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Applicability of ANGLE Software for Quantitative Gamma-Spectrometry in CTBTO Radionuclide Stations

ANGLE software for semiconductor detector efficiency calculations (angle.dlabac.com) has been in use for 19 years now in numerous gamma spectrometry analytical laboratories all around the world. It allows for the accurate determination of the activities of gamma spectroscopic samples for which no “replicate” standard exists, in terms of geometry and matrix.

ANGLE is characterized by (1) wide range of applicability, (2) high accuracy, (3) ease of use, (4) short computation times, (5) flexibility in respect with input parameters and output data, including easy communication with another software and (6) suitability for teaching/training purposes. (7) It can readily be extended to users’ needs and/or fields of interest (”open ended” computer code). A key aspect and difference from other approaches, greatly enhancing practicality is that (8) no “factory characterization” of the detector response is required, i.e. (9) practically any detector may be used if some basic knowledge concerning its construction is available.

The above makes ANGLE perfectly suitable for gamma-spectromerical analyses at CTBTO Radionuclide Stations, both in automatic and man-assisted systems.

While developed at the University of Montenegro, ANGLE is commercially distributed by AMETEK/ORTEC, U.S.A. (ortec-online.com).

Primary author: JOVANOVIC, Slobodan (Univertsity of Montenegro, Centre for Nuclear Competence and Knowledge Managemenet (UCNC))

Presenter: JOVANOVIC, Slobodan (Univertsity of Montenegro, Centre for Nuclear Competence and Knowledge Managemenet (UCNC))

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