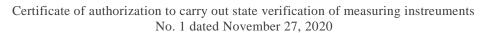
National unitary Institution «BELARUSSIAN STATE INSTITUTE OF METROLOGY»





CERTIFICATE OF STATE VERIFICATION № 1-MH0149034-4821

Date of state verification: October 08, 2021 Valid until: October 07, 2023

Measuring instruments: Automatic irradiation calibration system, type SIGMA

Identification number: 1

Mandatory metrological requirements:

The system operating distances range is from 0.5 m to 6.0 m;

Air kerma rate measurement range is from 2.381·10⁻¹¹ Gy/s to 1.950·10⁻³ Gy/s;

Accuracy class (error): ± 3.6 %.

Applicant: Polimaster Ltd.

State verification was carried out in accordance with the verification metology:

GOST 8.087-2000

using unit standards:

National standard for air kerma and air kerma rate unit H9 PE 7-01.

State verification results (if necessary):

The values of metrological characteristics in accordance with GOST 8.087-2000 are presented in table 1 and dated October 01, 2021

Table 1

Source No.	Source type	Isotope	Air kerma rate in operating point K _{air} , Gy/s	Distance from source center to operating point R, m	Diameter Ø of beam at distance 1.0 m from source center D, m
242/89/ИТ	ΓCs7.029.1	¹³⁷ Cs	4,852E-04	1,0	0,22
136/88/ИТ	ΓCs7.028.1	¹³⁷ Cs	3,953E-05	1,0	0,30
9ПУ	ΓCs7.021.6	¹³⁷ Cs	1,697E-06	1,0	0,34
54H	ΓCs7.021.2	¹³⁷ Cs	8,059E-08	1,0	0,26
НКО	ΓCs7.012.10	¹³⁷ Cs	2,405E-08	1,0	0,26
XT8	ΓCs7.012.6	¹³⁷ Cs	2,367E-09	1,0	0,26
511	ИГИА-3м	²⁴¹ Am	3,758E-09	1,0	0,26
511+ф	ИГИА-3м	²⁴¹ Am	1,006E-09	1,0	0,26
C93	ГИК-2-9	⁶⁰ Co	1,004E-08	1,0	0,26
679	ГИК-1-5	⁶⁰ Co	8,881E-10	1,0	0,34

The automatic irradiation calibration system can be used as operating standard of the 2-nd category according to STB 8083-2020.

Based on the results of the state verification, the measuring instrument complies with the mandatory metrological requirements and is recognized as suitable for use.

State verification mark impression:

State verification officer

Aliaksandr Parkhimchyk

signature decryption

Number of the state verification certificate 1-MH0149034-4821 Page 2 from 2					
This certificate confirms the traceability of measurements made using this measuring instrument to the International system of units (SI), which are reproduced through the National standard of air kerma and air kerma rate units H3 P6 7-01.					
Address of the legal entity authorized to conduct state verification: 93, Starovilensky trakt, Minsk, 220053, Belarus, tel.: 8-017-3546504; fax: 244-99-38					