Extended source efficiency correction and optimization of the sample position to measure the concentrations of NORM using a HPGe detector

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Methodology



Spatial variations in the measurement efficiency are used to calculate the concentration of radioactive material in extensive sources.

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Methodology



Spatial variations in the measurement efficiency are used to calculate the concentration of radioactive material in extensive sources.

The HPGe coaxial detector used has a relative efficiency $40\,\%$ compared with a standard NaI of $3''\times3''$ detector.



Figure 1: Scheme of the experimental set-up.

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Results

Results





Figure 2: Solid angle values for positions studied in this work.

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Methodology

Results

Results







Figure 2: Solid angle values for positions studied in this work.

Figure 3: Comparison de intrinsic efficiency for different heights.

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Thank you !!!

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