162 Uptake-Counter

The Uptake Counter ISOMED 162 is a universal in-vitro measurement system designed for applications in nuclear medicine.
The counter consists of a powerful PC system with integrated multichannel analyzer and a tripod system accommodating the scintillation detector with shielding.
The uptake measurement system can be employed either for measurements with I-131, I-125 or Tc-99m, with automatic half-life correction.
The user program UPTAKE1, which is part of the measurement system, supports measurement and documentation of uptakes in diagnostics and therapy, including calculation of the activity and the focal dose during evaluation.

Use and Function

Uptake measurement in diagnostics and therapy.
Therapy planning with calculation of the therapy dose.
Calculation of the release date.
Kinetic function analyses.
Leakage control in isolated extremity perfusion (ILP).
Measurement program for incorporation monitoring of the personnel working in the therapy field.

Performance Features

Hardware

Powerful PC system with integrated multi-channel analyzer

Various tripod systems:
- mobile, motor-driven height-adjustable tripod
- stationary, motor-driven height-adjustable tripod with rotary head system
- table tripod
- customer-specific solutions

Option: system components on tripod

Probe shielding, 30 mm lead

Adapted collimators and absorbers

Thyroid phantom and test source for calibration and quality assurance

Independent uptake measurement by the patient possible using transponder and program routine

Uptake counter can be set up as combined counter, e.g. with dose calibrator, use of one PC system

On-line measurement data transfer

Software:

User-friendly software.
Clearly-structured display of results and parameters, on-line presentation of the spectrum with marked nuclide windows, simultaneous measurement possible in two nuclide windows.
Determination, presentation and documentation of uptakes in diagnostics and therapy, with calculation of the effective half-life period and the max. uptake. De-tails see software description Integrated patient file

(max. 1500 patients), input/transfer of patient file also possible via network.

The thyroid mass can be taken into account through manual input or through calculation methods based on scintigraphy and/or sonography data.

Up to 4 post-applications can be taken into account.

Automatic half-life correction.

3 calibrations each for Tc-99m, I-123, I-131 e.g. for various distances, filter...

Calculation of the probable period as an in-patient in therapy, either based on activity or dose.

Integrated quality control in accordance with DIN6855 and the Directive Radiation Protection in Medicine, with protocol printout and date monitoring.

Measurement series as a function of time, adjustable measurement time/distance, with data storage and graphical presentation of measurement curve, e.g. for leakage control in ILP.

Ratemeter function e.g. for localization of the max. count rate Common software interface in combined counters.
160/1 with on-line transfer of measured data.

Integration in network possible.

The Uptake Counter ISOMED 162 fulfils the requirements of the Medical Product Law. It has been certified by the TÜV Produkt Service GmbH in accordance with the Directive of the Council, No. 93/42/EWG. EC certificate no. G1 980833179001, CE 0123

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