

SCS Directory

Accreditation number: SCS 0075

International standard: ISO/IEC 17025:2017
 Swiss standard: SN EN ISO/IEC 17025:2018

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 Initial accreditation: 19.03.1997
 Current accreditation: 18.09.2017 to 17.09.2022
 Scope of accreditation see: www.sas.admin.ch
 (Accredited bodies)

Scope of accreditation as of 23.02.2021

Calibration laboratory for measuring instruments used for radiation protection

Calibration and Measurement Capability (CMC)

Type of radiation	Source of radiation	Measured quantity	Measuring range	Best Measurement Uncertainty \pm ¹⁾	Remarks
Photons	Cs-137	Dose equivalent _{a,b}	150 nSv/h ... 1.5 μ Sv/h > 1.5 μ Sv/h ... 3 Sv/h	5 % 3 %	8 sources
	Co-60	Dose equivalent _{a,b}	15 μ Sv/h ... 3 Sv/h	3 %	3 sources
	X-Ray unit	Dose equivalent _{a,b}	50 μ Sv/h ... 70 mSv/h	3 %	12 keV ... 250 keV
Neutrons	Am-Be	Dose equivalent _a	20 μ Sv/h ... 1.0 mSv/h	7 %	
	Cf-252	Dose equivalent _a	42 μ Sv/h ... 2.0 mSv/h	5 %	
	Cf-252 (D ₂ O)	Dose equivalent _a	11 μ Sv/h ... 0.5 mSv/h	8 %	

1) The given extended measurement uncertainty is the standard uncertainty of the measurement multiplied by an extension factor $k = 2$, which corresponds to a confidence level of about 95% for a normal distribution.



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Type of radiation	Source of radiation	Measured quantity	Measuring range	Best Measurement Uncertainty \pm ¹⁾	Remarks
α-,β-,γ-,x-emitters	Am-241	Activity	10 Bq ... 400 kBq	7 %	
	I-123				
	I-125				
	I-131				
	Co-60				
	Cs-137				
	K-40				
	Ba-133				
	Eu-152				
Pu-239					
α-,β-,γ-,x-emitters	Am-241	Activity per unit area	0.1 Bq/cm ² ... 5 kBq/cm ²	10 %	Based on the Swiss standard procedure (PSI Report No 07-01, 2007, ISSN 1019-0643) other nuclides are possible to determine
	C-14				
	Tc-99				
	Cl-36				
	Sr/Y-90				
	Fe-55				
	I-129				
	Co-57				
	Cs-137				
Co-60					
β- emitters	H-3	Activity per unit volume	0.1 MBq/m ³ ... 100 MBq/m ³	10 %	

^a $H_p(10)$, $H^*(10)$

^b $H_p(0.07)$, $H^*(0.07)$

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1) The given extended measurement uncertainty is the standard uncertainty of the measurement multiplied by an extension factor $k = 2$, which corresponds to a confidence level of about 95% for a normal distribution.