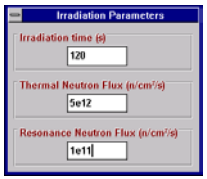
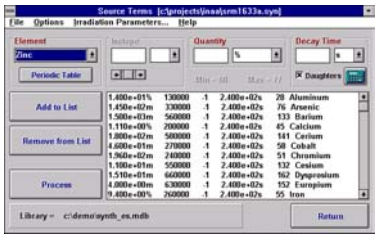
Applications of *SYNTH*

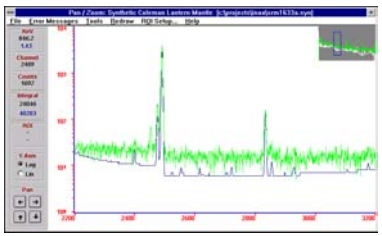
Activation Analysis



NAA Irradiation Parameters.
Irradiation time, thermal, and epithermal neutron fluxes are entered on this form.

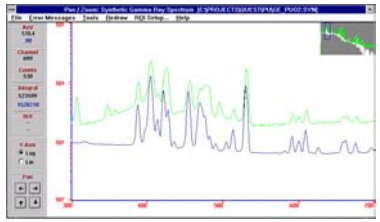


NAA component Specification.
The concentrations of major, and trace elements may be entered on this form.

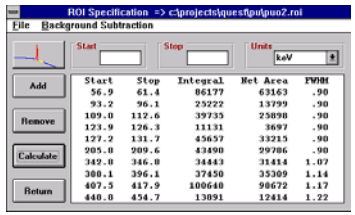


SRM 1633A
The 850-keV region of a measured, and synthetic NAA spectrum of SRM 1633A. The peaks from ^{152m}Eu and ^{56}Mn are dominant in this region.

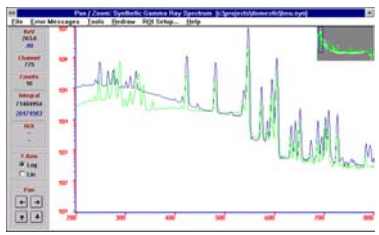
Safeguards



PuO_2 Measurement.
The 100-keV region of a synthetically generated PuO_2 spectrum, along with the reference (experimentally acquired) spectrum.

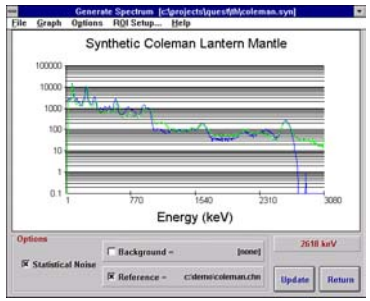


ROI Specification.
Regions of Interest may be specified for rapid determination of peak areas. Background subtraction may be performed to yield net as well as gross peak areas.

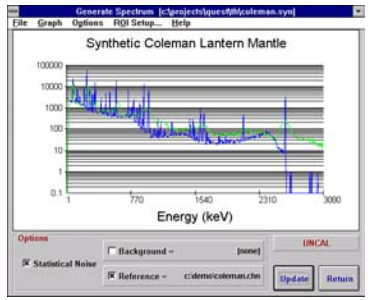


HEU Measurement.
The 185-keV region of a synthetically generated HEU spectrum, along with the reference (experimentally acquired) spectrum.

Laboratory Experiments



Coleman Lantern Mantle.
Spectrum of a Coleman lantern mantle as measured, and modeled with a **NaI** (Tl) detector.



Coleman Lantern Mantle.
Spectrum of a Coleman lantern mantle as measured with **NaI** (Tl), and modeled with a **Ge** detector.

Contact Information

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