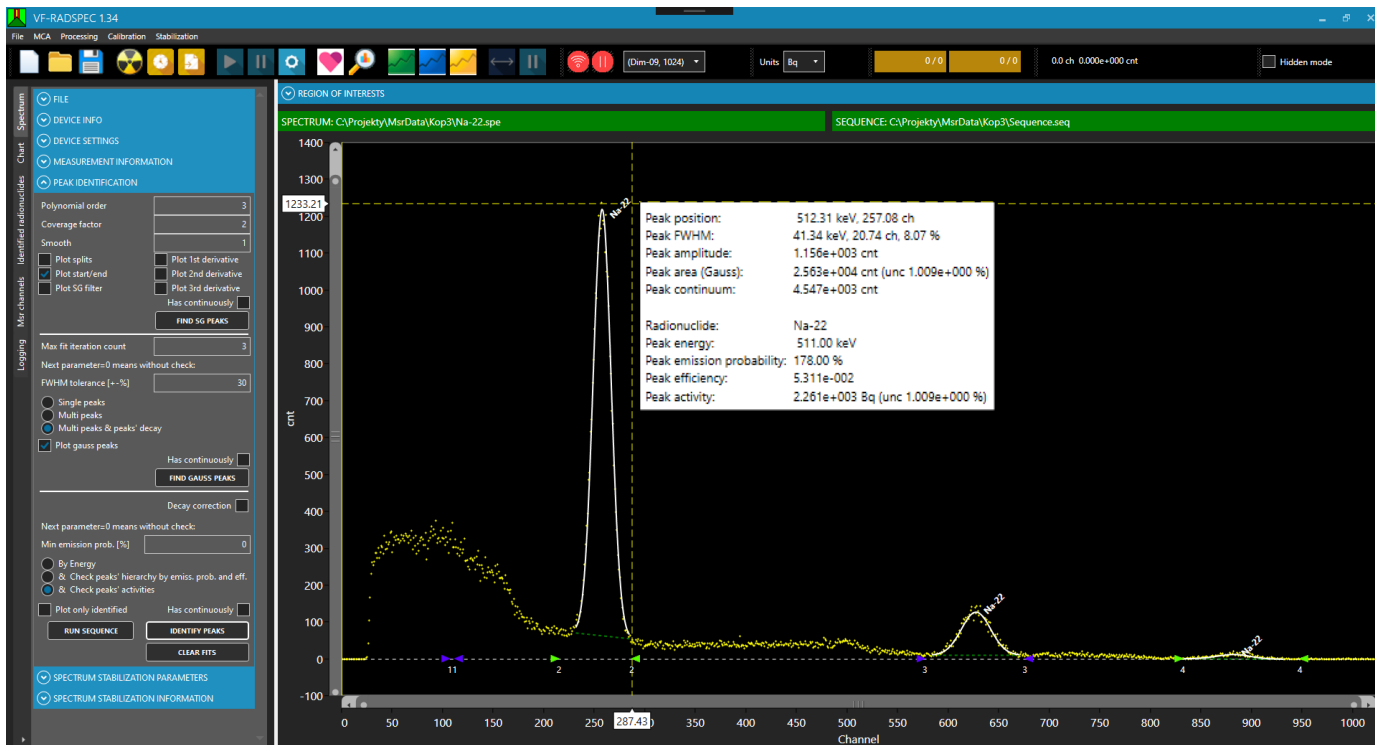
- a list of radionuclides with their properties (half-life, energy, yield, ...), used to identify peaks in the spectrum,
- a list of certified reference materials (CRM) with their properties (half-life, reference activity, reference date, ...), used for performing calibrations.

SW RadSpec communicates with these selected MCAs: MCA 1000, DIM-09, DIM-15.

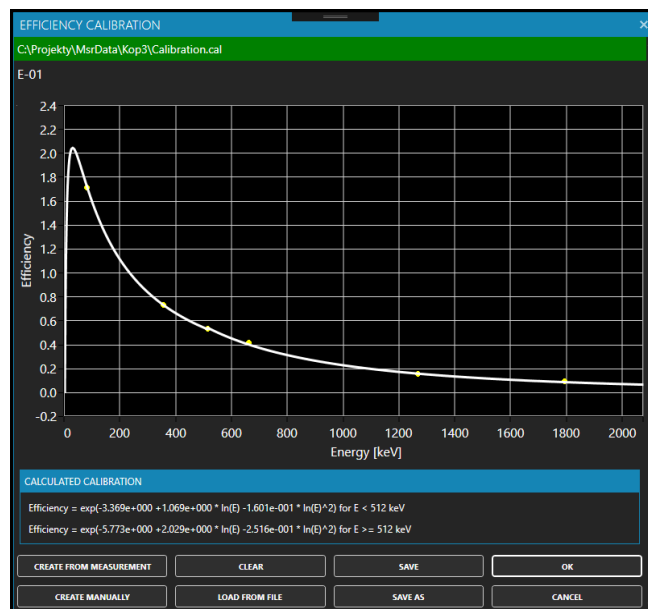
## HARDWARE REQUIREMENTS

Processor	Intel i3
Operation memory	RAM 8 GB
Hard drive	128 GB HDD
Operating system	Microsoft Windows 10 or higher

# RADSPEC SPECTROSCOPY SOFTWARE



Spectrum for the identification of radionuclides - "Gamma" peaks



"Energy Calibration" and "Efficiency Calibration" dialog boxes

