

Certificate of Participation

for the EURADOS Intercomparison 2016 for whole body dosimeters (IC2016ph)

Certificate Number: EURADOS-2016-S011 for system S011/2016

Number of pages: 4

Date of Issue: February 20th, 2017

Participating Institute: Landesanstalt für Personendosimetrie und Strahlenschutz Ausbildung
Mecklenburg-Vorpommern, Germany

Dosimetry System: OSL-Dosimeter with BeO-Detectors

Reporting number: 92 (this anonymous number will be used in further publications)

Intercomparison procedure: The EURADOS Intercomparison 2016 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 April 2016.

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 (June 2016). The coordinator checked the correct labelling of the dosimeters and transferred all dosimeters, along with the instructions, to the irradiation laboratories. The laboratories irradiated the dosimeters according to the irradiation plan and sent all the dosimeters back to the coordinator (September 2016).

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 (November 2016). After receipt of the participants' results, the coordinator sent the irradiation data to the participants.

Number of participants: 86 institutes participated in IC2016ph with a total of 103 systems.

Coordinator: H. Stadtmann, Ch. Gärtner (Seibersdorf Labor GmbH, A-2444 Seibersdorf)

Intercomparison results: See the table on pages 2 to 4 of this certificate.

Irradiation data: See the attached certificates of the irradiation laboratories:
Number 1021010_S011/2016 and Number LD-P037-11/16

Participant results: See the attached signed dose report provided by the participant.

On behalf of the intercomparison
Organization Group:



Hannes Stadtmann
Coordinator

On behalf of EURADOS:



Werner Rühm
Chairperson

Whole body dosimeter intercomparison IC2016ph

Result of the Intercomparison (Dosimetry System S011/2016)

EURADOS Dosemeter ID	Participant's Dosemeter ID	Radiation Quality	Quantity	Participant's Value	Reference Value	Response
S011/2016-08	S011/2016-08 080984 11	S-Cs, 0°	$H_p(10)$	0.615 mSv	0.522 mSv	1.178
			$H_p(0.07)$	0.621 mSv	0.522 mSv	1.190
S011/2016-12	S011/2016-12 080986 16	S-Cs, 0°	$H_p(10)$	0.631 mSv	0.522 mSv	1.209
			$H_p(0.07)$	0.631 mSv	0.522 mSv	1.209
S011/2016-09	S011/2016-09 081330 47	S-Cs, 0°	$H_p(10)$	5.359 mSv	4.489 mSv	1.194
			$H_p(0.07)$	5.330 mSv	4.489 mSv	1.187
S011/2016-15	S011/2016-15 080986 08	S-Cs, 0°	$H_p(10)$	5.349 mSv	4.489 mSv	1.191
			$H_p(0.07)$	5.400 mSv	4.489 mSv	1.203
S011/2016-20	S011/2016-20 080995 56	S-Cs, 0°	$H_p(10)$	5.299 mSv	4.489 mSv	1.180
			$H_p(0.07)$	5.470 mSv	4.489 mSv	1.218
S011/2016-21	S011/2016-21 080998 71	S-Cs, 0°	$H_p(10)$	5.279 mSv	4.489 mSv	1.176
			$H_p(0.07)$	5.340 mSv	4.489 mSv	1.189
S011/2016-04	S011/2016-04 080999 75	S-Co, 0°	$H_p(10)$	0.630 mSv	0.519 mSv	1.214
			$H_p(0.07)$	0.552 mSv	0.528 mSv	1.045
S011/2016-29	S011/2016-29 080855 37	S-Co, 0°	$H_p(10)$	0.634 mSv	0.519 mSv	1.221
			$H_p(0.07)$	0.660 mSv	0.528 mSv	1.250
S011/2016-13	S011/2016-13 080987 71	S-Co, 0°	$H_p(10)$	135.000 mSv	110.574 mSv	1.221
			$H_p(0.07)$	140.000 mSv	112.497 mSv	1.244
S011/2016-30	S011/2016-30 080814 37	S-Co, 0°	$H_p(10)$	137.000 mSv	110.574 mSv	1.239
			$H_p(0.07)$	143.000 mSv	112.497 mSv	1.271

Whole body dosimeter intercomparison IC2016ph

Result of the Intercomparison (Dosimetry System S011/2016), continued

EURADOS Dosemeter ID	Participant's Dosemeter ID	Radiation Quality	Quantity	Participant's Value	Reference Value	Response
S011/2016-07	S011/2016-07 081101 43	S-Co, 0°	$H_p(10)$	568.000 mSv	479.781 mSv	1.184
			$H_p(0.07)$	585.000 mSv	488.125 mSv	1.198
S011/2016-26	S011/2016-26 081000 08	S-Co, 0°	$H_p(10)$	571.000 mSv	479.781 mSv	1.190
			$H_p(0.07)$	581.000 mSv	488.125 mSv	1.190
S011/2016-14	S011/2016-14 081183 40	N-40, -60°	$H_p(10)$	1.069 mSv	0.930 mSv	1.149
			$H_p(0.07)$	1.180 mSv	1.300 mSv	0.908
S011/2016-06	S011/2016-06 080988 96	N-40, +60°	$H_p(10)$	1.029 mSv	0.930 mSv	1.106
			$H_p(0.07)$	1.200 mSv	1.300 mSv	0.923
S011/2016-19	S011/2016-19 080999 68	N-40, 0°	$H_p(10)$	0.979 mSv	1.040 mSv	0.941
			$H_p(0.07)$	1.120 mSv	1.130 mSv	0.991
S011/2016-27	S011/2016-27 080991 42	N-40, 0°	$H_p(10)$	1.009 mSv	1.040 mSv	0.970
			$H_p(0.07)$	1.090 mSv	1.130 mSv	0.965
S011/2016-10	S011/2016-10 080969 80	N-150, -45°	$H_p(10)$	1.849 mSv	1.980 mSv	0.934
			$H_p(0.07)$	1.890 mSv	1.950 mSv	0.969
S011/2016-03	S011/2016-03 080826 52	N-150, +45°	$H_p(10)$	1.789 mSv	1.980 mSv	0.904
			$H_p(0.07)$	1.900 mSv	1.950 mSv	0.974
S011/2016-17	S011/2016-17 081176 27	N-150, 0°	$H_p(10)$	1.959 mSv	2.130 mSv	0.920
			$H_p(0.07)$	1.870 mSv	1.980 mSv	0.944
S011/2016-18	S011/2016-18 080891 46	N-150, 0°	$H_p(10)$	1.969 mSv	2.130 mSv	0.924
			$H_p(0.07)$	1.870 mSv	1.980 mSv	0.944
S011/2016-22	S011/2016-22 080739 11	Mixed S-Cs + Sr-90, 0°	$H_p(10)$	3.009 mSv	2.403 mSv	1.252
			$H_p(0.07)$	5.800 mSv	4.819 mSv	1.204
S011/2016-23	S011/2016-23 081041 72	Mixed S-Cs + Sr-90, 0°	$H_p(10)$	2.939 mSv	2.403 mSv	1.223
			$H_p(0.07)$	5.810 mSv	4.819 mSv	1.206

Mixed Irradiation (Reference Value):

S011/2016-22: $H_p(0.07) = 2.403 \text{ mSv (S-Cs)} + 2.416 \text{ mSv (Sr-90)}$

S011/2016-23: $H_p(0.07) = 2.403 \text{ mSv (S-Cs)} + 2.416 \text{ mSv (Sr-90)}$