

Irradiation Panel Dosimetry Proficiency Test 2010

Please complete details in cells shaded blue

Notes:

- "Minimum temperature" is the lowest temperature experienced by the dosimeter during irradiation.
- "Maximum temperature" is the highest temperature experienced by the dosimeter during irradiation.

Company:	Risø HDRL
Contact name:	Arne Miller
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Radiation type:	10 MeV electrons

Dosimeter number	Minimum temperature (deg C)	Maximum temperature (deg C)	Delivered dose (kGy)	Risø alanine	Comments		NPL	Ratio Risø/NPL	Corrected Risø	NPL	Ratio Risø/NPL
					Measured s.d. 4 Risø pellets %	Combined s.d. %					
911	21,7	25,5	4,82	503	1,15	1,7	4,82	1,000	4,82	4,82	1,000
912	21,7	25,5	4,83	504	0,45	1,3	4,8	1,006	4,83	4,8	1,006
913	20,6	28,1	9,75	505	0,13	1,2	9,77	0,998	9,76	9,77	0,999
914	20,6	28,1	9,73	506	1,15	1,7	9,67	1,006	9,73	9,67	1,006
915	20,7	32,1	14,6	507	0,86	1,5	14,73	0,991	14,6	14,73	0,991
916	20,7	32,1	14,5	508	0,85	1,5	14,54	0,997	14,5	14,54	0,997
917	21,3	39,4	25,1	509	0,88	1,5	24,4	1,029	24,9	24,4	1,020
918	21,3	39,4	25,0	510	1,61	2,0	24,3	1,029	24,8	24,3	1,021
919	21,4	53,9	51,9	511	1,28	1,8	52,3	0,992	51,9	52,3	0,992
920	21,4	53,9	52,6	512	1,20	1,7	52,3	1,006	52,6	52,3	1,006
921	20,9	56,4	52,0	513	0,79	1,4	50,7	1,026	50,8	50,7	1,002
922	20,9	56,4	51,1	514	0,97	1,5	50,6	1,010	51,1	50,6	1,010

Comments:

Irradiation facility: Sterigenics 10 MeV rhodotron accelerator
Date of irradiation: 2010.06.01

One NPL alanine and one Risø alanine were irradiated together in one Risø phantom
Two phantoms were irradiated together in one tray

All doses were given in one pass on the conveyor
Except the set 921-922 that was irradiated in two passes, shortly after each other, at 2 x 25 kGy nominal
For this irradiation the dosimeters satyed in the same phantom

Risø alanine Harwell AL576C
Calibration Risø Gamma cell 3
Calibration uncertainty, 1 s.d. 1,2

Temperatures were measured with one polystyrene calorimeter placed in the same tray as the phantoms

Signed:



Date: