NUVIATECH HEALTHCARE

SPECIFICATION SHEET

ISOMED 2162

THYROID UPTAKE SYSTEM

The thyroid uptake system is a measuring system designed specifically for the diagnosis and therapy of the thyroid gland. It provides support in therapy planning of nuclear medicine treatment, especially in radioiodine therapy. The thyroid uptake system is used for the quantitative determination of the percentage of radioiodine uptake in the thyroid gland or in tissue derived from the thyroid gland. A wide range of accessories is available for the thyroid uptake system.

Advantages

- Calibration for I-123, I-131 and Tc 99m with a maximum of 9 different calibration conditions (distance, absorber, ...)
- Manual entry of the thyroid mass or calculation based on scintigraphy or sonography data
- Wide range of accessories such as collimators, absorbers, thyroid phantom and test sources
- Integrated quality controls according to DIN 6855-1 (IEC 61948-1)
- Graphical representation of energy spectrum and uptake curve

Key figures

ø2″ x 2″
➥ *NaI(Tl) scintillation probe*

3 nuclides
➥ *Can be calibrated*

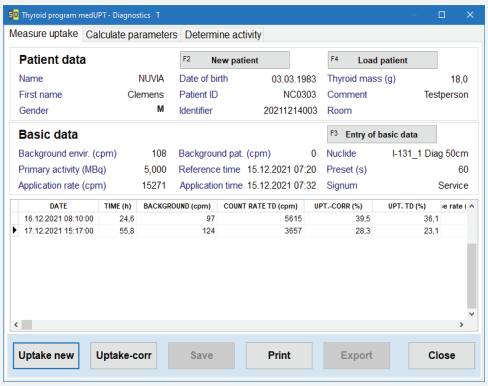
9 different
➥ *Calibration conditions possible for each nuclide*

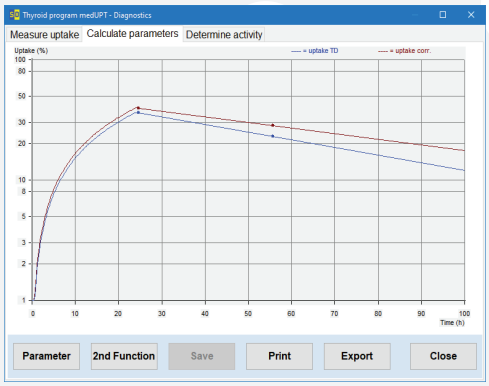
Product Description

The thyroid uptake system ISOMED 2162 is a measuring system for determining and calculating the thyroid uptake. The programme determines the effective half-life and the maximum uptake from the patients' uptakes. These parameters are used to calculate the activity to be applied for dose planning of radioiodine therapy or to calculate the effective focal dose during therapy. Up to the uptake maximum (initial distribution phase), the dose is determined through numerical integration, after the uptake maximum through analytical integration. The extensive range of accessories allows precise individual measurements.

Functionalities

- Calculation of the uptake and the required activity for the required dose of radioiodine therapy
- Calculation of the patient's required length of stay and earliest possible discharge date
- Determination of the length of stay via the applied activity or an external dose rate measurement
- 3 different measurement methods for uptake determination based either on thyroid activity and background or on whole-body activity in combination with thyroid measurements
- Patient identification by means of a transponder
- Connection to a RIS via an HL7 module possible
- Option to extend the dose rate measurement system for measuring the whole-body dose rate
- Several password-protected operating levels help to prevent manipulation and operating errors





The ISOMED 2162 Thyroid Uptake System is a certified Medical Device in the EU.

NUVIA Instruments GmbH
Standort / Site: Dresden
Dornblüthstraße 14A
01277 Dresden
Germany

Options

Possibility of connecting a device for measuring the dose rate (ALMO-1 or Graetz X5plus)

Technical Data

Scintillation probe	NaI(Tl) scintillator ø 2" x 2"
Energy range of the scintillator	10 keV to 2,000 keV
Test source for quality checks	Cs-137
Multichannel analyser	Number of channels: 2048
Measuring time	60 s (adjustable from 1 s to 99999 s / 10 counts to 999999 counts)
Unit of measurement	cps, cpm or counts
Communication	via USB
Dimensions	PC: 420 mm x 360 mm x 83 mm Scintillation probe: ø 65 mm x 340 mm Radiation detector: 51 mm ø x 51 mm
Weight	PC: 7.0 kg Scintillation probe: approx. 1.5 kg
Scope of delivery	All-in-One PC (operating system: Windows 10) Software Probe Counter ISOMED 2101 Software Thyroid program medUPT 2" x 2" NaI(Tl) scintillation probe MCA USB Box
Accessories (optional)	Cs-137 test source: 9.5 kBq, for device calibration Printers Probe shieldings Table tripod Thyroid collimators Absorber Thyroid phantom

NUVIATECH HEALTHCARE

NUVIATech Healthcare is a brand for highly reliable nuclear measurement instruments and innovative solutions dedicated to the medical industry.

NUVIATech Healthcare solutions include

- Automation for radiopharmacy and radiochemistry
- Laboratory equipment
- Nuclear medicine instrumentation
- Radiation monitoring systems
- Radiation protection instruments and shielding
- Solutions for radioactive waste handling and management
- Radiopharmaceutical turnkey projects

NUVIA always strives to exceed customers' expectations through a vertical integration of expertise, encompassing the design, manufacturing, qualification and on-site implementation of instruments or turnkey solutions.

The Smart Choice in Nuclear Measurement