



FWT-60-00 Batch Characterization

Batch 1127

Typical Calibration Curve

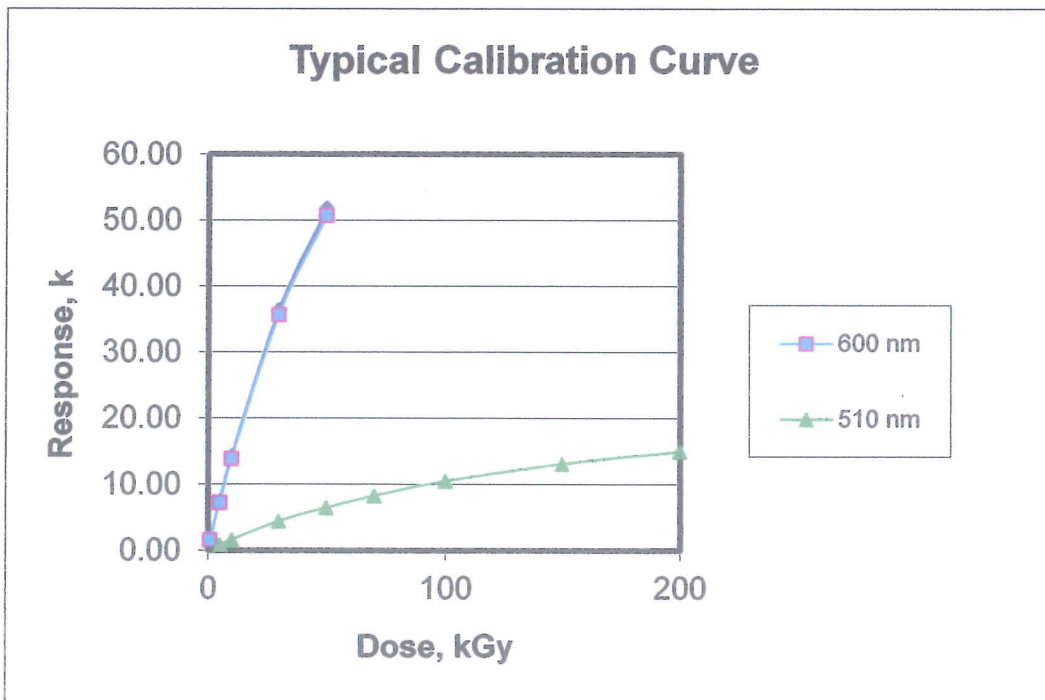
(Dosimeters pre-conditioned to 20 °C and 50%RH)

Dose, kGy	k, mm ⁻¹ at 605 nm	k, mm ⁻¹ at 600 nm	k, mm ⁻¹ at 510 nm
1	1.68	1.64	
5	7.49	7.31	0.88
10	14.32	13.98	1.70
30	36.48	35.76	4.50
50	51.82	50.83	6.56
70			8.36
100			10.59
150			13.20
200			15.04

Coefficient of Variation of k

605 nm	600 nm	510 nm
2.6%	2.6%	3.7%

Note: k is the specific absorbance and is determined from the thickness, t, and final and initial absorbances Af and Ai:
 $k = (A_f - A_i) / t$



This typical calibration curve is provided as a guide to the response of FWT-60-00 Radiachromic Detectors to ionizing radiation. Actual response also depends on processing parameters and on the instrumentation used to measure absorbancies and thicknesses.

Scott A. Larson
Authorization for Release

5 December 2013
Date



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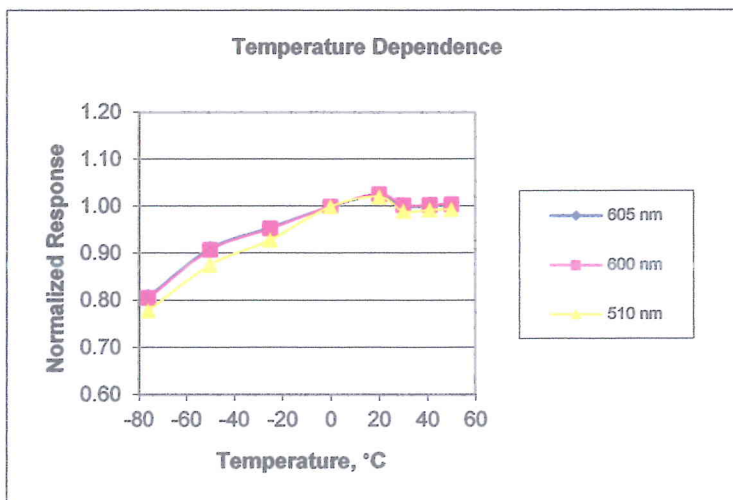
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Temperature Dependence

(Dosimeters pre-conditioned to 20 °C and 50%RH)

T, °C	k, mm ⁻¹ at 605 nm	k, mm ⁻¹ at 600 nm	k, mm ⁻¹ at 510 nm
-76	28.70	27.99	3.42
-50	32.33	31.54	3.85
-25	33.91	33.11	4.08
0	35.51	34.73	4.39
20	36.39	35.64	4.49
30	35.54	34.81	4.35
41	35.58	34.84	4.36
50	35.64	34.89	4.37

T, °C	Norm. k at 605 nm	Norm k at 600 nm	Norm k at 510 nm
-76	0.81	0.81	0.78
-50	0.91	0.91	0.88
-25	0.95	0.95	0.93
0	1.00	1.00	1.00
20	1.02	1.03	1.02
30	1.00	1.00	0.99
41	1.00	1.00	0.99
50	1.00	1.00	0.99



Humidity Dependence

(Dosimeters pre-conditioned to the indicated humidity at 20 °C)

%RH	k, mm ⁻¹ at 605 nm	k, mm ⁻¹ at 600 nm	k, mm ⁻¹ at 510 nm
25	37.52	36.78	4.84
37	37.10	36.38	4.62
44	37.19	36.46	4.57
49	36.59	35.87	4.50
54	35.38	34.65	4.30
60	33.51	32.78	4.11

%RH	Norm. k at 605 nm	Norm k at 600 nm	Norm k at 510 nm
25	1.01	1.03	1.07
37	0.99	1.01	1.03
44	1.00	1.02	1.02
49	0.98	1.00	1.00
54	0.95	0.97	0.96
60	0.90	0.91	0.91

