



FWT-60-00 Batch Characterization
 Batch 1114

Typical Calibration Curve

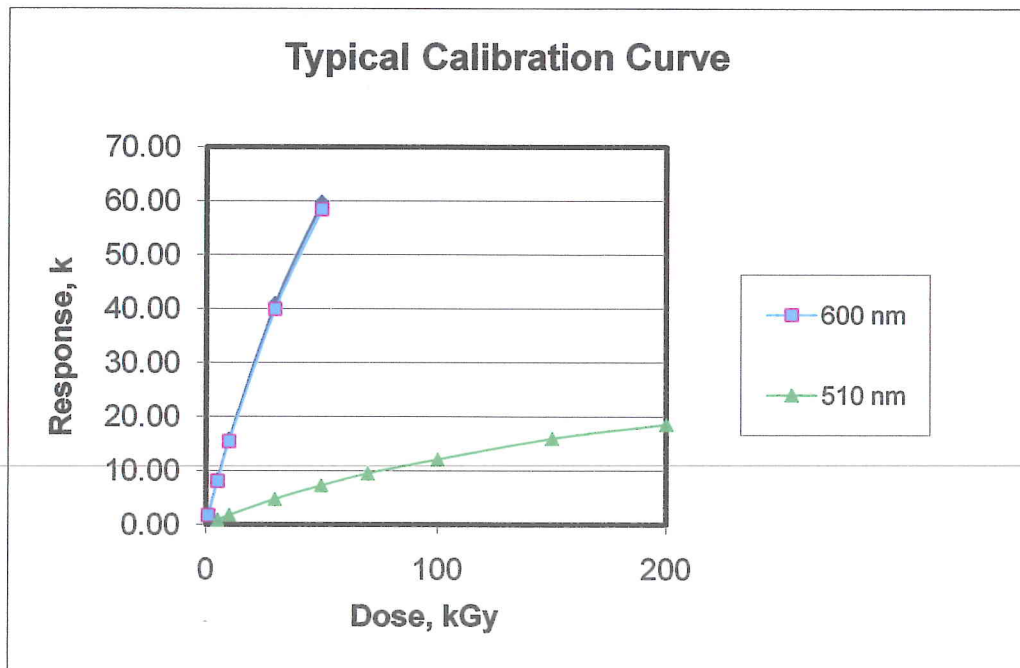
(Dosimeters pre-conditioned to 20 °C and 50%RH)

Dose, kGy	k, mm ⁻¹ at 605 nm	k, mm ⁻¹ at 600 nm	k, mm ⁻¹ at 510 nm
1	1.79	1.72	
5	8.34	8.10	0.92
10	15.86	15.43	1.80
30	40.97	39.93	4.76
50	59.80	58.43	7.28
70			9.49
100			12.09
150			15.94
200			18.57

Coefficient of Variation of k

605 nm	600 nm	510 nm
1.7%	1.7%	1.9%

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 the instrumentation used to measure absorbancies and thicknesses.

John D. Richey
 Authorization for Release

4-21-2011
 Date



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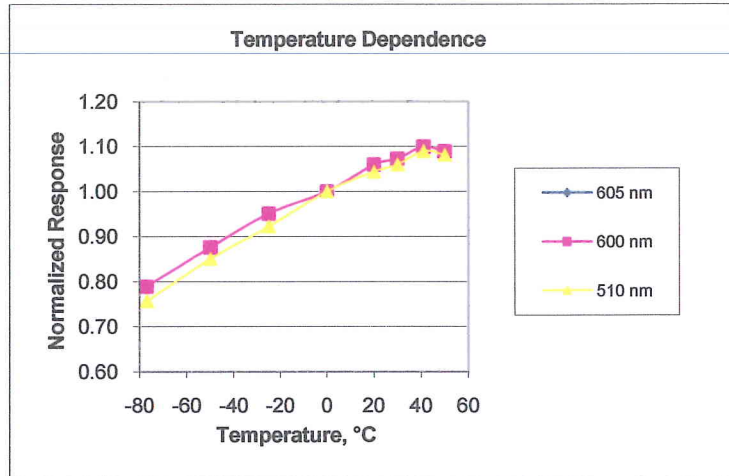
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Temperature Dependence

(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
-77	30.90	30.04	3.54
-50	34.29	33.37	3.98
-25	37.24	36.22	4.32
0	39.10	38.09	4.68
20	41.38	40.36	4.88
30	41.87	40.86	4.96
41	42.88	41.88	5.10
50	42.37	41.47	5.06

T, °C	Norm. k at 605 nm	Norm k at 600 nm	Norm k at 510 nm
-77	0.79	0.79	0.76
-50	0.88	0.88	0.85
-25	0.95	0.95	0.92
0	1.00	1.00	1.00
20	1.06	1.06	1.04
30	1.07	1.07	1.06
41	1.10	1.10	1.09
50	1.08	1.09	1.08



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
29	40.59	39.56	4.95
40	41.44	40.41	4.88
44	40.79	39.75	4.74
50	40.66	39.63	4.74
55	39.36	38.35	4.56
60	37.94	36.97	4.39

%RH	Norm. k at 605 nm	Norm k at 600 nm	Norm k at 510 nm
29	0.97	1.00	1.05
40	0.99	1.02	1.03
44	0.98	1.00	1.00
50	0.97	1.00	1.00
55	0.94	0.97	0.96
60	0.91	0.93	0.93

