

Hellenic Accreditation System



Annex F2/18 to the Certificate No. **116-6**

SCOPE of ACCREDITATION

of the

Calibration Laboratory

of the

GREEK ATOMIC ENERGY COMMISSION (EEAE)

Measurand / Calibration item	Range of measurement	Calibration & Measurement Capability (k=2)*	Remarks
Radiation measurements			
Ionization chambers and electrometers used in Radiotherapy in terms of N_k and $N_{D,w}$	Energy: Co60 K_{air} rate : 400 mGy/min (Apr. 2012) Dose rate in water: 400 mGy/min (Apr. 2012)	N_k : 0,8 % $N_{D,w}$: 0,9 %	IEC 60731:2011 IAEA TRS 469: 2009 IAEA TRS 277: 1987 IAEA TRS 381:1997 IAEA TRS 398:2000
Instruments used in Radiation Protection for the detection and measurement of gamma and X radiation: - Survey meters - Geiger - Scintillation detectors - Analog detectors - Ionization chambers	Energies : Cs137, x-ray (N40-N200) & Co60 Air kerma rate, K: 0,001 – 10 mGy/h (Cs137) 0,1 – 15 mGy/h (x-ray) 0,001 – 45000 mGy/h (Co60) $H^*(10)$ rate: 0,001 – 10 mSv/h (Cs137) 0,1 – 15 mSv/h (x-ray) 0,001 – 45000 mSv/h (Co60)	N_k : 2,4 % $N_{H^*(10)}$: 4,6 %	ISO 4037-1:2019 ISO 4037-2:2019 ISO 4037-3:2019 ISO 4037-4:2019 EAOT EN 61526:2013 EN 60846.01:2014 IEC 60824-2:2015 IAEA TRS 16:2000 ICRU 39:1985 ICRU 43:1988 ICRU 47:1992 ICRU 51:1993

Measurand / Calibration item	Range of measurement	Calibration & Measurement Capability (k=2)*	Remarks
Dosimeters used in Diagnostic Radiology: - Ionization chambers - Solid state detectors - Electrometers	Energies : x-ray RQR, RQR-M, RQT according to ISO/IEC 61267 qualities	N_k : 2,2 % N_{PKA} : 2,5 % N_{PKL} : 3,0 %	ELOT EN 61674:2014 IEC 61267: 2005 IAEA TRS 457: 2007
Non invasive instruments used in diagnostic radiology for the measurement of the radiological parameters: - KVp-meters	High Voltage: 20kV – 35kV (mammographic applications) 50kV – 150kV (diagnostic applications)	2,0 %	IEC 61676:2002 + A1:2009 IAEA TRS 457: 2007
Personal dosimetric instruments: - Electronic dosimeters - Pen type dosimeters - TLD badges - Film badges	Energies : Cs137, x-ray N40-N200 (ISO Narrow) & Co60 Equivalent dose $H_p(10)$ & $H_p(0.07)$: 1 μ Sv – 10 μ Sv	$N_{H_p(10)}$: 4,6 % $N_{H_p(0.07)}$: 4,6 %	ISO 4037-1:2019 ISO 4037-2:2019 ISO 4037-3:2019 ISO 4037-4:2019 ELOT EN 61526:2013 IEC 62387:2020 IAEA TRS 16:2000 ICRU 39:1985 ICRU 43:1988 ICRU 47:1992 ICRU 51:1993

* Where uncertainty is accompanied by the corresponding unit, it is absolute, while where it is not accompanied by a unit, it is relative.

Site of assessment: **Permanent laboratory premises, P. Gregoriou E' & Neapoleos, Ag. Paraskevi, Attiki, Greece.**

Approved Signatories: **A. Boziari, E. Karinou.**

This Scope of Accreditation replaces the previous one dated May 31st, 2021.
The Accreditation Certificate No. **116-6**, to ELOT EN ISO/IEC 17025: 2017, is valid until 21.07.2023, according ESYD decision.

Athens, January 17th, 2023

