

Certificate of Participation

for the EURADOS Intercomparison 2022 for whole body dosimeters (IC2022ph)

Certificate Number:	EURADOS-IC2022ph-S049 for system S049/2022
Number of pages:	4
Date of Issue:	July 07 th , 2023
Participating Institute:	TECNORAD s.u.r.l., Italy
Dosimetry System:	Green TLD Badge
Reporting number:	7 (this anonymous number will be used in further publications)
Intercomparison procedure:	<p>The EURADOS Intercomparison 2022 for whole body dosimeters was managed and coordinated on behalf of EURADOS by the WG2 Intercomparison Organization Group (OG). The OG established the irradiation plan and announced the intercomparison, including the range limits of the doses and radiation qualities, in May 2022.</p> <p>Participants were asked to indicate details of the dosimeter reference point on the online application form. After completing application procedures the participants sent their dosimeters, according to the instructions, to the OG coordinator (July 2022). The coordinator checked the correct labelling of the dosimeters and transferred all dosimeters, along with the instructions, to the irradiation laboratory. The laboratory irradiated the dosimeters according to the irradiation plan and sent all the dosimeters back to the coordinator (November 2022).</p> <p>The coordinator then returned the dosimeters to the participants for assessment and indicated which dosimeters were not irradiated. The participants were instructed to follow normal routine procedures as far as possible. The participants then sent the results of the dosimeter readings to the coordinator (January 2023). After receipt of the participants' results, the coordinator sent the irradiation data to the participants.</p>
Number of participants:	96 institutes participated in IC2022ph with a total of 116 systems.
Coordinator:	Christian Gärtner (Seibersdorf Labor GmbH, A-2444 Seibersdorf)
Intercomparison results:	See the tables on pages 2 to 4 of this certificate.
Irradiation data:	See the attached certificate of the irradiation laboratory: Number Dos/2896-049/2022
Participant results:	See the attached signed dose report provided by the participant.

On behalf of the intercomparison
Organization Group:



Christian Gärtner
Coordinator

On behalf of EURADOS:



Filip Vanhavere
Chairperson

Whole body dosemeter intercomparison IC2022ph

Result of the Intercomparison (Dosimetry System S049/2022)

EURADOS Dosemeter ID	Participant's Dosemeter ID	Radiation Quality	Quantity	Participant's Value	Reference Value	Ratio
S049/2022-02	S049/2022-02	S-Cs, 0°	$H_p(10)$	2.46 mSv	2.50 mSv	0.98
			$H_p(0.07)$	2.46 mSv	2.50 mSv	0.98
S049/2022-16	S049/2022-16	S-Cs, 0°	$H_p(10)$	2.63 mSv	2.50 mSv	1.05
			$H_p(0.07)$	2.63 mSv	2.50 mSv	1.05
S049/2022-17	S049/2022-17	S-Cs, 0°	$H_p(10)$	2.55 mSv	2.50 mSv	1.02
			$H_p(0.07)$	2.55 mSv	2.50 mSv	1.02
S049/2022-25	S049/2022-25	S-Cs, 0°	$H_p(10)$	2.50 mSv	2.50 mSv	1.00
			$H_p(0.07)$	2.50 mSv	2.50 mSv	1.00
S049/2022-14	S049/2022-14	S-Cs, 0°	$H_p(10)$	8.24 mSv	8.30 mSv	0.99
			$H_p(0.07)$	8.24 mSv	8.30 mSv	0.99
S049/2022-23	S049/2022-23	S-Cs, 0°	$H_p(10)$	8.25 mSv	8.30 mSv	0.99
			$H_p(0.07)$	8.25 mSv	8.30 mSv	0.99
S049/2022-10	S049/2022-10	S-Co, 0°	$H_p(10)$	11.32 mSv	11.30 mSv	1.00
			$H_p(0.07)$	11.51 mSv	11.50 mSv	1.00
S049/2022-21	S049/2022-21	S-Co, 0°	$H_p(10)$	11.17 mSv	11.30 mSv	0.99
			$H_p(0.07)$	11.36 mSv	11.50 mSv	0.99
S049/2022-08	S049/2022-08	S-Co, 0°	$H_p(10)$	132.30 mSv	135.00 mSv	0.98
			$H_p(0.07)$	134.60 mSv	137.30 mSv	0.98
S049/2022-26	S049/2022-26	S-Co, 0°	$H_p(10)$	131.30 mSv	135.00 mSv	0.97
			$H_p(0.07)$	133.60 mSv	137.30 mSv	0.97

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Result of the Intercomparison (Dosimetry System S049/2022), continued

EURADOS Dosemeter ID	Participant's Dosemeter ID	Radiation Quality	Quantity	Participant's Value	Reference Value	Ratio
S049/2022-05	S049/2022-05	S-Co, 0°	$H_p(10)$	245.80 mSv	246.00 mSv	1.00
			$H_p(0.07)$	250.10 mSv	250.30 mSv	1.00
S049/2022-09	S049/2022-09	S-Co, 0°	$H_p(10)$	248.20 mSv	246.00 mSv	1.01
			$H_p(0.07)$	252.50 mSv	250.30 mSv	1.01
S049/2022-22	S049/2022-22	N-40, 0°	$H_p(10)$	5.45 mSv	5.38 mSv	1.01
			$H_p(0.07)$	5.77 mSv	5.69 mSv	1.01
S049/2022-24	S049/2022-24	N-40, 0°	$H_p(10)$	5.43 mSv	5.38 mSv	1.01
			$H_p(0.07)$	5.74 mSv	5.69 mSv	1.01
S049/2022-11	S049/2022-11	N-40 + S-Cs mixed, 0°	$H_p(10)$	4.15 mSv	3.60 mSv	1.15
			$H_p(0.07)$	3.78 mSv	3.73 mSv	1.01
S049/2022-15	S049/2022-15	N-40 + S-Cs mixed, 0°	$H_p(10)$	4.18 mSv	3.60 mSv	1.16
			$H_p(0.07)$	3.80 mSv	3.73 mSv	1.02
S049/2022-04	S049/2022-04	W-80, 0°	$H_p(10)$	7.14 mSv	7.10 mSv	1.01
			$H_p(0.07)$	6.62 mSv	6.58 mSv	1.01
S049/2022-20	S049/2022-20	W-80, 0°	$H_p(10)$	7.10 mSv	7.10 mSv	1.00
			$H_p(0.07)$	6.46 mSv	6.58 mSv	0.98
S049/2022-29	S049/2022-29	W-80, 60°	$H_p(10)$	5.41 mSv	5.00 mSv	1.08
			$H_p(0.07)$	4.92 mSv	5.40 mSv	0.91
S049/2022-30	S049/2022-30	W-80, 60°	$H_p(10)$	5.44 mSv	5.00 mSv	1.09
			$H_p(0.07)$	4.95 mSv	5.40 mSv	0.92

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Result of the Intercomparison (Dosimetry System S049/2022), continued

EURADOS Dosemeter ID	Participant's Dosemeter ID	Radiation Quality
S049/2022-01	S049/2022-01	not irradiated
S049/2022-03	S049/2022-03	not irradiated
S049/2022-06	S049/2022-06	not irradiated
S049/2022-07	S049/2022-07	not irradiated
S049/2022-12	S049/2022-12	not irradiated
S049/2022-13	S049/2022-13	not irradiated
S049/2022-18	S049/2022-18	not irradiated
S049/2022-19	S049/2022-19	not irradiated
S049/2022-27	S049/2022-27	not irradiated
S049/2022-28	S049/2022-28	not irradiated

Radiation Qualities and average photon energy (according to ISO 4037-1 and IEC 61267):

- Nuclide Radiation:
 - S-Cs: 662 keV
 - S-Co: 1250 keV
- X-Rays:
 - N-40: 33 keV
 - W-80: 56.5 keV