

State reference materials of the absorbed dose of photon and electron emissions

DESIGNED FOR

measuring the absorbed dose of photon and electron radiation in water at radiation process installations with radioisotope sources and electron accelerators



CAN BE USED

in state metrological supervision, healthcare, environmental protection, chemical industry, food industry, radiation safety

Characteristics	GSO type				
	RM PD(f)-5/50	RM PD(F)E-5/50	RM PD(F)R-30/200	RM PD(A)-1/10	RM PD (DTS)-0,05/10
Registration number, period of validity	SRM 7865-2000, No 4715 till 19.11.2020	SRM 7904-2001, No 4801 till 20.06.2021	SRM 7903-2001, No 4800 till 20.06.2021	SRM 8916-2007, No 5389 till 21.02.2023	SRM 9447-2009, No 4036, till 04.12.2019
Range of absorbed doses, kGy	from 5 to 50	from 5 to 50	from 30 to 200	from 1 to 10	from 0,05 to 10
Power range of absorbed doses, Gy/s	from 10^{-1} to 10^5	from 10^{-1} to 10^5	from 10^{-1} to 10^5	from 10^{-1} to 10^5	from 10^{-2} to 10
Radiation energy range, MeV for photon radiation for electron radiation	0,66 and 1,25 from 0,3 to 10	0,66 and 1,25 from 0,3 to 10	0,66 and 1,25 from 0,3 to 10	0,66 and 1,25 from 0,3 to 10	0,66 and 1,25 -
Limits of permissible values of the relative error of certification at P=0,96,%	7	3	7	7	5 (50-500 Gy) 7 (1-10 kGy)
Relative error in measuring the absorbed dose using RM at P =0,95, not more than, %	12	7	15	15	10 (50-500 Gy) 15 (1-10 kGy)
Temperature during radiation, °C	from 15 to 40	from 15 to 40	from 15 to 40	from 15 to 40	from 15 to 40
Registration of optical density after irradiation	from 30 minutes to 4 days	from 30 minutes to 4 days	from 30 minutes to 4 days	from 30 minutes to 4 days	in 22-26 hours