



БГЦА	ВУ/112 02.3.0.0055
BSCA	СТБ 941.3

# VERIFICATION CERTIFICATE

## № MH0100388-4818

Verification date      March 30, 2018  
Valid till                March 30, 2020

**Measuring equipment** Automatic Irradiation Calibration System

**Type** SIGMA

**№** 1

**Metrological characteristics:**

Air kerma rate measurement range: from  $1.7454 \cdot 10^{-11}$  Gy/s to  $2.1268 \cdot 10^{-3}$  Gy/s;

Accuracy class (error):  $\pm 4$  %.

**Owner** Polimaster Ltd.

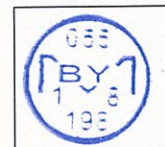
**Verified according to** GOST 8.087-2000

**Standards used:** standard of air kerma units and air kerma rate HЭ РБ 7-01

**Verification results (if necessary):** see appendix

*According to results of verification the measuring instrument is recognized as valid and qualified for using*

**Verification mark impression**



**Verification officer** \_\_\_\_\_

Zubarev V. N.

*This certificate confirms the traceability of measurements performed by using this measuring equipment to the international system of units SI, which are reproduced by national standards.*



## Verification results

The System operating distances range is from 0.50 m to 6.00 m.

Metrological characteristics values according to GOST 8.087-2000 are given in table 1 and dated 30.03.2018 00 h 00 min:

Table 1

Source No.	Source type	Isotope	Air kerma rate at operating point $K_{air}$ , Gy/s	Distance from source center to operating point R, m	Diameter $\varnothing$ of beam at distance 100.0 cm from source center D, m
242/89/ИТ	ГCs7.029.1	$^{137}\text{Cs}$	$5,293 \cdot 10^{-4}$	1,00	0,22
136/88/ИТ	ГCs7.028.1	$^{137}\text{Cs}$	$4,268 \cdot 10^{-5}$	1,00	0,30
9ПУ	ГCs7.021.6	$^{137}\text{Cs}$	$1,858 \cdot 10^{-6}$	1,00	0,26
54Н	ГCs7.021.2	$^{137}\text{Cs}$	$8,772 \cdot 10^{-8}$	1,00	0,26
НКО	ГCs7.012.10	$^{137}\text{Cs}$	$2,411 \cdot 10^{-8}$	1,00	0,26
ХТ8	ГCs7.012.6	$^{137}\text{Cs}$	$2,636 \cdot 10^{-9}$	1,00	0,26
430	ИГИА-5	$^{241}\text{Am}$	$7,623 \cdot 10^{-8}$	2,00	0,26
430	ИГИА-5	$^{241}\text{Am}+f$	$2,047 \cdot 10^{-8}$	2,00	0,26
449	ГИК-2-9	$^{60}\text{Co}$	$6,508 \cdot 10^{-10}$	1,00	0,26
С93	ГИК-2-9	$^{60}\text{Co}$	$1,567 \cdot 10^{-8}$	1,00	0,26

The Automatic Irradiation Calibration System can be used as operating standard of the 2-d category according to GOST 8.087-2000.

Verification officer



Zubarev V. N.