



# ATOMTEX®

Instruments and Technologies for Nuclear Measurements and Radiation Monitoring

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## CALIBRATION CERTIFICATE

Type: **BDKG-22**

Date of calibration: 15.02.2021.

S/N: 102

Measurement limits:

**BDKG-22:  $\nu$  0.1  $\mu$ Sv/h – 10 Sv/h:**

Measurement error:

**BDKG-22:  $\pm$ 20%**

Operating conditions:

- Air temperature +19,9 °C
- Atmospheric pressure 98,5 kPa
- Relative humidity 73,4 %
- Gamma radiation background 90,6 nSv/h

The instrument is calibrated on AT-130 standard dosimetry facility, No. 015, error  $\pm$ 4% (Certificate of Compliance No. 210-1427/18 as of 23.10.2018 issued by FGUP «D.I.Mendeleyev VNIIM», St. Petersburg, Russia); the instrument is calibrated on AT-110 standard dosimetry facility, No.013, error  $\pm$ 5% (Certificate of Compliance No.210-1426/18 as of 22.10.2018 issued by FGUP «D.I.Mendeleyev VNIIM», St.Petersburg, Russia)

### Calibration data

**BDKG-22 ( $\nu$ ) sn: 102**

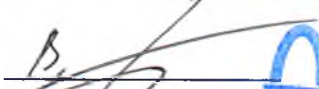
Dose rate at check point $\dot{H}_0(10)$	Radiation source number	Distance to source, R, cm	Dose rate measurement at check point,					Relative gamma radiation dose rate measurement error $\theta_{np}$ , %	Confidence limit of the intrinsic relative error $\Delta_i$ , % during calibration	Limits of intrinsic relative error, % not above
			Back-ground, nSv/h	Measured value $\dot{H}_i^*(10)$			Average value, $\dot{H}_i(10)$			
				$H_1$	$H_2$	$H_3$				
0,7 $\mu$ Sv/h	0HA	232.1	90,6	0,71	0,73	0,72	0,72	2,86	6,41	$\pm$ 20
7 $\mu$ Sv/h	0HA	74.5	—	6,67	6,85	6,59	6,70	-4,29	7,04	
70 $\mu$ Sv/h	9XK	161.3	—	70,0	68,9	71,1	70,0	0,00	5,50	
0.7 mSv/h	9XK	51.8	—	0,67	0,69	0,70	0,69	-1,43	5,61	
7,0 mSv/h	043	348.7	—	6,74	6,47	6,59	6,60	-5,71	7,93	
70 mSv/h	043	112,0	—	66,4	69,2	68,4	68,0	-2,86	5,50	
0,7 Sv/h	163	231.1	—	0,69	0,68	0,64	0,67	-4,29	6,22	
7 Sv/h	163	74.5	—	6,73	6,81	7,16	6,90	-1,43	4,54	

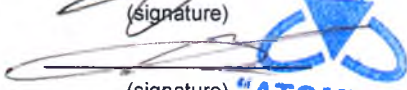
Calibrated by:

V. Pisarenko

Technical control:

N. Kurbatova

  
 (signature)

  
 (signature) "ATOMTEX"