SCREENER AUTOMATED SPECTROMETRY COMPLEX FOR HUMAN BODY INTERNAL RADIATION MEASUREMENT



Specification

Registered radionuclides: K-40, Cs-137, Cs-134, Ru-106, Ra-226, Th-232, and others.

Dimensions of NaI (Tl)	
scintillation detector, mm	$\varnothing 120 \times 80$
Range of registered energies,	
MeV	0.05-3.0
Cs-137 MPA in human body, Bc	<u>I</u> ≤200
Range of measured radionuclide	e
activity, kBq	0.20 - 555
Energy band enhancement	
for Cs-137, %	7.5
Time to the operating mode, mi	n 10
Rapid monitoring rate, people/	h 15
Continuous operation time, h	24
Operating temperature, °C	10-35
Permissible humidity, %	≤75
Power	220 V,
	$50 \pm 2 \text{ Hz}$
Dimensions, mm	$1400\times800\times1100$
Weight, kg	100

Areas of Application

The device is designed to measure the content of radionuclides accumulated in the human body as a result of consumption of contaminated food or inhalation of contaminated air

Advantages

Rapid operation, enables keeping databases

Stage of Development. Suggestion for Commercialization

IRL8, TRL9

Production sample. Sale of device. Manufacture, commissioning, supply, staff training, and warranty service. Creation of a technological framework for manufacturing generic model. Finalization of sample and serial production model. Further upgrade of production, optimization solutions for adjustment to the main markets

IPR Protection

IPR1, IPR3

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