TEMPORAL δ compton γ-ray camera

The best image you can get above 511 KeV!

DAMAVAN IMAGING

Temporal Monocular camera upgrades 2024

Imaging from 300 kEv comparing to 400 kEv with previous version of the Temporal Monocular camera glad to energy calibration change. Allows:

- Larger library of isotopes;

Upgraded **new Atlas software version** to manipulate easier and get more inforamtion from the camera. Allows:

- An automatic isotope identification on the spectrum and gamma images per isotope and selected peaks;
- Download of measurement report that contains gamma & optical images and estimated activity & dosimetry data at the reconstruction distance and at the camera level and per isotope;
- Export of energy spectrum data in csv format

Addaded **images normalisation.** Allows:

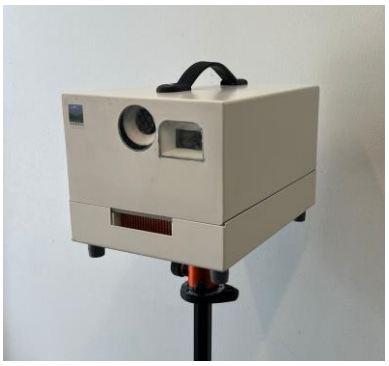
- Compare the number of counts before and after contamination cleaning;
- Detect the change in color codes glad to isolines per isotope;
- Make quantification per isotope.

Hardware upgrades:

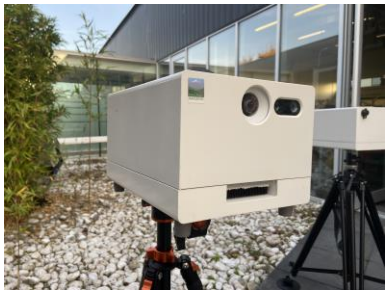
- Internal battery to run measurements without power supply up to 2 hours
- Aluminium housing with decontaminable upper half (fan replacement is included in the maintenance contract)

4π source detection. Allows:

- Identifying the direction of the source in a livemode



2024



2023

Specifications

Field of view	90 x 90 flat field	Timing Resolution	300 ps @ 511 KeV	Operating Temperature	-20°C to 45°C	Spectral resolution	<1.5% @ 662KeV
Sensitivity high flux	3mR/h < 1 mm	Angular resolution	< 10 degrees (full spectrum) < 8 degrees (energy gated)	Energy range	50 keV–3MeV (spectroscopy) 500 keV– 3MeV (imagery)	Camera Weight	4,5 kg
						Count rate limit	>1 mSv/h 6-10 mSv/h with special set-up
Sensitivity low flux	900 Bq Co^{60} on 1m² @ 1m in 1,5h	Sensors	CeBr3 + CZT	Communication	Ethernet to laptop/Wi-Fi	Power Source	110 – 220V (mains) + battery

Miscellaneous characteristics:

- Dimensions 230 x 290 x 160 mm
- Interface through laptop (supplied)
- Automatic isotope identification
- 4π source detection
- Aluminium Housing
- Dose estimation / Activity estimation (γ lines)
- Telemeter distance ranging with laser pointer
- Watertight (IP65) decontaminable upper half
- Battery Life > 2 hours with internal battery
- Energy resolved photon counting

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